



The
University
Of
Sheffield.

Intersecting Spaces

Exploring Architectural Students' Meaning-Making through a

Social Semiotic Multimodality Lens

Volume Two: Appendices

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Appendices

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Appendices

Appendix 1: Transcripts

Appendix 1A: Focus Group Matrices

FOCUS GROUP SUMMARY SHEET A (FINAL): THEMES AND IDEAS

preliminary codes	1st construct done previously check notes - used in may presentation etc		IDEAS	refined reduced codes- THEMES
CODE 1	SEQUENCING PROPOSED RESEARCH TOOLS	The research project – tools - process	initially the questionnaire was to come first as a result of resequencing I observed the review event, then administered the questionnaire and lastly, interviewed the participants	1 The Research Project
CODE 2	PROTOCOLS - THE HOW OF OBSERVATION PROCESS	The research project – tools - observation protocols,	The multimodal observation transcript is the core object of analysis for this study – the themes and ideas emerging from the focus group discussion with my colleagues, the questionnaire and interview process are intended to feed into, underpin and corroborate the findings -	
CODE 3	DELIMITING - SCOPING, BOUNDARIES AND LIMITS PRECEDENTS STUDY	The research project and case	Scoping the study, boundaries/limits	
CODE 6	REASONING - RATIONALE FOR 'SNAPSHOT' – OBSERVING THE INITIAL PRECEDENT STUDY REVIEW MAPPING STUDY TO EXPLORE ROLES RELATIONSHIPS – NATURE OF STUDY	The research project - rationale for snapshot – observing the review	The research - rationale for snapshot - concrete, tangible, small scale, all participants going through this process at one time facilitates observation in less intrusive way, more manageable - extensive body of research in multimodality across number of strands - not so in architecture social semiotic strand mapping meaning making - first step of much longer research journey - small scale starting point - link to Thomas (2016); Bezemer and Kress (2016); Jewitt (2009)	
CODE7	INFORMING - RECEIVING - INFORMED CONSENT/ETHICAL CONSIDERATION/EFFECTS - INFLUENCING THE RESEARCH SITE	The research project - ethical considerations and informed consent	Ethical considerations - informed consent versus minimum info to not influence participants The research - sequencing of research tools to minimise impact; diachronic nature of research and designing link to Thomas (2016); ethical considerations - informed consent versus minimum info to not influence participants	
CODE 9	RESEARCHER INFLUENCING THE RESEARCH SITE – CONDITIONS, PARTICIPANTS	The research project – insider role	No matter what I do to minimise it I imagine the students approach and performance during the review will be somewhat affected by the fact that I am observing using a video and audio device	
CODE 10	NATURALISTIC APPROACH TO THE RESEARCH STUDY – LOOKING AT SOMETHING SPECIFIC AND CONCRETE	The research project – approach to study	the researcher - constructivist position naturalistic approach and insider in research context	
CODE 11	INSIDER RESEARCHER RESEARCHING – WORKING ON THE PROGRAMME LONG NUMBER OF YEARS	The research project – insider influence	the researcher - constructivist position naturalistic approach and insider in research context	
CODE 12	DIACHRONIC NATURE OF THE RESEARCH STUDY ITSELF, THE MEANING-MAKING IN THIS CONTEXT ETC. UNFOLDS OVER TIME – PREPARATION AND THE PROCESS OF THE OBSERVATION, QUESTIONNAIRE AND INTERVIEWS	The Research project – links between diachronic nature of the study – and precedent study task, designing	Deal with this in two respects – research process itself – in terms of designing the study, collecting data, analysing and presenting and then also in terms of the ASPs carrying out the initial precedent study task	
CODE 15	MEANING-MAKING WHAT I AM DOING	The research project – what I am doing	Mapping study to explore the roles and relationships of the multimodal modes in architectural setting - nature of the study is explanatory/mapping/thick description - not measuring anything. Trying to get at the dynamic nature of the meaning making	
CODE 17	SHAPING IMPACT OF VALUES AND BELIEFS ON LEARNING BEHAVIOUR FROM MULTIMODAL PERSPECTIVE - LINKED TO HOW QUESTIONNAIRE COMPOSED	The research project – impact of habituated expectations, values on research, precedent study	Habituated expectations – meaning schemes, meaning perspectives, conceptual metaphors – link to Mezirow (1991); Lakoff and Johnson (1980)	
CODE 18	CONSTRUCTING POSITION – CONSTRUCTIVIST/CONSTRUCTIONIST	The research project – my constructivist position	The researcher - constructivist position naturalistic approach and insider in research context	2 Multimodality
CODE 8	USING LANGUAGE ASPS CAN UNDERSTAND (TERMINOLOGY/MIMIC THEIR LANGUAGE)	Multimodality – translation process – using language participants can understand	important the ASPs understand what I am talking about so I need to use language they are familiar with – express multimodality principles in their everyday language terms	
CODE 13	MAKING MEANING MULTIMODALLY - ENVIRONMENT - DEFINING THE REVIEW EVENT AND HIGHLIGHTING DIFFERENT TYPES - ENVIRONMENT OF THE CRIT VERSUS DESKTOP CRIT	Multimodality - multimodal meaning making environment in the study – the crit	impact of environment/design context on what modes are used - meaning-making using multimodal modes in range of different precedent study contexts - review (formal, informal) - desktop crit- chatting with peers, working with self - active nature of orchestrated ensemble	
CODE 14	MULTIMODALITY QUESTION - CONTESTING MEANING MAKING AS KNOWLEDGE PRODUCTION	Multimodality – operating multimodally	contested nature of knowledge production - architectural knowledge - different kinds link to cross - different values put on creativity knowledge versus research knowledge - issue is the ability of the student to synthesise learning from research creatively in the designing process - abductive as well as inductive and deductive process - steered away from looking at this element because one I am not a psychologist and two not the appropriate starting point?	
CODE 16	IDENTIFYING THE ACTIVE NATURE OF USING /MECHANISMS ASSOCIATED WITH USING THE MULTIMODAL MEANING-MAKING ORCHESTRATED ENSEMBLE DURING THE OBSERVATION EVENT	Multimodality - active and dynamic nature of meaning making during the observed event	important here though to note that ASPs have to go through the translating, transducing process which involves making their own visual media and overlaying analysis - in order to be able 'perform' their orchestrated ensemble fluidly and at the right level – the dynamic interplay is dependent on this (not just cut and paste) – work that goes in while addressing the task impacts on the meaning making	
CODE 19	DIFFERENT MODES IN DIFFERENT KINDS OF ORCHESTRATED ENSEMBLES IN DIFFERENT DIALOGUE SCENARIOS TO DO WITH PRECEDENTS IN THE DESIGNING PROCESS	Multimodality – role of modes in different review environments/context – functional specialisms	impact of environment/design context on what modes are used - meaning-making using multimodal modes in range of different precedent study contexts - review (formal, informal) - desktop crit- chatting with peers, working with self - active nature of orchestrated ensemble	
CODE 20	INDIVIDUALISING USE OF MULTIMODAL RESOURCES – but surely, we have expectations and we are socialising them into a way of operating - process taught and process led...	Multimodality – learning to and using multimodal resources	Multimodality lens offers the space and distance to look at the architectural meaning making holistically – what do we need to incorporate into our teaching and learning practices to make architectural meaning multimodally that embodies higher order learning – visual and mental	
CODE 21	CONSTRUCTING ARCHITECTURAL MEANING MULTIMODALLY constructing meaning /knowledge multimodally in architectural setting	Multimodality – differing perspectives on the architectural meaning making process	impact of individual - personal choice of modes in meaning -making - issue of socialisation into community of practice (CoP)- Kramler and Thomson 2014 - (functional specialism of modes/ visual media – literacy)	
CODE 22	INTEREST - WHAT GRABS THEIR ATTENTION - WHAT GRABS OUR ATTENTION AND WHY? -interest - what grabs the ASPs interest as they set about the initial precedent study task	Multimodality – interest – link to social semiotic strand	Key social semiotic meaning making principle	
CODE 24	REFLECTING, REVIEWING AND REFINING AFTER REVIEWS - REFLECTIVE CONVERSATION WITH SELF AND OTHERS AFTER REVIEW EVENT	Multimodality – learning - critical reflection	reflective dialogue after the event between ASPs and myself - part of the constructing of meaning process multimodally – feeds into and underpins what emerges from observation analysis	
CODE 4	ITERATING, REPEATING, REITERATING PROCESS - ITERATIVE NATURE OF PRECEDENT STUDY IN ARCHITECTURAL DESIGNING -	Architectural precedents - The nature of precedent study in an architectural context	iteration is the act of repeating a process, either to generate an unbounded sequence of outcomes, or with the aim of approaching a desired goal, target or result	
CODE 5	FUNCTIONING ROLES - ROLE OF BRIEF AS CONSTRUCTED BY DESIGN STUDIO TUTORS	Architectural precedents - The role of the brief and its impact on the initial precedent study	Are there clues in the project brief? Role of the brief in the precedent study task	
CODE 23	LEARNING	Learning and transformation- contested nature of knowledge production – different kinds of learning valued differently – critical reflection	contested nature of knowledge production - architectural knowledge - different kinds link to cross - different values put on creativity knowledge versus research knowledge - issue is the ability of the student to synthesise learning from research creatively in the designing process - abductive as well as inductive and deductive process - steered away from focusing on this element because one I am not a psychologist and two not the appropriate starting point?	4 Learning

Figure 1: Staff Focus Group

STAFF FOCUS GROUP SUMMARY SHEET B: THEMES AND IDEAS

	CODES	LABEL		NOTES	ANALYTIC MEMO
	CODE 1	SEQUENCING PROPOSED RESEARCH TOOLS	The research project – tools - process	initially the questionnaire was to come first as a result of resequencing I observed the review event, then administered the questionnaire and lastly, interviewed the participants	Administering research tools – questionnaire, observation of review event, and semi-structured interviews - this discussion lead to a revision of the sequencing of the research tools so that I minimised influencing the ASPs
	CODE 2	PROTOCOLS - THE HOW OF OBSERVATION PROCESS	The research project – tools - observation protocols,	The multimodal observation transcript is the core object of analysis for this study – the themes and ideas emerging from the focus group discussion with my colleagues, the questionnaire and interview process are intended to feed into, underpin and corroborate the findings -	This discussion underpinned and was the basis for my decision to not make field notes while filming and audio recording – as it happens it would have been impossible to do both activities at once – both would have been done badly. I had a discussion with David about this – better to record as accurately as I could as I would then have a fuller record that I could refer to over and over during the analysis process. Once I was into the observing process I realised my deafness had a part to play here to. I could not attend to what was happening properly if I tried to take notes also – captured on audio. This is true of the focus group discussion process also – I did not prepare a script as such because I had one question that needed answering – would my research tools as designed generate the data I needed to answer my research questions - face validity. I responded to individual questions about the research and the research process as the discussion developed
	CODE 3	DELIMITING - SCOPING, BOUNDARIES AND LIMITS PRECEDENTS STUDY	The research project and case	Scoping the study, boundaries/limits	Question about how scope, boundaries limitations – precedent studies. Just looking at the initial precedent study review event – part of a much larger iterative process that flows through the designing process – link this to literature - My colleagues seeking clarity around what I am exploring and what it means in terms of architectural meaning-making
	CODE 4	ITERATING, REPEATING, REITERATING PROCESS - ITERATIVE NATURE OF PRECEDENT STUDY IN ARCHITECTURAL DESIGNING -	Architectural precedents - The nature of precedent study in an architectural context	iteration is the act of repeating a process, either to generate an unbounded sequence of outcomes, or with the aim of approaching a desired goal, target or result	This is an important issue I need to make clear the iterative nature of precedent study in designing – I chose to take a snapshot of something specific, concrete and tangible – one kind of review event- semi formal review for the initial precedent study task - semi formal - to class peers and tutors not informal/desktop – to identify roles/relationships/map the ways that the ASPs used the 'artefacts' they produced during the task as part of an orchestrated ensemble to communicate multimodally and make meaning as they 'performed' their orchestrated ensemble – talk, gesture, movement, visual image, analytical sketch.... link to Bezemer and Kress (2016); Kress (2010)
	CODE 5	FUNCTIONING ROLES - ROLE OF BRIEF AS CONSTRUCTED BY DESIGN STUDIO TUTORS	Architectural precedents - The role of the brief and its impact on the initial precedent study	Are there clues in the project brief? Role of the brief in the precedent study task	This needs to be discussed in my writing – part of the contextual information about what is expected at the start of the data analysis chapter - as the ASPs are responding to the task for initial precedent study - as set out in this brief which is part of a much larger brief – guides the ASPs designing process - series of briefs
code 6, 7, 9, 10 and 11 connected - may make sense to pull all under one code to do with the 'case'	CODE 6	REASONING - RATIONALE FOR "SNAPSHOT" – OBSERVING THE INITIAL PRECEDENT STUDY REVIEW MAPPING STUDY TO EXPLORE ROLES RELATIONSHIPS – NATURE OF STUDY	The research project - rationale for snapshot – observing the review	The research - rationale for snapshot - concrete, tangible, small scale, all participants going through this process at one time facilitates observation in less intrusive way, more manageable - extensive body of research in multimodality across number of strands - not so in architecture social semiotic strand mapping meaning making - first step of much longer research journey - small scale starting point - link to Thomas (2016); Bezemer and Kress (2016); Jewitt (2009)	Rather than carrying out an extended observation of the ASPs precedent studies that flowed through the whole project. Need to set out why I could not do this – nature of study – mapping meaning-making in one concrete event – also teaching full time so not able to follow them through studio over the full course of the project – also time constraints – also the intrusive nature of following them over the course of the whole project – the ramifications – organisational issues – things changed even for this one event – had to reschedule observation – knock on effect on questionnaire and interviews – and changing focus in brief the initial precedent study was subsumed into larger task rather than being a stand-alone task as it often is. This was because the students were looking at policy to do with affordable social housing - part of reason for this choice had to do with fact in this scenario all students gathered together run through critique easier to manage than around the desktop when arguably they would have been talking about a number of things at the same time – link to Thomas (2016)
	CODE 7	INFORMING - RECEIVING - INFORMED CONSENT/ETHICAL CONSIDERATION/EFFECTS - INFLUENCING THE RESEARCH SITE	The research project - ethical considerations and informed consent	Ethical considerations - informed consent versus minimum info to not influence participants The research - sequencing of research tools to minimise impact; diachronic nature of research and designing link to Thomas (2016); ethical considerations - informed consent versus minimum info to not influence participants	This issue has to do with letting the ASPs know what the study is about, and what their participation entails so that they can make an informed decision about participating. Also it probably has to do with the effects of informing them in terms of their considered (reflective/critical response) – However points to the dilemma inherent in this – too much information at the wrong time and the perception from my colleagues is this could possibly lead to the ASPs focusing more on responding to the research rather than addressing the brief task – ASPs might have a perception being judged on their values for instance (questionnaire/information sheet) – so feeling was the least amount of information possible at the beginning before the observation - not to compromise the review event (what was being observed) so that it runs as normally as possible and students are focusing on the brief task – while on the other hand informing them enough about the research and their role in it so that they can respond reflectively and critically in the questionnaire and interview processes associated with the observed review event.
	CODE 8	USING LANGUAGE ASPs CAN UNDERSTAND (TERMINOLOGY/MIMIC THEIR LANGUAGE)	Multimodality – translation process – using language participants can understand	important the ASPs understand what I am talking about so I need to use language they are familiar with – express multimodality principles in their everyday language terms	This topic is to do with using words the ASPs can understand when I am speaking to them about the research – translating the multimodality language into language terms they are accustomed to – suggestions about active listening – feeding back to the ASPs in the language the ASPs use themselves during our dialogue. Did that happen in the meeting with them, in the interviews – need to look for this?
	CODE 9	RESEARCHER INFLUENCING THE RESEARCH SITE – CONDITIONS, PARTICIPANTS	The research project – insider role	No matter what I do to minimise it I imagine the students approach and performance during the review will be somewhat affected by the fact that I am observing using a video and audio device	Giving the ASPs the minimum amount of information possible so as not to influence what happens during the review event – or influence students in how they go about the initial precedent study task but at same time enough to make informed decision/give consent – make sure they focus on the task not on responding to me in the research study. I reacted and took on board this comment – rearranged the sequencing of the tools – have to amend the method chapter to reflect this – understood the rightness of what was being said
	CODE 10	NATURALISTIC APPROACH TO THE RESEARCH STUDY – LOOKING AT SOMETHING SPECIFIC AND CONCRETE	The research project – approach to study	the researcher - constructivist position naturalistic approach and insider in research context	Exploring something as it happens live in a specific architectural education context that I am a part of as an insider – trying to let the event run as normally as possible given that I am there recording with a video and audio device and I would not normally be present in this informal review scenario because I do not teach in third year studio - Also this approach is linked to my constructivist position - that we make meaning as individuals and collectively in all our social situations - my situation is an arch ed learning context -specific domain applying multimodality thinking to it
	CODE 11	INSIDER RESEARCHER RESEARCHING – WORKING ON THE PROGRAMME LONG NUMBER OF YEARS	The research project – insider influence	the researcher - constructivist position naturalistic approach and insider in research context	This means I have an established relationship as a design tutor and module lecturer already established with the ASPs. There are pluses and minuses associated with this from a research/researcher perspective that I need to explicate in my writing – trust, might tell me what they think I want to hear – confidentiality came up as issue in the information meeting – would I be anonymising comments if they were about design staff... My response to this was all commentary from all involved will be anonymised... link to Mercer (2007)
	CODE 12	DIACHRONIC NATURE OF THE RESEARCH STUDY ITSELF, THE MEANING-MAKING IN THIS CONTEXT ETC. UNFOLDS OVER TIME – PREPARATION AND THE PROCESS OF THE OBSERVATION, QUESTIONNAIRE AND INTERVIEWS	The Research project – links between diachronic nature of the study – and precedent study task, designing	Deal with this in two respects – research process itself – in terms of designing the study, collecting data, analysing and presenting and then also in terms of the ASPs carrying out the initial precedent study task	I need to discuss the diachronic nature of the research process and the designing process they are interconnected and impact – evolving nature or understanding meaning in both – link to Thomas (2016)

Figure 2: Staff Focus Group

	CODE 13	MAKING MEANING MULTIMODALLY - ENVIRONMENT - DEFINING THE REVIEW EVENT AND HIGHLIGHTING DIFFERENT TYPES - ENVIRONMENT OF THE CRIT VERSUS DESKTOP CRIT	Multimodality - multimodal meaning making environment in the study - the crit	impact of environment/design context on what modes are used - meaning-making using multimodal modes in range of different precedent study contexts - review (formal, informal) - desktop crit- chatting with peers, working with self - active nature of orchestrated ensemble	ENVIRONMENT AND NATURE OF CRIT - FORMAL, SEMI FORMAL AND AROUND THE BOARD CRITS - ASPS BEHAVE DIFFERENTLY IN THE REVIEW SITUATION NOT AS RELAXED, DEFENSIVE. This relates to the fact that my colleague feels that ASPs behave differently in the two scenarios - more relaxed during the desktop critique whereas the review process is more formal even in the informal setting - talking in front of all your peers tutors - more 'prepared' as opposed to the desktop where the tutors come to your board and discuss where you are at with respect to the task in hand - private nature versus public nature of the two different review situations.
	CODE 14	MULTIMODALITY QUESTION - CONTESTING MEANING MAKING AS KNOWLEDGE PRODUCTION	Multimodality - operating multimodally	contested nature of knowledge production - architectural knowledge - different kinds link to cross - different values put on creativity knowledge versus research knowledge - issue is the ability of the student to synthesise learning from research creatively in the designing process - abductive as well as inductive and deductive process - steered away from looking at this element because one I am not a phycologist and two not the appropriate starting point?	I am working off the assumption that we operate multimodally in an architectural education setting even though it may not have been conceptualised like that previously - need to set this out in my writing also - FROM A MULTIMODAL PERSPECTIVE DIFFERENCE OF VIEWPOINT OF KNOWLEDGE PRODUCTION IN AN ARCHITECTURAL CONTEXT - MY COLLEAGUE HERE IS ARGUING THAT THERE IS A DIFFERENCE BETWEEN COMMUNICATING AND MAKING KNOWLEDGE WHICH I DO NOT ACCEPT BECAUSE I AM ADOPTING THE SOCIAL SEMIOTIC MULTIMODAL THEORY OF COMMUNICATION IN WHICH THE TWO ARE INEXTRICABLY LINKED (KRESS, 2010)- This is important output from focus group discussion - also contesting the idea that the meaning made during the precedent study task is of the same value as the knowledge produced during the 'designing' - need to relate this to Nigel Cross's (1999; 1982) writing about where architectural knowledge can be found - KEY!!
	CODE 15	MEANING-MAKING WHAT I AM DOING	The research project - what I am doing	Mapping study to explore the roles and relationships of the multimodal modes in architectural setting - nature of the study is explanatory/mapping/thick description - not measuring anything. Trying to get at the dynamic nature of the meaning making	Explaining what the research is about - examining the ASPs meaning-making using multimodal resources as an orchestrated ensemble for the initial precedent study review event - about what they 'do' during the event to make meaning architecturally
	CODE 16	IDENTIFYING THE ACTIVE NATURE OF USING /MECHANISMS ASSOCIATED WITH USING THE MULTIMODAL MEANING-MAKING ORCHESTRATED ENSEMBLE DURING THE OBSERVATION EVENT	Multimodality - active and dynamic nature of meaning making during the observed event	important here though to note - have to go through the translating, transducting process which involves making their own visual media and overlaying analysis - in order to 'perform' their orchestrated ensemble at the right level - the dynamic interplay is dependent on this	CLAIM HERE THAT KNOWLEDGE IS BEING MADE DURING THE COMMUNICATIVE EVENT I am claiming that knowledge is produced during the process of the ASPs 'performing' their orchestrated ensemble during the review event - that is engaging actively with the knowledge from the outset in terms of researching online - translating and transducting to understand - reconstructing their message as physical artefact to use as part of their multimodal orchestrated ensemble during the review event - the interaction with tutors and then the reflective process the interviews offered on that process
	CODE 17	SHAPING IMPACT OF VALUES AND BELIEFS ON LEARNING BEHAVIOUR FROM MULTIMODAL PERSPECTIVE - LINKED TO HOW QUESTIONNAIRE COMPOSED	The research project - impact of habituated expectations, values on research, precedent study	Habituated expectations - meaning schemes, meaning perspectives, conceptual metaphors - link to Mezirow (1991); Lakoff and Johnson (1980)	DIFFERENT ASPECTS TO QUESTIONNAIRE - I DID NOT ADAPT THIS PIECE OF FEEDBACK - NEED TO SAY WHY - LACK OF UNDERSTANDING ABOUT WHAT I WAS ABOUT. ALSO, LINKED TO NEXT PARAGRAPH - SIMILAR CHARACTERISTICS OF CRIT FOR EVERYBODY NEED TO SET THESE OUT -5 PEAKING IN FRONT OF PEOPLE, INTERACTING WITH A TUTOR, DEFENDING THEIR KNOWLEDGE TO THEIR PEERS AS WELL. POINT BEING MADE THAT THE PERSONAL STUFF IS ONLY IMPORTANT TO ME - DON'T AGREE WITH THIS POINT OUR VALUES AFFECT HOW WE BEHAVE - LINK TO LITERATURE - Need to speak about the limits of the study in terms of time etc. - decision to use questionnaire as designed - minimise the number of jobs and times the ASPs have to actively do something for the research process - limited to three things to minimise disruption to their normal daily working routine...
	CODE 18	CONSTRUCTING POSITION - CONSTRUCTIVIST/CONSTRUCTIONIST	The research project - my constructivist position	The researcher - constructivist position naturalistic approach and insider in research context	During the focus group discussion, I had to try and make it clear that this is who I am and this is the position I am adopting and that I understand other people may not adopt that position - and this influences all aspects of the research including the outcomes
	CODE 19	DIFFERENT MODES IN DIFFERENT KINDS OF ORCHESTRATED ENSEMBLES IN DIFFERENT DIALOGUE SCENARIOS TO DO WITH PRECEDENTS IN THE DESIGNING PROCESS	Multimodality - role of modes in different review environments/context - functional specialisms	impact of environment/design context on what modes are used - meaning-making using multimodal modes in range of different precedent study contexts - review (formal, informal) - desktop crit- chatting with peers, working with self - active nature of orchestrated ensemble	it is really important that I set this out in the scoping part of the introduction - also linked to code 13 - different kinds of environment for dialogue about precedents and here making point that use different collections of modes in those different scenarios (I would think that is a normal part of what happens daily anyway - however there is the issue of socialisation/mimicry etc to consider here - what the students perceive to be acceptable
	CODE 20	INDIVIDUALISING USE OF MULTIMODAL RESOURCES - but surely, we have expectations and we are socialising them into a way of operating - process taught and process led...	Multimodality - learning to and using multimodal resources	Multimodality lens offers the space and distance to look at the architectural meaning making holistically - what do we need to incorporate into our teaching and learning practices to make architectural meaning multimodally that embodies higher order learning - visual and mental	Again, this is something I need to discuss link to multimodality literature. We teach them how to use different modes in different modules to do with representation and communication - arch rep - manual drawing, digital - REVIT, AutoCAD Revit SKETCH-UP, PHOTOSHOP etc. - taught as skills mainly - not much theoretical content about the why and up to now not really any explicit training in the connections between all of these as multimodal resources at their disposal in a whole range of contexts - part of the reason for doing this study so I could talk about this in my rationale as well - deliberate instead of intuitive, mimicry, socialised behaviour....
	CODE 21	CONSTRUCTING ARCHITECTURAL MEANING MULTIMODALLY constructing meaning /knowledge multimodally in architectural setting	Multimodality - differing perspectives on the architectural meaning making process	impact of individual - personal choice of modes in meaning - making - issue of socialisation into community of practice (CoP)- Kramler and Thomson 2014	This is all about the 'how' of constructing meaning architecturally in range of related scenarios as perceived by my colleagues - some differences of stance here - (functional specialism of modes/ visual media - literacy)
	CODE 22	INTEREST - WHAT GRABS THEIR ATTENTION - WHAT GRABS OUR ATTENTION AND WHY? -interest - what grabs the ASPs interest as they set about the initial precedent study task	Multimodality - interest - link to social semiotic strand	Key social semiotic meaning making principle	This is one of the key components of multimodality theory and or social semiotic communication theory as a starting point for the meaning making process link to Kress (2010); Bezemer and Kress (2016); Jewitt (2009)
	CODE 23	LEARNING QUALITY TYPES -	Learning and transformation- contested nature of knowledge production - different kinds of learning valued differently	contested nature of knowledge production - architectural knowledge - different kinds link to cross - different values put on creativity knowledge versus research knowledge - issue is the ability of the student to synthesise learning from research creatively in the designing process - abductive as well as inductive and deductive process - steered away from looking at this element because one I am not a phycologist and two not the appropriate starting point?	Surface versus deep design learning - quality of the meaning making relative to designing process - fact that going through the mechanics of deconstructing precedents identifying architectural thinking, strategy and mechanisms does not guarantee findings will be used appropriately in designing process is what my colleagues are putting forward and something we witness - but how true is this is it about surface versus deep learning are they making the right connections can they see across the designing process? - different perception of what meaning-making is and involves and different perceptions of what is valuable in terms of meaning-making in architectural context - surely deconstructing the precedents helps the student identify links between thinking conceptual approach, identify architectural strategy linked to that and the architectural mechanisms used to realise those strategies??
	CODE 24	REFLECTING, REVIEWING AND REFINING AFTER REVIEWS - REFLECTIVE CONVERSATION WITH SELF AND OTHERS AFTER REVIEW EVENT	Multimodality - learning - critical reflection	reflective dialogue after the event between ASPs and myself - part of the constructing of meaning process multimodally - feeds into and underpins what emerges from observation analysis	This code has to do with reflecting, reviewing and refining ones thinking and behaviour as part of the meaning-making process - spoke to the ASPs about this in interviews

Figure 3: Staff Focus Group

STAFF FOCUS GROUP DISCUSSION							
General notes		<p>- I audio recorded the focus group discussion which took place in Library meeting room (as did all the ASPs interviews) - This space has two solid blank walls long side of the space and two glass walls across the width of the space - with a large table in the centre and chairs around it, with electrical outlets mounted in the centre of the table for laptops etc. There is an overhead projector in the space - The room has to be booked through the college website which is what I did. The space can be booked for a maximum of two hours on any given day.</p> <p>This audio recording was the most difficult for me to transcribe because we were seated around the table and the device did not capture all the talk at the same level so those who were seated behind the microphone are harder to hear - my deafness did not help. With the benefit of hindsight it would have been much easier for me had I used a video device (with built in audio) as well as the audio device as I found being able to move between both devices for the observation transcription process really helpful when I could not hear something on one I checked on the other - and in most cases when I could see the speaker's lips (I lip read instinctively) I was able to discern what was being said. Also, it helped to cross check that I was recording what was being said accurately. I did not video the interviews either - audio - hearing not so much of a problem here because just myself and the asp being interviewed. Again, however with the benefit of hindsight next time I would video as well as audio record - the interviewing process was multimodal in nature - ASPs brought their review artefacts with them - these were a fundamental part of the dialogue process that took place between us during the interviews</p>					
Question for the focus group discussion		Do you think that those three tools (all the focus group participants sent a copy of the information sheet and proposed research tools prior to our meeting) are going to get the data that I need to answer my questions in relation to how they are constructing architectural meaning using multimodal communication resources?					
CODES	LABEL	NOTES	ANALYTIC MEMO		QUOTATIONS - chunks of dialogue to get at key ideas and emerging themes		
CODE 1	SEQUENCING PROPOSED RESEARCH TOOLS	The research project - tools - process	Administering research tools - questionnaire, observation of review event, and semi-structured interviews - this discussion lead to a revision of the sequencing of the research tools so that I minimised influencing the ASPs	<p>RM: And then, once they agree to participate, SP2, then, the next step is the questionnaire and at the questionnaire, then they'll get that document. And then the next process is the observation and during that process they will receive, what I have here for the actual observation [turns over pages] that's - that's, something that'll be filled in after the event. I just want to show you what the matrix looks like to see if you have anything you think should be in there that isn't in there.</p> <p>SP2: And do you have to give them the questionnaire before you observe them?</p> <p>RM: I think I do. The purpose - to explain the why they are in that sequence. The questionnaire is intended to, kind of, look at how they approach the review process. I am talking about the metaphors that they use. So, for example, if they see the review process as something that is kind of confrontational or that they have to perform and that they are being criticised, versus it being an opportunity to have a conversation with somebody, that's - that's where I am coming from. That's what I mean by looking at their shaping metaphors, the way they approach that process. That's why I need to gather that information before -</p> <p>SP2: <I read the questionnaire first.></p> <p>RM: Okay.</p> <p>SP2: And the first thing I wrote down is: "why is it so personal?" Because three of the largest questions ask about the values of life.</p> <p>RM: Yes?</p> <p>SP2: So, it's what kind of person are you? What do you think about other people I guess?</p> <p>RM: Exceptionally personal material.</p> <p>SP2: Okay.</p> <p>Now, then when I read the information sheet I realised why it had to be there, because actually what you are talking about, well two in particular, are the metaphors that we incorporate into our habitual thinking and doing actions and the social semiotics, which I had to look up. So, to get any handle on two of your key points, you do need to know what sort of people they are, what background they have come from, and what metaphors would be in their daily existence. And now, if that's not leading I don't know what is, in terms of preparing them to present to you in a completely unguarded way. Okay, if you want them - obviously, this is down to both ethical technique and research methodology - but from the point of view of seeing how they do what they do in the most unguarded fashion I really think that the least amount of information it is ethical to give them beforehand and definitely that the questionnaire - is there any way that can come after it [the observation event]?</p> <p>RM: Okay.</p> <p>SP2: I mean if you have to write - there is potentially four pages they have to write there [in the questionnaire] about what sort of people they are. And even the two examples that you give is how people should behave towards one another and what's the other one?</p> <p>SP2: Again, very personal. So, if I read that I would be thinking, I am being weighed up on what sort of person I am here, now that's one of the parts I'm being evaluated on. And what you need is just to get them completely unguarded, whilst you are doing filming or whatever else, trying to direct. Does that make sense in terms of my remarks?</p> <p>SP3: So, it's a mixture. Doesn't matter if they kind of thought about it and planned it beforehand, that does n't matter, you just want to find out.</p> <p>SP2: Except, if they thought about it as a response to what they have read that would be the wrong way round [as a result of filling out the questionnaire first]</p>	<p>line 78-84</p> <p>line 347</p> <p>line 349 - 357</p> <p>line 359</p> <p>line 361</p> <p>line 363-364</p> <p>line 366</p> <p>line 368-369</p> <p>line 371</p> <p>line 373-386</p> <p>line 388</p> <p>line 390-395</p> <p>line 399-401</p> <p>line 445-446</p> <p>line 448-450</p>		
<p>Legend for transcription symbols Transcription symbols taken from and based on:</p> <p>Transcription guidelines FAAV. Retrieved 30th June 2016 from http://lave.ling.upenn.edu/downloads/Transcription_guidelines_FAAV.pdf</p> <p>and</p> <p>VOICE transcription conventions. Retrieved 30th June 2016 from https://www.univie.ac.at/voice/documents/VOICE_mark-up_conventions_v2-1.pdf</p> <ul style="list-style-type: none"> • Quotation marks for direct speech or thoughts within narrative "..." • Disjointed, restarts or repetitious text = - - • [explanation added by researcher] • {anonymised names and or locations, as well as corrections for readability} • Comma [,] for pauses and punctuation • Double brackets for inaudible segments or guessed text ((inaudible/guessed)) • <interruptions of one person's speech by another - starting to and talking before previous speaker has finished> • Question mark for rising intonation =? • <Laughter and other sounds> • CAPITAL LETTERS for emphasised speech 							

Figure 4: Staff Focus Group

	CODE 2	PROTOCOLS - THE HOW OF OBSERVATION PROCESS	The research project - tools - observation protocols,	This discussion underpinned and was the basis for my decision to not make field notes while filming and audio recording - as it happens it would have been impossible to do both activities at once - both would have been done badly. I had a discussion with David about this - better to record as accurately as I could as I would then have a fuller record that I could refer to over and over during the analysis process. Once I was into the observing process I realised my deafness had a part to play here to. I could not attend to what was happening properly if I tried to take notes also - captured on audio. This is true of the focus group discussion process also - I did not prepare a script as such because I had one question that needed answering - face validity. I responded to individual questions about the research and the research process as the discussion developed	RM:	But at the event I will be filming them. I don't take part. I don't say anything and once - because when I spoke with my supervisor he told me not to take any notes. He said, "film it properly, make sure you get all of their gestures and what they say and how people interact with them and how people interact with their artefacts and make your transcripts from that"	line 84-89
	CODE 3	DELIMITING - SCOPING, BOUNDARIES AND LIMITS PRECEDENTS STUDY	The research project and case	Question about how scope, boundaries limitations - precedent studies. Just looking at the initial precedent study review event - part of a much larger iterative process that flows through the designing process - link this to literature - My colleagues seeking clarity around what I am exploring and what it means in terms of architectural meaning-making	SP1: RM: SP1: RM: SP1:	Neither did I. Yeah, so, yeah. in terms of you - when you are designing your brief are you going to set out, you know, what you're - what you are looking for - achievement in third year in designs studio? Oh, absolutely! In precedent in design studio, and this is the specifics - shades of the - well are you defining that? Yes. That's all part of my methodology chapter. That's all part of your methodology in terms of - so, okay	line 103-110 line 103-105 line 107 line 109-110 line 112 line 114
	CODE 4	ITERATING, REPEATING, REITERATING PROCESS - ITERATIVE NATURE OF PRECEDENT STUDY IN ARCHITECTURAL DESIGNING -	Architectural precedents - The nature of precedent study in an architectural context	This is an important issue I need to make clear the iterative nature of precedent study in designing - I chose to take a snapshot of something specific, concrete and tangible - one kind of review event - semi formal review for the initial precedent study task - semi formal - to class peers and tutors not informal/desktop - to identify roles/relationships/map the ways that the ASPs used the 'artefacts' they produced during the task as part of an orchestrated ensemble to communicate multimodally and make meaning as they 'performed' their orchestrated ensemble - talk, gesture, movement, visual image, analytical sketch..... iteration is the act of repeating a process, either to generate an unbounded sequence of outcomes, or with the aim of approaching a desired goal, target or result	SP1: SP1: RM: SP1: SP3: RM: SP1: RM: SP1:	Okay. And just in terms of the precedent study part. Do you - you know, in terms of let's say DST1 and DST2 - in terms of setting that, you know, up - you're - are you - do you define that as a particular, and an initial precedent study, because - as their - sort of - lets' say exploration of their designs become more finite they will be exploring more and more different precedents that would be - that would give them clearer information. You know the precedent study will go on through the process so - So, this is the initial precedent study. You need to define that because - Again, that is something I have to discuss in the writing. I have to discuss that, and I have to make it very clear that: first of all in the first scenario you painted where you are sitting around the board and you are having a different kind of conversation with them, the crit is a completely different scenario; and secondly I am choosing to focus on precedent study because they play such an important part - the reason why is I am teaching them about reading precedents and how to go about it, and it is something that is very fundamental to the way we go about informing our designs. Yeah but it [studying and using findings from precedents] goes right through the whole design process and some of the other multimodal communicative aspects would only be used at a later stage, like models, not necessarily at that first stage. So, you are looking specifically at their initial grasp of their precedents? I am looking at their actual use of the resources they do use to construct architectural meaning. I know you sort of said to them at another stage "I want you to choose similar precedents that have used the same structural method that you are looking at" and looking at models to deconstruct that and looking at that as a precedent and applying it. I am just saying that precedents are used for a specific thing, and how precedents are used throughout the design process, and how all of that is cyclic and comes together in how they design - so that is what I meant in the beginning. So, in your definition of what you are doing - in defining the precedent and precedent part of this task, that it is very much - it's the definition of what that is in terms of the overall context of how precedents are used through the design process. Because they may not get into using models in that particular part of the precedents analysis, but would maybe later on in their analysis of it, and what they would learn and apply to their own thinking and their meaning. Definitely! If you define it very clearly you can see the limits of what this precedent [initial precedent study task] is.	line 130-137 line 141 line 618-625 line 627-630 line 632 line 634-635 line 681-693 line 695 line 697-698
	CODE 5	FUNCTIONING ROLES - ROLE OF BRIEF AS CONSTRUCTED BY DESIGN STUDIO TUTORS	Architectural precedents - The role of the brief and its impact on the initial precedent study	This needs to be discussed in my writing - part of the contextual information about what is expected at the start of the data analysis chapter - as the ASPs are responding to the task for initial precedent study - as set out in this brief which is part of a much larger brief - guides the ASPs designing process - series of briefs	SP1:	Okay. And just in terms of the precedent study part. Do you - you know, in terms of let's say DST1 and DST2 - in terms of setting that, you know, up - you're - are you - do you define that as a particular, and an initial precedent study, because - as their - sort of - lets' say exploration of their designs become more finite they will be exploring more and more different precedents that would be - that would give them clearer information. You so -	line 130-137
code 6, 7, 9, 10 and 11 connected - may make sense to pull all	CODE 6	REASONING - RATIONALE FOR 'SNAPSHOT' - OBSERVING THE INITIAL PRECEDENT STUDY REVIEW MAPPING STUDY TO EXPLORE ROLES	The research project - rationale for snapshot - observing the review	Rather than carrying out an extended observation of the ASPs precedent studies that flowed through the whole project. Need to set out why I could not do this - nature of study - mapping meaning-making in one concrete event - also teaching full time so not able to follow them through studio over the full course of the project - also time constraints - also the intrusive nature of following them over the course of the whole project - the ramifications - organisational issues - things changed even for this one	RM: SP1: RM:	And its' very important to me. I am - I'm actually constructing an argument around why I chose the third years rather than first years, or second years, or fourth years. Okay, okay, right, so that is already - so that just comes into this anyway. And just to kind a give you the - I suppose the synopsis. The synopsis of that. I think they are mature enough from an architectural perspective to talk to them about their meaning making. I don't think first year and second year is ready, and I didn't really want to go near the fourth years because they have too much to do. So, that, really - that's - that it	line 116-118 line 120 line 122-128

Figure 5: Staff Focus Group

under one code to do with the 'case'		RELATIONSHIPS – NATURE OF STUDY		event – had to reschedule observation – knock on effect on questionnaire and interviews – and changing focus in brief the initial precedent study was subsumed into larger task rather than being a stand-alone task as it often is. This was because the students were looking at policy to do with affordable social housing - part of reason for this choice had to do with fact in this scenario all students gathered together run through critique easier to manage than around the desktop when arguably they would have been talking about a number of things at the same time Mapping study to explore the roles and relationships of the multimodal modes in architectural setting - nature of the study is explanatory/mapping/thick description - not measuring anything	RM: SP1: RM: SP4: RM:	would interrupt what they are doing in their thesis project. So, that was my, kind of - the main gist of my argument <I will be because really- - again I don't have enough time you see. If I was doing this as a real piece of research- - this is a piece of real research. If I was doing it- - if I could do it over an extended period of time it would be much- - it would be very helpful to be able to keep following them through their precedent study work that happens throughout the whole project. So, the way I am looking at it, I am just focussing on this one event. It is just one small snapshot of what happens in the project to do with that. > But then that is why the questionnaire becomes a very important part of the ethical review process. Because a lot of students, no matter what, actually standing up in front of everybody is hard and it's how it relates back to that- - would be a different set of results, in terms of how they use their multimodal resources. Sometimes in preparing for that type of presentation they forget something, they don't bring their models, it's a different social situation. So, that is where your results might be different. Just a quick question, did you select the precedent part of the project? Yes. Why? Why did I choose it? Because it is concrete and tangible I suppose. Because we have very specific things we want to find from it [the precedent study task]. It's easier for them to externalise their findings. They create a series of artefacts actually to communicate their findings.	line 143-149 line 572-579 line 581 line 583 line 585-588
	CODE 7	INFORMING- RECEIVING - INFORMED CONSENT/ETHICAL CONSIDERATION/EFFECTS - INFLUENCING THE RESEARCH SITE	The research project - ethical considerations and informed consent	This issue has to do with letting the ASPs know what the study is about, and what their participation entails so that they can make an informed decision about participating. Also it probably has to do with the effects of informing them in terms of their considered (reflective/critical response) – However points to the dilemma inherent in this – too much information at the wrong time and the perception from my colleagues is this could possibly lead to the ASPs focusing more on responding to the research rather than addressing the brief task – ASPs might have a perception being judged on their values for instance (questionnaire/information sheet) – so feeling was the least amount of information possible at the beginning before the observation - not to compromise the review event (what was being observed) so that it runs as normally as possible and students are focusing on the brief task – while on the other hand informing them enough about the research and their role in it so that they can respond reflectively and critically in the questionnaire and interview processes associated with the observed review event.	SP1: RM: SP1: SP3: RM: SP3:	So, yeah. So, then you'll be looking at this in a sort of - in a - putting- - putting together a synopsis of this [in the information sheet]. Yeah. Really, I just wanted them to know- - look this is what I am doing. This is where I am coming from and this is what your involvement involves and these are the benefits- - about being- - to being involved. Yeah. Okay... Hmm... That's- - that's really what it has to say [the information sheet]. Hmm. And the other thing is, it makes it easier for them if they know what- - if they can be a little bit thoughtful. I mean there is a difference about not being natural in yourself, and having a chance to actually think about what you want to say about a thing, about your experiences, you know, and you, kind of, want them to not be just telling you whatever comes into their heads unthoughtfully. You do want their kind of experience of it, in a natural way, if- - see what I mean?	line 177 -180 line 180-182 line 184 line 186 line 188 line 328-334
	CODE 8	USING LANGUAGE ASPS CAN UNDERSTAND (TERMINOLOGY/MIMIC THEIR LANGUAGE)	Multimodality – translation process – using language participants can understand	This topic is to do with using words the ASPs can understand when I am speaking to them about the research – translating the multimodality language into language terms they are accustomed to – suggestions about active listening – feeding back to the ASPs in the language the ASPs use themselves during our dialogue. Did that happen in the meeting with them, in the interviews – need to look for this?	SP1: SP3: SP3: RM: SP3: RM: SP3: RM:	To identify that in their context it just- - it might give it clarity in terms of, you know- - of what you're expecting from them, let's say. So, you have defined multimodal communications. You've said what it is. But some of the other terminology may be either- - whether it's made simple within the text that they get, or that it's just, a glossary meaning at the end. I think the glossary would be fine. Yeah. I think also that there is a difference between what they need to understand about it, and what you say your supervisor needs to understand about what you are doing and if you- - It is a quite a short thing that you are doing. You know how I went down to that workshop on phenomenology- - on doing. And part of what they did- - we had this training session on how to do interviews and that. And I don't know how good I was at it afterwards, you know, you know. But what they were trying to get us to do was to use the language of the people that we're talking to. So, in the situation, as far as is possible, rather than academic language- - so, so, so that- - just basically- - so it is easy for them to get that they are not being self-conscious in the way they are responding to- - and they're not thinking I am going to have to use big words, or I am going to have to do this, or I am going to have to do that, but that they just respond. And one of the things, I don't know if it is relevant to this, was that in the interview process- - that they said would be helpful, was to kind of- - not mimic, but if people use a phrase to use it back and say "what do you mean by it"? So, that you know you are using exactly the language that they use with you. Now when you are writing a thing that is a difficult thing, but I suppose you, kind of, know the third years. Well I have- - I have a script. Yeah. For the interview process. It is just to guide. It is not prescriptive. Yeah. And I have reminders in there to probe and to reflect back. So, I mean again what you are saying is absolutely right. One of the pieces of feedback my supervisor gave me was "would they understand the words that you're using"? "The way you are phrasing the	line 204-208 line 210-211 line 264-279 line 281 line 283 line 285 line 287 line 289-294

Figure 6: Staff Focus Group

						questions"? And so, I suppose that's - really just in terms of the interviews script, that's something that's very important.	
	CODE 9	RESEARCHER INFLUENCING THE RESEARCH SITE – CONDITIONS, PARTICIPANTS	The research project – Insider role	Giving the ASPs the minimum amount of information possible so as not to influence what happens during the review event – or influence students in how they go about the initial precedent study task but at same time enough to make informed decision/give consent – make sure they focus on the task not on responding to me in the research study. I reacted and took on board this comment – rearranged the sequencing of the tools – have to amend the method chapter to reflect this – understood the rightness of what was being said No matter what I do to minimise it I imagine the students approach and performance during the review will be somewhat affected by the fact that I am observing using a video and audio device	SP3: ...And if you are wanting them to kind of get a good grasp and be natural in their response to it and be comfortable with it as a thing it might help to - when you go back to edit it to - to actually [the information sheet] look at - sort of think - "what do they really need to know about this in order to understand it clearly"? So, that you don't put too much information in their brain about it and they do actually get a grasp of the essentials of what your relationship with them is in it, you know, so. RM: Okay. Okay. Yeah that's fair comment. I think what you're raising actually is something very important. I don't really want what I tell them to affect what happens during it [the observation of the precedent study review event]. SP1: Maybe they get from the research a true study of where they are. A reflective study for you in terms of your analysis. Maybe then the minimum information they get, in terms of what your project is about, probably would work better from a research perspective; because then they are not feeling they are preparing for this task [the observation, questionnaire and interview] rather than prepare for their - just the precedent review part of the review task. Because if they are preparing for this [the research involvement part], then this will become dominant in terms of them just reviewing their precedent part. RM: Yeah. What I hear underneath what you are saying is how daunting that is [being involved in the research study]. SP1: Yes, yes. SP2: And what you need is just to get them completely unguarded, whilst you are doing filming or whatever else, trying to direct. Does that make sense in terms of my remarks? SP3: Yeah well, another thing which might help is - because it is probably inevitable that if they are aware that this study is going to happen that they are going to want to perform well. And they are going to put a bit more effort into the precedent study, and all of those things, and possibly will have read a bit of what you have explained to them. RM: I have to say all that SP3, but that's absolutely correct. That will have to be in there.	line 213-220 line 222-225 line 302-310 line 312-313 line 315 line 399-401 line 505-509 line 511-512	
	CODE 10	NATURALISTIC APPROACH TO THE RESEARCH STUDY – LOOKING AT SOMETHING SPECIFIC AND CONCRETE	The research project – approach to study	Exploring something as it happens live in a specific architectural education context that I am a part of as an insider – trying to let the event run as normally as possible given that I am there recording with a video and audio device and I would not normally be present in this informal review scenario because I do not teach in third year studio - Also this approach is linked to my constructivist position - that we make meaning as individuals and collectively in all our social situations - my situation is an arch ed learning context -specific domain applying multimodality thinking to it	RM: Hmm. I want them to behave as they would normally behave... if that's possible, in the actual precedent study review. Because, I want to really - I want to see what they actually do. SP3: I don't want them to start trying to do things that have something to do with what I told them. I just want them - remember I am teaching them about precedent study in theory, and I am teaching them about constructing architectural meaning in theory. RM: Hmm.	line 229-231 line 233 line 235 - 238	
	CODE 11	INSIDER RESEARCHER RESEARCHING – WORKING ON THE PROGRAMME LONG NUMBER OF YEARS	The research project – Insider influence	This means I have an established relationship as a design tutor and module lecturer already established with the ASPs. There are pluses and minuses associated with this from a research/researcher perspective that I need to explicate in my writing – trust, might tell me what they think I want to hear – confidentiality came up as issue in the information meeting – would I be anonymising comments if they were about design staff... My response to this was "yes all commentary from all involved will be anonymised"	SP3: So, that you know you are using exactly the language that they use with you. Now when you are writing a thing that is a difficult thing, but I suppose you, kind of, know the third years.	line 277-279	
	CODE 12	DIACHRONIC NATURE OF THE RESEARCH STUDY ITSELF, THE MEANING- MAKING IN THIS CONTEXT ETC. UNFOLDS OVER TIME – PREPARATION AND THE PROCESS OF THE OBSERVATION, QUESTIONNAIRE AND INTERVIEWS	The Research project – links between diachronic nature of the study – and precedent study task, designing	I need to discuss the diachronic nature of the research process and the designing process they are interconnected and impact – evolving nature or understanding meaning in both	RM: Remember this is going to unfold over time. They are going to be coming back in January and I will be asking them to come and meet me and I will be giving them the information sheet and asking them to sign the consent form. But it might be two or three weeks then before - or a week or so maybe ten days or so before I do the questionnaire. And then it might be another ten days before the precedent study review, and they will be working away in studio. SP3: Yeah. And then they will have the chance then to get comfortable about what they want to say to you.	line 336-342 line 344-345	
	CODE 13	MAKING MEANING MULTIMODALLY - ENVIRONMENT - DEFINING THE REVIEW EVENT AND HIGHLIGHTING DIFFERENT TYPES -ENVIRONMENT OF THE CRIT VERSUS DESKTOP CRIT	Multimodality - multimodal meaning making environment in the study – the crit	ENVIRONMENT AND NATURE OF CRIT – FORMAL, SEMI FORMAL AND AROUND THE BOARD CRITS – ASPS BEHAVE DIFFERENTLY IN THE REVIEW SITUATION NOT AS RELAXED, DEFENSIVE. This relates to the fact that my colleague feels that ASPs behave differently in the two scenarios – more relaxed during the desktop critique whereas the review process is more formal even in the informal setting – talking in-front of all your peers tutors – more 'prepared' as opposed to the desktop where the tutors come to your board and discuss where you are at with respect to the task in hand – private nature versus public nature of the two different review situations.	SP4: No, it just needs to have another dimension to that you know. You mention there about the crit format like, you don't want - you don't want that to be most of the information that you get. They go into the crits with a certain attitude, and you know - and there is a defensiveness that is going to be there because that is in the nature of crits, you know, even the way they are run now. So, they're presenting their work to get a response, you know, it's not so much - I know discretion is the aim, but it's not always like that. And some of the - you can see why - you are looking at different people from different backgrounds. It's just that - I just want to ask you about this, what are you trying to find from this? Are you accepting from the literature that multimodal approaches are used in architecture? RM: Absolutely! That's my stance. Yeah.	line 414-424 line 426	

Figure 7: Staff Focus Group

					<p>SP1: But you could have a desk tutorial with, let's say the student, where they would be using multimodal communication skills that would be very different in terms of how that would happen than the crit. See that's my question ((inaudible segment)) about the questionnaires. In that case [the desktop tutorial] they would be more natural in expressing themselves, taking up a model and explaining and discussing.</p> <p>SP4: Is it not that it is just a different context with very different results?</p> <p>SP1: Well it is more natural. For the fact that people in a one to one are sort of more relaxed. See that's the whole thing about crits. Where, let's say, students don't perform at their best at crits because they are in front of their peers, and in a review process, and they already are in a probing situation. ((inaudible segment)) and I am just saying, see - that would get different results than let's say if they were doing their multimodal to let's say, one person sitting at a desk, like a tutor.</p> <p>RM: Yes. I don't disagree with you.</p> <p>SP1: So?</p> <p>RM: I think my problem is time. I could do what you are saying, I could have gone and just looked at ten tutor to student interactions and I could have observed that, but I chose to look at the review event.</p> <p>SP1: But then that is why the questionnaire becomes a very important part of the ethical review process. Because a lot of students, no matter what, actually standing up in front of everybody is hard and it's how it relates back to that - would be a different set of results, in terms of how they use their multimodal resources. Sometimes in preparing for that type of presentation they forget something, they don't bring their models, it's a different social situation. So, that is where your results might be different. Just a quick question, did you select the precedent part of the project?</p> <p>RM: Yes.</p> <p>SP1: Why?</p> <p>RM: Why did I choose it? Because it is concrete and tangible I suppose. Because we have very specific things we want to find from it [the precedent study task]. It's easier for them to externalise their findings. They create a series of artefacts actually to communicate their findings.</p> <p>SP1: The only thing about that I would say from the precedents - I know in this project you might sort of look at it differently. A lot of the multimodal communication methods that you would use in, let's say, the early sketch design that would be utilised in the precedents study - they often don't make models of their precedents, it's something they don't do at that stage, it's something they do in the next stage. They are used to presenting them in a certain way, like analytical sketching and a diagram. But there are certain ones - now I am not saying that's the right thing or not maybe that brings up the point that they should be at that stage. But I know in a lot of precedent studies they are not really using all of the communication methods that we would talk about at that stage of the project, the very initial stage of the precedent. Possibly at the precedent stage when they are more decided in terms of their specific area of function and there would be specific precedents informing that, then they make their models. But the initial precedent study may not use all of the multimodal resources. While at the next stage they would be using those. And that's the only question I was thinking about in terms of the precedents. There is going to be some of them missing [multimodal resources] from your data that they would be using at the next stage.</p> <p>SP3: I think it is also because at that stage it is analytical rather - it's not synthesising, it's a different character, you are deconstructing rather than constructing, yeah.</p> <p>SP1: And when you are deconstructing, sometimes you don't use all of the communication methods. Like do we ask them to make models of their precedents to apply to their sketch design?</p> <p>RM: Again, that is something I have to discuss in the writing. I have to discuss that, and I have to make it very clear that: first of all in the first scenario you painted where you are sitting around the board and you are having a different kind of conversation with them, the crit is a completely different scenario; and secondly I am choosing to focus on precedent study because they play such an important part - the reason why is I am teaching them about reading precedents and how to go about it, and it is something that is very fundamental to the way we go about informing our designs.</p> <p>SP1: Yeah but it [studying and using findings from precedents] goes right through the whole design process and some of the other multimodal communicative aspects would only be used at a later stage, like models, not necessarily at that first stage.</p> <p>SP3: So, you are looking specifically at their initial grasp of their precedents?</p> <p>RM: I am looking at their actual use of the resources they do use to construct architectural meaning.</p>	<p>line 547-552</p> <p>line 554</p> <p>line 556-562</p> <p>line 564</p> <p>line 566</p> <p>line 568-570</p> <p>line 572-579</p> <p>line 581</p> <p>line 583</p> <p>line 585-588</p> <p>line 590-608</p> <p>line 610-612</p> <p>line 614-616</p> <p>line 618-625</p> <p>line 627-630</p> <p>line 632</p> <p>line 634-635</p>
	CODE 14	MULTIMODALITY QUESTION - CONTESTING MEANING MAKING AS KNOWLEDGE PRODUCTION	Multimodality – operating multimodally	I am working off the assumption that we operate multimodally in an architectural education setting even though it may not have been conceptualised like that previously – need to set this out in my writing also - FROM A MULTIMODAL PERSPECTIVE DIFFERENCE OF VIEWPOINT OF KNOWLEDGE PRODUCTION IN AN ARCHITECTURAL CONTEXT – MY COLLEAGUE HERE IS ARGUING THAT THERE IS A DIFFERENCE BETWEEN COMMUNICATING AND MAKING KNOWLEDGE WHICH I DO NOT ACCEPT	<p>SP4: Is it how they construct meaning or how they communicate that meaning?</p> <p>RM: Well from a multimodal perspective I would say you cannot unhitch the two. That's really the whole point.</p> <p>SP4: Even in the situation of the crits, where communicating is the main criteria?</p> <p>SP1: You can unhitch them!</p> <p>RM: Well I am coming from a constructive perspective; so I am thinking that we construct meaning in all our different social contexts. And so in this social context, the review, we</p>	<p>line 528</p> <p>line 530-531</p> <p>line 533</p> <p>line 535</p> <p>line 537-541</p>

Figure 8: Staff Focus Group

				BECAUSE I AM ADOPTING THE SOCIAL SEMIOTIC MULTIMODAL THEORY OF COMMUNICATION IN WHICH THE TWO ARE INEXTRICABLY LINKED (KRESS, 2010)- This is important output from focus group discussion - also contesting the idea that the meaning made during the precedent study task is of the same value as the knowledge produced during the 'designing' - need to relate this to Nigel Cross's writing about where architectural knowledge can be found - KEY!	<p>SP4: are using multimodal resources to construct architectural meaning as a way of communicating what we have learned from the task.</p> <p>RM: Meaning for individuals or meaning generally? You know? Both!</p> <p>SP2: I still cannot connect the two halves of your research question in my head. I just can't! I really struggle to think that you can possibly identify the constitution of architectural meaning of some sort when you are talking about communication.</p> <p>RM: You are making meaning. Their [the students] understanding of what the problems are (that) they are addressing is changing in the process of using all those multimodal resources to communicate their findings in their review findings. This is kind of a hypothesis.</p> <p>SP4: As long as it is communication and not design.</p> <p>SP3: So, it is not necessarily making a final design, it is making meaning which might lead to a final design.</p> <p>RM: It is not about designing. It is about- - they are making architectural knowledge. They are developing their understanding of what they are doing architecturally in the process.</p> <p>SP1: In the context of their main design project?</p> <p>RM: Just that one project.</p> <p>SP1: it's also in the context of- - and that's where with a tutor- - as a designer they would give different information in terms of the students because some of them [the students] would be doing this already as another- - they are able to look at all these other different multiple strands. They are already thinking about their site. They are already seeing the bigger problem and they are able to communicate that. Whereas others [other students] are doing it as a purely analytical research task and they haven't made the connections yet so- - And to analyse that that is the making of the architectural meaning, that is the hard thing for you to make a comment on really because for me I think- -</p> <p>SP3: It is also difficult because some of them are going to be doing things not because they are told to, but because they are conscientious as people rather than necessarily because they are understanding what's happening. And you are going to have to sift that out of the interviews, and then how do you actually write about that? And do they see that? And how do you use those quotes? It is tricky.</p> <p>SP4: Is it more the multimodal resources that are used during the crit process? You know, it's not the design really, it's in the crit process alright in the analysis.</p> <p>RM: It is just about making architectural meaning.</p> <p>SP4: It's not in general, it's not architectural meaning. Like architecture is something- - a means to an end as well, a building. As well as talking about it.</p> <p>RM: You are interpreting architectural meaning a little bit differently than me. I think, from the perspective of this study- - I think it is just important I define it in the way I mean it and the way I am addressing it the way I mean it. I think that is what you are highlighting for me. I think it's natural that we would all have slightly different interpretations of what that means and I am immersed in it from the multimodal perspective and I might not be communicating it very well, either, at the moment.</p> <p>SP3: Or is it a particular type of multimodal, a very specific bit of architectural meaning that you are looking at?</p> <p>RM: It is just about making meaning. It is architectural because it is in an architectural context. It is that we actually make meaning through the process of communicating it.</p>	<p>line 543</p> <p>line 545</p> <p>line 1235-1238</p> <p>line 1240-1243</p> <p>line 1245</p> <p>line 1247-1248</p> <p>line 1250-1252</p> <p>line 1254</p> <p>line 1256</p> <p>line 1258-1267</p> <p>line 1269-1274</p> <p>line 1276-1278</p> <p>line 1280</p> <p>line 1282-1284</p> <p>line 1286-1292</p> <p>line 1294-1295</p> <p>line 1297-1299</p>
	CODE 15	MEANING- MAKING WHAT I AM DOING	The research project - what I am doing	Explaining what the research is about - examining the ASPs meaning-making using multimodal resources as an orchestrated ensemble for the initial precedent study review event - about what they 'do' during the event to make meaning architecturally	<p>RM: Absolutely! That's my stance. Yeahs.</p> <p>SP4: And you are looking to see what- - once they engage individually as multimodal objects or whatever- - or the interaction between them?</p> <p>RM: No, what multimodal communication theory is saying is we use multimodal resources and we construct what they call an ensemble. That ensemble is something that you orchestrate, you perform it over time. So, when I am looking at the review event, what I want to see is how- - they have produced a series of artefacts in response to the task; so, that's part of it. And then it is how they use those artefacts, as well as, talking and gestures and movement in a space, to actually make meaning. They are making meaning in that process, is really part of what I am arguing.</p> <p>SP3: Are you looking at what they are doing deliberately or what they are doing intuitively?</p> <p>RM: Just what they do!</p> <p>RM: I think in the time I have the best I can hope for, really in a way, is just to map it. It has never been mapped in this way before from this perspective. I think what you are talking about, if I wanted to do it, I would have to do another study. I would have to build on this study, because I don't have enough time, this time, to do that- - I cannot do it all. I think the first step has to be to map it, and analyse what that map might mean.</p> <p>SP1: Then you are observing it very broadly, initially, because a lot of it is- - if you want to get real true findings, you are observing it, and you are analysing your film, and what is happening. So, a lot of this is really superfluous information for the students [some of the information in the information sheet]; because that puts in a different layer of information that they would be responding to. If you are really getting true data, it's really looking at them. They have precedents. How did they do the analysis task? And</p>	<p>line 426</p> <p>line 428-429</p> <p>line 431-438</p> <p>line 440-441</p> <p>line 443</p> <p>line 1186-1191</p> <p>line 1193-1201</p>

Figure 9: Staff Focus Group

						how do they communicate that to themselves and other people through that process? And how that gets them to the next stage.	
	CODE 16	IDENTIFYING THE ACTIVE NATURE OF USING /MECHANISMS ASSOCIATED WITH USING THE MULTIMODAL MEANING-MAKING ORCHESTRATED ENSEMBLE DURING THE OBSERVATION EVENT	Multimodality - active and dynamic nature of meaning making during the observed event	CLAIM HERE THAT KNOWLEDGE IS BEING MADE DURING THE COMMUNICATIVE EVENT I am claiming that knowledge is produced during the process of the ASPs 'performing' their orchestrated ensemble during the review event - that is engaging actively with the knowledge from the outset in terms of researching online - translating and transducting to understand - reconstructing their message as physical artefact to use as part of their multimodal orchestrated ensemble during the review event - the interaction with tutors and then the reflective process the interviews offered on that process	RM: SP1:	...One of the things that really grabbed my attention is the idea that this process has performative characteristics, the actual meaning they make... And when I talk about architectural meaning you could put knowledge in there as well. The actual crit, the actual review process that we have, where they have their artefacts and they are talking to us and we give them feedback, architectural knowledge is made in that event. We're making it. And so, it is in the process of actually communicating with us and us communicating back to them- - so that's what I am after, how does that happen? It's also in the context of- - and that's where with a tutor- - as a designer they would give different information in terms of the students because some of them [the students] would be doing this already as another- - they are able to look at all these other different multiple strands. They are already thinking about their site. They are already seeing the bigger problem and they are able to communicate that. Whereas others [other students] are doing it as a purely analytical research task and they haven't made the connections yet so- - And to analyse that that is the making of the architectural meaning, that is the hard thing for you to make a comment on really because for me I think- -	line 452-460 line 1258-1267
	CODE 17	SHAPING IMPACT OF VALUES AND BELIEFS ON LEARNING BEHAVIOUR FROM MULTIMODAL PERSPECTIVE - LINKED TO HOW QUESTIONNAIRE COMPOSED	The research project - impact of habituated expectations, values on research, precedent study	DIFFERENT ASPECTS TO QUESTIONNAIRE - I DID NOT ADAPT THIS PIECE OF FEEDBACK - NEED TO SAY WHY - LACK OF UNDERSTANDING ABOUT WHAT I WAS ABOUT. ALSO, LINKED TO NEXT PARAGRAPH - SIMILAR CHARACTERISTICS OF CRIT FOR EVERYBODY NEED TO SET THESE OUT -S PEAKING IN FRONT OF PEOPLE, INTERACTING WITH A TUTOR, DEFENDING THEIR KNOWLEDGE TO THEIR PEERS AS WELL. POINT BEING MADE THAT THE PERSONAL STUFF IS ONLY IMPORTANT TO ME - DON'T AGREE WITH THIS POINT OUR VALUES AFFECT HOW WE BEHAVE - LINK TO LITERATURE - Need to speak about the limits of the study in terms of time etc. - decision to use questionnaire as designed - minimise the number of jobs and times the ASPs have to actively do something for the research process - limited to three things to minimise disruption to their normal daily working routine...	SP1: RM: SP1:	Could this questionnaire possibly- - this questionnaire could be split into two because really the whole sort of more values around themselves is- - "say something", let's say. Now I don't do professional studies anymore, but that is something that would be taught in respect of [professional body] criteria for ethical designs - "What is your individual personal view of your sort of values and how you hope to practice in terms of architecture [addressed to the students]?" That is a very- - and that goes back to a lot of those question you are asking. The other part of this is very much about how they prepare for and view the actual crit process. Yes. Now they are linked to a certain extent. But a lot of it is not linked because really the crit process for everybody will have, let's say, similar points no matter what their values are. Because they are about other things. About speaking in front of people. About having to interact with a tutor and to defend their knowledge to their peers as well. There is all of that level. That may not be linked to their values about how they would personally approach their thing. And that information I think is okay - - to do at the beginning about the review process. The personal stuff, it is interesting for you whenever you are evaluating that information and putting in another layer for you yourself looking at it.	line 462-470 line 472 line 474-483
	CODE 18	CONSTRUCTING POSITION - CONSTRUCTIVIST/CONSTRUCTIONIST	The research project - my constructivist position	During the focus group discussion, I had to try and make it clear that this is who I am and this is the position I am adopting and that I understand other people may not adopt that position - and this influences all aspects of the research including the outcomes	RM: SP1: RM: SP2: SP1: SP3: RM: SP1: RM: SP1: RM: SP1:	Well I am coming from a constructive perspective; so, I am thinking that we construct meaning in all our different social contexts. And so, in this social context, the review, we are using multimodal resources to construct architectural meaning and as a way of communicating what we have learned from the task. It's also in the context of- - and that's where with a tutor- - as a designer they would give different information in terms of the students because some of them [the students] would be doing this already as another- - they are able to look at all these other different multiple strands. They are already thinking about their site. They are already seeing the bigger problem and they are able to communicate that. Whereas others [other students] are doing it as a purely analytical research task and they haven't made the connections yet so- - And to analyse that that is the making of the architectural meaning, that is the hard thing for you to make a comment on really because for me I think- - So SP2 you are talking from a very similar perspective to me, because you are actually talking from a constructive perspective as well, because what you are actually saying is, the meaning is not real unless it is made in a social context with other people. I never really thought of that before. I am only thinking of it in terms of the research question That's not actually true though RM. Social and self? But that is my whole way of thinking. Can't you have two perspectives? I am in that perspective whenever- - you are actually designing. It is individual and it's also collective, it's both. No, no, I'm in that perspective when you are designing- - we are teaching design, and I have total control over them. Let's say you are at the end and you have them hanging in the gallery down there in the 'Model'. When you have got to that layer, when it is designed and it is there, those two boards have to communicate the next level of design that you have, but you can't be social you can't talk. You are coming in and looking at that [the public etc.] so at that stage the communication has to be- - <But who can read it? You see the people who are reading it are people from our same culture aren't they?> Not always. They can get enough- - it should be layered information. So, that they [different kinds of audiences] can get enough from a first reading of it. Say a school group comes in and they take the meaning out of it that they can about something. The next	line 537-541 line 1258-1267 line 1449-1452 line 1454-1455 line 1457 line 1459 line 1461 line 1463-1464 line 1466 line 1468 line 1475-1477 line 1479-1489

Figure 10: Staff Focus Group

					<p>layer somebody else takes meaning out of. So, there are all layers of meaning that can be taken from it no matter who you are in the social context. Of course, when it comes to architects they will be looking at the detailed plans and reading those in relation to one another. But what we try to teach the students is, that there should be a layer of information that somebody coming in - there should be some propositional drawings that captures anybody's imagination. So, there are layers of information for different people. Are they different messages, are they partly different messages?</p> <p>RM: No, they are just different.</p> <p>SP4: No, they are just different layers of messages. But they are presented in different layers that everybody can catch some meaning. And for me that's what I would be putting up. To communicate architecture to all different levels of community from how you present it, and that was what we were looking at in terms of the model, in terms of the competition, and that is what I think is the secret of bringing architecture back into the community. So, you can get your message across through different layers of communication.</p> <p>SP3: There is another interesting thing which is that people - because people construct meaning differently arguably - it may be that sometimes the little drawings or the sketches or whatever one of those students do, means they learn more from them than another person might, you know. And they actually help them to go forward. But it might be a different kind of drawing or medium that they are able to communicate through.</p> <p>SP1: But the thing is that could be the case, but all I am saying is that -</p> <p>RM: <I am coming from a constructive perspective.></p> <p>SP1: -- Yes, I am coming from a constructive perspective too, but what I am saying is, there are different angles and perspectives that come up when you are teaching, and how you do it, and then there are so many layers to what you have to do in the communication of architecture to many different types of people. There are different layers that come in so -</p> <p>SP4: <Would that not -?></p> <p>RM: I am not saying a constructive perspective is better than any other perspective I am just trying to find myself in all of this. I think that is the way I go about it.</p> <p>SP4: What is the difference between constructivism and constructionism?</p> <p>RM: Constructionism is when you are talking about the collective.</p> <p>SP3: There is another constructionism [making] ((inaudible segment all speaking at once)). But there is a different one as well RM which is interaction with the object or with the problem itself, you know, there is nobody else there it is just you and this drawing or model or this whatever so -</p> <p>RM: Not putting a label on it. All I am trying to say is that sounds very constructive and "who am I in all of this"? So, that I can understand how that shapes the study. That is my bias.</p> <p>SP3: You have to be honest about that.</p> <p>RM: It is a bias and there is a positive and a negative to it.</p> <p>SP1: But you will probably find in your constructivism label that you will probably have another four labels in that, that comes together within that.</p> <p>SP3: You will have different caps on at different times.</p> <p>RM: I think it is my conception of reality; it is how I view how reality is made, I think really.</p> <p>SP1: But there is a lot of other layers to what you would think about things and details.</p> <p>RM: I think it is about trying to be authentic and identifying what could be your bias. I am coming at it from a particular angle and I have to define that. Need to bring this to a close thank you very much.</p>	<p>line 1491</p> <p>line 1493</p> <p>line 1495-1502</p> <p>line 1504-1509</p> <p>line 1511</p> <p>line 1513</p> <p>line 1515-1519</p> <p>line 1521</p> <p>line 1523-1525</p> <p>line 1527</p> <p>line 1529</p> <p>line 1531-1534</p> <p>line 1536-1538</p> <p>line 1540</p> <p>line 1542</p> <p>line 1544-1545</p> <p>line 1547</p> <p>line 1549-1550</p> <p>line 1552-1553</p> <p>line 1555-1557</p>
	CODE 19	DIFFERENT MODES IN DIFFERENT KINDS OF ORCHESTRATED ENSEMBLES IN DIFFERENT DIALOGUE SCENARIOS TO DO WITH PRECEDENTS IN THE DESIGNING PROCESS	Multimodality – role of modes in different review environments/contexts – functional specialisms	It is really important that I set this out in the scoping part of the introduction - also linked to code 13 - different kinds of environment for dialogue about precedents and here making point that use different collections of modes in those different scenarios (I would think that is a normal part of what happens daily anyway - however there is the issue of socialisation/mimicry etc to consider here - what the students perceive to be acceptable	<p>RM: Again, that is something I have to discuss in the writing. I have to discuss that, and I have to make it very clear that: first of all in the first scenario you painted where you are sitting around the board and you are having a different kind of conversation with them, the crit is a completely different scenario; and secondly I am choosing to focus on precedent study because they play such an important part - the reason why is I am teaching them about reading precedents and how to go about it, and it is something that is very fundamental to the way we go about informing our designs.</p> <p>SP1: I know you sort of said to them at another stage "I want you to choose similar precedents that have used the same structural method that you are looking at" and looking at models to deconstruct that and looking at that as a precedent and applying it. I am just saying that precedents are used for a specific thing, and how precedents are used throughout the design process, and how all of that is cyclic (iterative process) and comes together in how they design - so that is what I meant in the beginning. So, in your definition of what you are doing - in defining the precedent and precedent part of this task, that it is very much - it's the definition of what that is in terms of the overall context of how precedents are used through the design process. Because they may not get into using models in that particular part of the precedents analysis, but would maybe later on in their analysis of it, and what they would learn and apply to their own thinking and their meaning.</p> <p>RM: Definitely!</p>	<p>line 618-625</p> <p>line 681-693</p> <p>line 695</p>

Figure 11: Staff Focus Group

					<p>SP1: if you define it very clearly you can see the limits of what this precedent [initial precedent study task] is.</p> <p>SP2: I have made a point here [in SP2's notes for the meeting], why the precedent study task review? I am not sure right now after the discussion. My initial response to that was, why are you not looking at the bit that is not intuitive, that is not creative? And that really it is about knowledge that they evolved out of research and it is also hugely about their embedded experience. Their response to a precedent is hugely different if we have visited it, or something they are thinking about. It is the stage we have been at with the second years, particularly in the cultural thing. I was thinking about ASP6 and ASP4 and then when you look at the four key points that you pick out here it makes a bit more sense, because they are not the creative and intuitive bits at all.</p>	<p>line 697-698</p> <p>line 727-737</p>
	CODE 20	INDIVIDUALISING USE OF MULTIMODAL RESOURCES – but surely, we have expectations and we are socialising them into a way of operating - process taught and process led...	Multimodality – learning to and using multimodal resources	Again, this is something I need to discuss link to multimodality literature. We teach them how to use different modes in different modules to do with representation and communication - arch rep - manual drawing, digital - REVIT, AutoCAD, SKETCH-UP, PHOTOSHOP etc. - taught as skills mainly - not much theoretical content about the why and up to now not really any explicit training in the connections between all of these as multimodal resources at their disposal in a whole range of contexts - part of the reason for doing this study so I could talk about this in my rationale as well - deliberate instead of intuitive, mimicry, socialised behaviour.....	<p>SP4: ((Inaudible segment)) controlled like that, but is it a part of the design process where ways of learning are quite limited? I know that is not the right term but if we were all to analyse precedents would we go about it in a similar way of deconstructing things? If we are given something to design SP2 might go and read up about it, SP3 would talk to somebody, you know, much more diverse ways of going about it. Analysing precedents, it is a more manageable thing, so I understand that you are trying to impose limits on it, different ways of learning in different ways. We found the same in different parts of the process [design process], different connections between them at different stages.</p> <p>RM: I would challenge what you are saying a little bit SP4 because here is the thing. At the moment, I am talking to the third years, because obviously, it is a large part of what we are doing [precedent study in theory] and ASP6 cannot read, he is not able. He is severely dyslexic. He has huge problems doing any task that is in a written format and yet arguably he is still designing. He is still making architecture. So really, for me, how does he read [analyse and interpret] precedents? He is not using reading. He is not using text to analyse precedents, he must be using something else. He must be using some other mode. He must be using visual modes maybe, perhaps, in a different way; so, we don't always all -</p> <p>SP2: <That's assuming he is doing it to the same level as everyone else.></p> <p>RM: I don't know. He mightn't be.</p> <p>SP3: Would he be able to talk about that do you think?</p> <p>RM: Well, I hope so.</p> <p>SP1: It's just that in the analyses of the precedents sometimes you don't use all of the activities you listed there. Would it limit some of your research?</p> <p>RM: I don't know, you see.</p>	<p>line 646-655</p> <p>line 657-666</p> <p>line 668</p> <p>line 670</p> <p>line 672</p> <p>line 674</p> <p>line 676-677</p> <p>line 679</p>
	CODE 21	CONSTRUCTING ARCHITECTURAL MEANING MULTIMODALLY constructing meaning /knowledge multimodally in architectural setting	Multimodality – differing perspectives on the architectural meaning making process	This is all about the 'how' of constructing meaning architecturally in range of related scenarios as perceived by my colleagues - some differences of stance here	<p>SP1: <Well I was just thinking more in terms of what the student would get out of it, your study, what you would get out of it. I mean you might analyse it and you might find that they are not all using all the multimodal resources and maybe we are not really asking them at that stage to use them all either.></p> <p>RM: They are still constructing meaning.</p> <p>SP1: Oh yes, they are constructing meaning, but it's just the variance.</p> <p>RM: It is one of the limitations of my study.</p> <p>SP1: Yes, but then you need to actually define that clearly.</p> <p>RM: It is one of the limitations.</p> <p>SP2: I have made a point here [in SP2's notes for the meeting], why the precedent study task review? I am not sure right now after the discussion. My initial response to that was, why are you not looking at the bit that is not intuitive, that is not creative? And that really it is about knowledge that they evolved out of research and it is also hugely about their embedded experience. Their response to a precedent is hugely different if we have visited it, or something they are thinking about. It is the stage we have been at with the second years, particularly in the cultural thing. I was thinking about ASP6 and ASP4 and then when you look at the four key points that you pick out here it makes a bit more sense, because they are not the creative and intuitive bits at all.</p> <p>RM: I was directing the study away from that because I am an architect and you would really need to be a psychologist if you started to investigate that.</p> <p>SP2: That's what I mean, an awful lot of this is right on the cusp there, you know, when you start to talk about metaphors that we use every day and social semiotics. That is right on the cusp of that aspect. But then if we proceed that it is not so much about the intuitive response as a creative person or as a designer that it is more about your research layout - process layout - constructed knowledge, and it is also about what you might have from your life, then I would wonder if all the modes are so relevant. Some of them are going to get tried on -</p> <p>SP1: Yeah that's what I was thinking at first. But the way that - but you see maybe it's because you have chosen research [chosen the review event to explore meaning-making] it makes sense because whenever I talk to them about precedents analysis I say that there is the research side of it, but they should also be parallel working. They know their task at that stage. They know their design they are third years. Intuitively they should be filtering out irrelevancies. They should be making immediate parallel strands, connections with any precedent study, to a task they already have in their mind of a design study, you see.</p>	<p>line 761-765</p> <p>line 767</p> <p>line 769</p> <p>line 771</p> <p>line 773</p> <p>line 775</p> <p>line 727-737</p> <p>line 739-740</p> <p>line 742-749</p> <p>line 751-775</p>

Figure 12: Staff Focus Group

					<p>cause you do not separate them out. It's this sort of layering. They are researching something as a mature designer, or as a third-year student designer. If you are looking through precedents and you know what you are designing, you know your site, you have done your site analysis. That's the intuitive part of the design process. You are automatically looking at analysing precedents through the eyes of somebody who is going to design something on a particular site. And you are automatically in your design brief. You are sketching and making references across to your precedents. So, that is the way I see that the precedents are best used. That they are kept as a separate analytical tool for certain research tasks, but our students don't get - especially when they get to third year - that is really when they should be making these connections to make mature design decisions. They have already been in design studio. They have already got their site. They will be analysing their site; so, all these complex layers of information are already coming into their minds. So, their eyes - in terms of how they view this problem will be, through the eyes of their analysis of their precedents. (different kinds of seeing)</p> <p>RM: One hundred per cent the way multimodally. line 777</p> <p>SP1: Might not be multimodally. line 779</p> <p>RM: They call what you are talking about 'interest'. They [multimodal scholars] refer to this idea of interest and really what they are talking about is that a person's interest is what determines what they focus on. line 781-783</p> <p>SP1: Interest is more defined because their design process has already started in terms of the problem, the function, yeah, but the interest? Maybe that's the word they [multimodal scholars] use to describe this? line 785-787</p> <p>SP3: Looking for opportunities in the precedents; so, it's not just interest, yeah interest being their motivation, kind of, of a thing yeah. line 789-790</p> <p>SP1: They have already visited their site. They have already made not only intuitive judgments, but they would have done some measured judging. So, they would have already done that while they are researching their precedents. If they are researching their precedents from a purely research led analytical perspective without having the other - let's say they have no information on the other side - but sometimes it is divided out - they would come out with a certain set of analyses that would be - line 792-798</p> <p>RM: I would be hoping that will surface in the interviews. line 800</p> <p>SP1: Yes, that would be the interesting part. You see that is where the multimodal communication comes through because really, and maybe at the third year - often undergraduate designers level - so sometimes that only kicks in - you like to hope. Now I know with some of our fourth years some of them don't click in, but you would like to think that (they have that) sort of real immersion in the nature of design, parallel working with all these complexities while in the design process. You really don't know what you are doing [as designers'], but actually you do because you have already done it before several times. That is the interesting part for that to click in then. Does it click in third year? Or in third year are they literally still seeing them as they are just doing a precedent study [disconnected from designing] that would be an interesting question, or interesting finding, to know when that realisation kicks in. line 802-814</p> <p>SP4: That is only in the interaction though. line 1311</p> <p>RM: That is part of it. line 1313</p> <p>SP4: It's the crit structure - wouldn't happen like that without the critique structure. line 1315-1316</p> <p>RM: But would it not be fair to say that we do that to ourselves as reflective practitioners? line 1318-1319</p> <p>SP4: Not in the same way at all. It is not instructive. It's just trial and error. line 1321</p> <p>RM: But then what was Schön talking about? He was talking about having a conversation with the materials of the situation. line 1323-1324</p> <p>SP1: Yes, you do and as you go and as you mature and are out in practice you would have conversations with yourself all the time. line 1326-1327</p> <p>SP1: But at a student level their response - line 1329</p> <p>RM: <The tutor has a big role to play in that.> line 1331</p> <p>SP1: They are the one who are sort of nudging their understanding in this context and that's what this is about in that context. line 1333-1334</p> <p>RM: That's the context I am operating in. line 1336</p> <p>SP3: So, you are also, kind of, in that situation - where you would also be looking at those students' saying something and then they correct themselves or they say no actually I meant this so - it's about all those little bits of interaction. line 1338-1341</p> <p>RM: Or they might respond to SP1 when she goes up and interacts with their presentation materials. Doing any one of anything - "do something in a model" - "oh yeah I can see now that maybe I needed to consider that". line 1343-1345</p> <p>SP1: The difference is where that interaction is, that's really around the board that's not at the review crit. That's not the crit level - need to be mature enough to learn from the critical element of the crit in terms of their design. At the crit all they are worried about is - They have worked hard. They have sat up all night, and usually it is doing and it is all on the wall, and they are very defensive. And sometimes that barrier between actually seeing it as this reflective interactive thing only happens - that doesn't necessarily always happen at the review. line 1347-1354</p> <p>RM: No, it doesn't, I agree. line 1356</p>
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Figure 13: Staff Focus Group

					<p>SP1: That happens more at the one to one.</p> <p>RM: But what happens in the crit event may lead to that discussion at one to one.</p> <p>SP2: What we said a second ago, okay, is there some action- - no not action. Is there some piece of communication, some piece of multimodal media that in this process performs as a link between the feedback and the student? In other words, is there something that you feed into and they take out of- - or they feed into and you take out of? Whereas if we are talking about the way this is worded, and the way I have been thinking about it since I have been reading it, it's all on the students' side. It is what they choose to put up. What they choose to present. And much of it doesn't work. Much of it (what the student puts up) misses the point. So, is the bit that focuses on the enacting architecture and architectural meaning is (it) the bit where those two come together with the choice of the media; whenever that choice of media allows the viewer or the feedback from the tutor to plug into it, you know, and then take something out of it and vice versa? Because a lot of it might not do that. A lot of it is just whoosh.</p> <p>RM: No, absolutely, what you are saying is absolutely correct.</p> <p>SP2: And if that is the case then that is the connection between meaning-making and how they choose to present it. Part of it might be just what they say.</p> <p>SP1: But the emphasis- - role then comes back on the reviewers in terms of their interaction with it, because the student's when they are presenting it- - it could be the middle of the day and they could be tired and you are looking at them and you have fifty million things to say. Somebody else might have said something. It's how you interact with them, or their peers interact with them.</p> <p>RM: I would say that is a conclusion at the moment. It is an assumption. But say in the process of looking at my analysis of them that becomes one of my major conclusions, I would think that would be very helpful to me as a team member and me disseminating it to you and the rest of the team. And then making decisions about how we are going to change, or transform, or modify, or refine the review tools that we use. That's the whole point of the research. Being able to explain the process to the students in a different way; so, that they understand it in a different way, so that is there for them, the review, as a positive resource in terms of the process.</p> <p>SP1: A positive interactive zone rather than what is usually thought of as a defensive space for a lot of the students, because it is like a 'them and us' zone. Because even if any of us were presenting about anything you automatically have to tailor it to your own anatomy of doing a presentation. The interaction is very different, unless you put people interacting at a higher level, whether you are presenting at a conference, or when you are presenting a paper. The interaction that is happening is very different. You are already at another level than the sitting around the table conversation that goes on.</p> <p>SP2: For me the assumption wouldn't be- - for me the assumption would be (the) opposite. That that meaning could exist if the mode was just a superficial act, just a communication act. It only creates architectural meaning when it provides that moment for- -</p> <p>SP1: <But just let us say they put a presentation up, and they have all the meaning, and their diagramming, and their models, and they are presenting it; there is a lot of meaning in that. Sometimes the dialogic communication thing only happens whenever they haven't presented their meaning.></p> <p>SP2: I didn't mean just about the tutor. Like if they do something and have utilised their multimodal, whatever they have done nobody can understand what it is- - nobody can perceive it as a piece of architecture and still they have used all the modes. In order for enacting architecture or for architectural meaning to be there, what it has to mean is whatever they choose- - whatever mode they choose to manifest their idea in is capable of allowing other people into it and back out of it. (functional specialism of modes/ visual media - literacy)</p> <p>RM: Absolutely, they say that is about the subconscious, so again I would say there is a set of assumptions I have to identify around this idea that we are operating- - because I am operating in an absolutely specific context and that is something that has to be talked about.</p> <p>SP1: And I suppose at that point- - with a lot of creative flux going on in terms of the project because we take into our communications all those different things. Because if they are entering something else- - if they are entering a competition they are not there to speak about it. So, all of that has to be in- - And their final presentation that usually goes up in their exhibition at the end- - they have to capture their meaning without having to speak. While that's a different, that's a very, you know, that's another layer when you can actually pick another meaning than through verbal meaning, move through other methods and modes of communication to be able to explain what you are doing. And then there is comments coming back from the tutors and there is that dialogue. So, that only happens at those moments when the project is at those pivotal moments that we define as moving it on... that's different than other situation in the process.</p>	<p>line 1358</p> <p>line 1360-1361</p> <p>line 1363-1376</p> <p>line 1378</p> <p>line 1380-1381</p> <p>line 1383-1388</p> <p>line 1390-1399</p> <p>line 1401-1409</p> <p>line 1411-1414</p> <p>line 1416-1420</p> <p>line 1422-1428</p> <p>line 1430-1433</p> <p>line 1435-1447</p>
	CODE 22	INTEREST - WHAT GRABS THEIR ATTENTION - WHAT GRABS OUR ATTENTION AND WHY? -Interest - what	Multimodality – interest – link to social semiotic strand	This is one of the key components of multimodal theory of social semiotic communication as a starting point for the meaning making process link to Kress 2010	<p>SP2: Think about how differently we would perceive it, the review in first year, where they are given a list of precedents. They are handed the building. You just look at that and they go and look it up and they say that or whatever, and maybe they have got some building site. Think of the difference of a situation where it has not been structured like that and</p>	line 845-853

Figure 14: Staff Focus Group

		grabs the ASPs interest as they set about the initial precedent study task			<p>RM: something appears completely from left field. Someone has actually chosen something that you can see hasn't been chosen by a research led process; it's come from somewhere different. Is that part of how- -? This is where I am struggling.</p> <p>SP2: What you are saying is right SP2. There is a strong likelihood this happens. That is very important to me because I want to know why did you go there? Why did that grab your attention? What was it about it? You had a brief, it had directions in it. What was it about the interpreting? When you were deconstructing that brief for yourself what was it that actually made you make the decision to focus on that one?</p> <p>SP2: Well I am thinking about myself, if I see that in studio, that's when I would say to myself "whoosh that's an intuitive design decision".</p> <p>SP1: Yeah and part of me loves that because it has to do with the conceptual layered approach. They are thinking they will design in a certain way, okay so the precedents are sort of left.</p> <p>SP4: It's in your mind in the first place, what makes you notice that this is relevant. So, it is not a bad thing.</p> <p>SP1: It is almost like the opposite of the four things that are here; so, is it that?</p> <p>SP2: It's not really the opposite of them because within the theory, it's probably not in there [the information sheet], because it is when you get into the nitty gritty of the theory; but it's this idea that actually you could teach twenty people the same group of information and ask them to give it back to you and they all focus on different aspects of what you taught them. And really what I am getting at is how did this happen? And how did they then construct meaning?</p> <p>SP2: The precedent study task review can be anything from a given preview of precedents. There is the website they are on, right through to something that shows someone is actually right through to the other side and is now operating on that intuitive and creative level. Like student A last year, that drove us insane, because she would not do what we asked her to.</p> <p>SP2: She would not follow any time-frame or any process but on several occasions, something just appeared and we went "woof! where did that come from?"</p> <p>RM: That's not a problem in this SP2, that's just- - all I need to do is find out why did you go there? Why could you not follow the brief? would be a question I might ask them.</p> <p>SP2: What's going to happen in this if one of those third years in this precedent process does that?</p> <p>RM: I want to know why did you go there? I just need to know what prompted them to go there. What was it about their prior experience that led them to actually make a decision that they would go in that direction. What was attractive about that direction?</p> <p>SP3: Yeah what shaped their decision. Was it one of their shaping metaphors? Was it something to do with- - was it luck? Was it they saw something or what SP1 was talking about, they had all this other work done?</p> <p>SP4: And then it's about what you were saying earlier. It is what people do with that information then that makes a difference. There is a lot to analyse there!</p>	<p>line 855-860</p> <p>line 862-863</p> <p>line 865-867</p> <p>line 869-870</p> <p>line 872</p> <p>line 874</p> <p>line 876-882</p> <p>line 884-888</p> <p>line 890-892</p> <p>line 894-896</p> <p>line 898-899</p> <p>line 901-903</p> <p>line 905</p> <p>line 907-909</p> <p>line 911-913</p>
CODE 23	LEARNING QUALITY TYPES -	Learning and transformation-contested nature of knowledge production – different kinds of learning valued differently	surface versus deep design learning - quality of the meaning making relative to designing process - fact that going through the mechanics of deconstructing precedents identifying architectural thinking, strategy and mechanisms does not guarantee findings will be used appropriately in designing process is what my colleagues are putting forward and something we witness - but how true is this is it about surface versus deep learning are they making the right connections can they see across the designing process? - different perception of what meaning-making is and involves and different perceptions of what is valuable in terms of meaning-making in architectural context - surely deconstructing the precedents helps the student identify links between thinking conceptual approach, identify architectural strategy linked to that and the architectural mechanisms used to realise those strategies??	<p>RM: Exactly! Plus, again, all of the things that SP1 has raised because that is part of the context and the background to the research. I am going to be talking about the review event and I am going to be talking about the precedent study. So, I will have to explain to my readers that this is only one tiny bit of something that is much larger, and other things can happen, but I am focusing on that one event.</p> <p>SP3: In that instance, there will probably be different things when they are preparing for it, and (when) they are getting the drawings and things together and they are reading and analysing, and when they are actually communicating about them, for them. So, like for instance, you are drawing away at your board, and you are nice and relaxed, and you are thinking in a particular mode, but once you are up there [presenting during the review event] and you are communicating it, there is also the element of, you have forgotten your words, but there you have it in the drawings. There is that element which is to do with actually communicating in a scary moment, and how you use the tools in that instance, which is very different to the preparation process.</p> <p>SP4: ((Inaudible segment, everybody is speaking at once)).</p> <p>SP1: That's the funny thing that's the difference. If you are looking at them they could have all their multimodal stuff there, but it still could be pretty rubbish, in terms of their findings. You know they could be using all their stuff and they could be explaining this, and pointing out models, and doing diagrams; but actually, what they are actually doing may not be leading into, or be the right move into what they are doing in their design process.</p> <p>RM: I suppose part of what I am doing is, I will be looking at the actual artefacts.</p> <p>SP1: But a lot of students can put it up there and can talk through their methods of this, and can be looking at this, and they have it all there in terms of the communication skills, both drawing and things; but actually, you know, I am just saying, not really going forward. Is it going to make meaning in terms of their design process?</p> <p>SP4: Is that not about the constraints you are talking about?</p> <p>SP1: Yeah it is but- -</p> <p>RM: Take that scenario, because it is an important scenario. What normally happens in that scenario, in the review process, is that we intervene, you might go up to any one of those</p>	<p>line 988-993</p> <p>line 995-1005</p> <p>line 1007</p> <p>line 1009-1014</p> <p>line 1016</p> <p>line 1018-1022</p> <p>line 1024</p> <p>line 1026</p> <p>line 1028-1036</p>	

Figure 15: Staff Focus Group

					<p>artefacts to explain, for example, that what you [the student] have written, that is not analysis that is description. And that maybe you [the student] needed to alter the drawing this way, and you might take your pen and you might show them. That is very important to me as well because that is what I am actually looking at, that interaction between you and them, is actually what helps them to change, by thinking about what it is - what they thought they were learning.</p> <p>SP1: So, the analysis you are involved in after the review process then, that's when the interviews are happening.</p> <p>RM: Yes, afterwards.</p> <p>SP1: After you have looked at the review?</p> <p>RM: Well, I am filming the review process.</p> <p>SP1: So, their interview process, then, is a reflective consideration of how the review went and what they were going to put in place to move it forward?</p> <p>RM: Exactly! Well it's a series of questions about how they approached the task. How they actually constructed the materials [presentation artefacts] and how the actual process of the review went?</p> <p>SP1: But the learning out of it you see, the meaning making, how did that process then affect things, because that is the big thing? That's part of the analysis. That's the next big piece. How could that help them move forward their design?</p> <p>RM: Yes, I am asking questions about that.</p> <p>SP4: Is it anything about the value of what they are learning?</p> <p>RM: No I am not about that. I am mapping the meaning-making process. But I am after the performative aspects (also).</p> <p>RM: No there is no guarantee. You could actually analyse precedents really well. You could uncover all the design language. You could create your framework. But there is still no guarantee that what you produce at the end [of the designing process] is at the right level.</p> <p>SP2: No because the intuitive creative part is not part of that process. The intuitive creative part is over here [using hands to show distance]. This is a research task.</p> <p>SP1: See, well, the sum of the parts does not add up to the whole. I remember that big discussion with [External Client A]. If you deconstruct something so rich you will find that even in any piece of it, all the sums do not add up to what the whole is. The whole issue is usually much bigger - or it can be much less. That you can analyse and deconstruct something so rich that actually you miss the actual creative leap that people actually make in the design process that comes from the teaching. So, that is another huge discussion.</p> <p>RM: But there are two schools of thought about that [referring to flash of inspiration versus expertise developed over time and experience continuum].</p> <p>SP1: But that is interesting. There are two schools of thought about this and I'd say the same for us around this table - and really around the table in terms of how we teach these students and what we ask of them actually. And I think there should be room for that. And I don't think we should all be speaking from the same page anyway. And I think that you adapt how you teach to different students in terms of what their needs are as well. Because you know that some students need to have more research into the bits, while other students are already seeing the bigger picture and they are already looking at it on another level. As an academic, as a professional, you can read your students, to a certain extent, if you know them by the time they get to third and fourth year, in terms of what they need. Where the gaps would be and where they need to focus as well. So, there are a lot of layers come into this from a teaching perspective.</p> <p>RM: Yes, and I think that is why we have always recognised why the team is so valuable, for that reason.</p> <p>SP1: Yes, I agree, here and in companies, all teaching teams have to have a mixture of people that bring it together, and then the student wins out. That's a result of a good team.</p>	<p>line 1038-1039</p> <p>line 1041</p> <p>line 1043</p> <p>line 1045</p> <p>line 1047-1048</p> <p>line 1050-1052</p> <p>line 1054-1057</p> <p>line 1059</p> <p>line 1061</p> <p>line 1063-1064</p> <p>line 1118-1121</p> <p>line 1123-1125</p> <p>line 1127-1134</p> <p>line 1136-1138</p> <p>line 1140-1152</p> <p>line 1154-1155</p> <p>line 1157-1159</p>
	CODE 24	REFLECTING, REVIEWING AND REFINING AFTER REVIEWS - REFLECTIVE CONVERSATION WITH SELF AND OTHERS AFTER REVIEW EVENT	Multimodality – learning - critical reflection	This code has to do with reflecting, reviewing and refining ones thinking and behaviour as part of the meaning-making process - spoke to the ASPs about this in interviews	<p>SP1: If you think about it we sit with students and talk to them about it after their review. Some of them don't really hear what you are saying [in the crit event] and also the actual action points you are trying to make they actually don't hear them because -</p> <p>SP4: <They don't listen.></p> <p>SP1: They themselves miss out on things you may have spoken to them about on the board unless they have people listening in. So, that is what I was saying about actually standing up in front of people in the review. Think about how much there is blank about that process itself which would give very different information. So, if it is clear - I know you have a really limited time for what you have to do - so what you say you have done is, really, define the parameters to limit what you are doing here. That this is only a certain stage that this is at, you know. And setting out all the other parts of the criteria that would be different, if you are standing in front of your peers and a review group than it would be between communicating using multimodal and getting architectural meaning between me and you sitting around the board. It's still information but it is only between two of us.</p>	<p>line 1212-1215</p> <p>line 1217</p> <p>line 1219-1230</p>

Figure 16: Staff Focus Group

Appendix 1B: Questionnaire Matrices

Questionnaire Responses and Analysis

QUESTIONNAIRE											
PART A				PART B							
Factual Information				Values and Beliefs							
	A1	A2	A3	B1	B2	B3	B4	B5	B6	ADDITIONAL COMMENTS	
				Learning Style	values - life	values - architectural	impact of life and architectural values on architectural studies - is this about agency	info about preparation for reviews generally	general info about perceptions of review process experiences over time		
	In what year were you born?	What is your nationality?	Notes Please provide any additional factual information about your background you think may have a bearing on your approach to your architectural studies in this box:	Describe yourself as a learner in as much detail as possible	Tell me about the values that are most important to you in your life generally (for example, how people should behave towards one another)	Tell me about the architectural values that underpin your architectural work (for example, what kind of designer are you?)	Describe the ways you think both sets of values (life and architectural) inform and influence how you go about your studies as an architectural student	Outline in as much detail as you can how you prepare for the review process in design studio (e.g. the decision making around, and construction of, your representation materials including 2D and 3D artefacts)	Tell me about your review process experiences during your time here as an architectural student (e.g. the things you enjoy, the positives, the negatives, the impact of the feedback from your peers and tutors on your understanding)		
ASPQ1	24	1993	Irish	nothing added	I've always really enjoyed my education, from primary school to college and have excelled in various areas in it throughout this time compared to other activities. I think this has developed my approach to learning in a major way. I always try to fully understand my tasks so I can be able to fully approach it with a complete knowledge of what needs to be done. I do think, though, that I can become very disappointed in my performance in tasks if I do something wrong or have misunderstood what needed to be done. Researching tasks is a go to 1st step for me in the beginning although I do sometimes struggle to completely synthesise all the information I find and I think this may be what can sometimes make me feel disappointed in my performance. However, with this base knowledge, I usually do a lot of contemplating and thinking on the task and how the info can be applied rather than working on it in a physical manner. Another element of me as a learner is that if I don't understand something I like to ask questions. I definitely wouldn't be someone who gets down to the nitty gritty of task immediately and tend to procrastinate till I feel the pressure to get stuff done. But generally, I've always loved learning and acquiring new knowledge since I was very young	in life in general, my values are varied and numerous most like anyone. One of my major ones is loyalty. I do think that this attitude to relationships (family/friends etc.) is very important. I think treating people with the same treatment you would expect is something that should influence my responses to people (although like anyone, I can struggle with this sometimes). Dedication to what you want to do, and the ability to finish something that I've started. When I start something, I want to finish it to my best ability, and I am usually disappointed if I didn't apply myself to my best abilities. I would say that I am competitive, both with myself and with others. It's not that I want to be a champion above all else but that I want to exceed my own standards and be the best I can be. To be respected for my achievements, I believe respect should be earned by individuals, that their actions are of a nature that can be seen as influential or role models, something to be aspire to, rather than having to respect something that has no basis or evidence to back it up as credible. I think that respect and being courteous are different, by giving your seat up to someone who needs it, or holding the door open for someone or simply saying hello to people you pass on the street, is just being a nice and kind person	in my architectural approach and designs I value creating spaces for people, so that the users are always at the forefront of everything being done, and every decision being made. I also recently have become more and more concerned with creating sustainable and eco-friendly designs that elevate the users experience but also helps with our ongoing onslaught of environmental constraints and problems. The use of natural materials has been a major decision I have made in most of my design tasks in light of this. Light and space are other key values I have in my architecture. The ability to create light and open spaces where needed is something that I'm drawn to, the sense of calm it gives. Although I recognise that this may not always be a possibility for design problems where criteria and needs dictate. I also steer more towards creating an artefact that works in harmony with its context rather than in contrast. I value the simplicity and elegance of this. Creating architecture that works with the site and its context is also important to me. for a piece to work it needs to consider its environment and culture surrounding it	Both values are definitely inter-related when it comes to going about my studies as an architectural student. My values in my personal/general life like dedication, respect, competitiveness, courteousness definitely influence how I go about my learning. I try to complete tasks to my full extents, to my full capabilities and become irritated if I don't. I try harder to be successful because I do want to earn the respect of my peers and lecturers but also because I am competitive by nature and often compare my achievements to others. But I also like to think that I am kind and courteous to others, I try to help when needed or wanted and I try to interact in a way that doesn't look down on others or create tensions in the college environment. The architectural values inform and influence my approach to projects and designs. I want the spaces to always take the user into account and not focus on aesthetics. I want to create something that won't harm the environment and the users, something that can stand the test of time. These all influence how I approach the problems, where I look for precedents/why I choose them/why I choose strategies, materials, construction form etc.	I approach the design process, firstly by fully comprehending what is needed for the review and making a list of artefacts needed for the process. Then I break down these into smaller tasks that can be done easily and quickly. Before I begin any representation, I spend time doing research and taking notes. With these notes, I extract information I find important. Then begin to determine the best way to represent those findings whether diagrams/sketches/text etc. When I have created a list of individual items to be completed, I do each separately and then combine them into the final 2D/3D representation. I like to order them in a coherent way so as a person with no knowledge, the item, can be read coherently. I tend to look at things in a wider viewpoint and then focus on the smaller details. I try to explain my thoughts through text and diagrams so each can be read easily.	The review process is a mixed bag for me. I am glad for the opportunity to receive constructive criticism on my work, so I can improve each time I do something. And I understand that it is preparation for us as students to be able to express our ideas in a coherent way to people in the future under pressured environments. This does improve my presentation skills for the future and helps me work on not taking criticism personally but as a way to only push myself and my work to greater heights. I do think that there should be an equal amount of formal reviews to less formal crits in studio. The formal reviews help us in the way I have said earlier and the less formal crit is an easier platform to develop your schemes in a less pressured environment where you feel more comfortable to express your ideas/viewpoints/worries without the audience that usually comes with reviews.	no comment added

Figure 17: Questionnaire ASPQ1 Response

ANALYSIS							
Comments First 'reading'	<p>Notes to self</p> <p>A number of habits of expectation (Mezirow, 1991, p.1) and or metaphorical turns of phrase are evident in ASP1s (and other participants) responses in the questionnaire indicating perhaps habituated ways of thinking and doing generally (in a meaning making sense) and as an architectural student in terms of learning - using our meaning making experiences to guide future action constitutes learning (Mezirow, 1991, p.1) - Habits of expectation (Mezirow, 1991, p.1) - link to meaning schemes and perspectives (Mezirow, 1991, p.1-3)- meaning schemes - habituated expectations, meaning perspectives overarching beliefs, theories, goal orientations, familiar roles - student teacher, parent child (Mezirow, 1991, p.1-3) - many of our meaning perspectives are taken on board via what Mezirow (1991, p.3) calls "cultural assimilation". We do however learn others deliberately and sometimes unintentionally such as stereotypical beliefs about what it means to be female or male for example. Our meaning perspectives generate the criteria or guidelines on which we base our interpretations and we project the qualities of these categories or what Mezirow (1991) calls "symbol systems (p.3) onto the things or events we experience (p.3) - thus our meaning schemes and perspectives affect and limit what we learn (p.3)</p> <p>Link to literature - Mezirow, 1991; Stein and Newfield, 2006; Lakoff and Johnson, 1980.</p> <p>ASP1s responses in the questionnaire suggest that she incorporates a number of different but related metaphorical concepts (Lakoff and Johnson, 1980, p.1-5) that structure her everyday activities on a personal and student level</p> <p>Performance and competition metaphors - dominates ASP1s thinking about and behaviours in studio and review scenarios - exceed own standards, excelling, winning...</p> <p>Possibly many of the things she does when she is constructing her thinking as a response as student relates to the idea that she is performing and or competing - against self and others - she uses words associated with performing - excelling, platform, exceeding own standards...</p> <p>Other metaphors that are possibly surfacing include:</p> <p>Time is Money metaphor - earning respect - link to power and agency - stand the test of time</p> <p>Crime scene/building metaphor (constructing evidence) metaphor linked to constructive approach to learning - evidence based to be credible decision making and feedback emphasised - researching</p> <p>Shopping metaphor - mixed bag re reviews</p> <p>It is Lakoff and Johnson's (1980) view metaphors are omnipresent/inescapable/persistent in ever- day life (p.3) and can be found in our language (talking, visual media), thoughts (mental and visual reasoning) and actions (what we do) - they claim our conceptual systems underpinning our thoughts and actions primarily embody metaphorical characteristics (p.3). This means metaphor is involved in our thinking (human thought processes are metaphorical - p.5), experiences and our actions</p> <p>At the research site, arguably, we promote a collaborative, performative, constructive and problems solving paradigm (other colleges may have structured their sub culture (CoP) in terms of competition and individualism....</p>	<p>highly motivated student with high expectations of self which works against her if she receives critical comment - research one of her strengths as is understanding, analysing and synthesising - applying more difficult- performance oriented (metaphor for this student)</p>	<p>loyalty, dedication, respect, finish what is started, exceed own standards, respect has to be earned, evidence based credible behaviour, courteous</p>	<p>designing for individual/people and their needs and comfort. Then being sustainable and eco-friendly in designs to address all peoples and mind the planet - using natural materials sustainably. Health and well-being - light and space - working in harmony with context - all linked to project brief</p>	<p>states personal values underpin and drive the ways she goes about learning on the programme - influences identity as designer also - respectful and helpful - others environment... Always take user into account not focus on aesthetics - something that does not harm the environment can stand the test of time - influences strategies, materials, making architecture</p>	<p>has a very clear understanding of her own process - reflective and critical - thinks about audience - moves from the macro into micro - uses text and visual modes to explain thinking - to do with roles - focus though is on own process</p> <p>GOES THROUGH A SET OF STEPS - INCULCATED PROTOCOL/METHOD</p>	<p>constructive metaphor to do with review process and comments about work - get to greater heights - so up is good as a metaphor - climbing higher - using platform again sense of climbing ascending - climbing metaphor - platforms in the ascent</p>
Second 'reading'	<p>Learner attributes</p> <p>Enjoys being educated and learning</p> <p>Needs to understand - clarity - questions</p> <p>Competitive and performance oriented - linked to cultural and institutional and national agenda - education is performance oriented</p> <p>Doing well - excelling is important</p> <p>Researching to find out so she can understand and excel first step - values investigation</p> <p>Link to literature - Mezirow, 1991; Stein and Newfield, 2006; Lakoff and Johnson, 1980</p>	<p>Personal values</p> <p>Puts forward the view that people have a number of values</p> <p>Loyalty is a key value</p> <p>Respect - treating people how you would like to be treated</p> <p>Dedication and tenacity - finish what you start</p> <p>Competitive with self and others - using word champion in positive sense - best you can be - exceed own standards - constantly improving (competition and performance metaphors)</p> <p>Respect - has to be earned - looks for role models - aspiration/inspiration (money is power metaphor - connection to power? - link to literature) - decision making has to be evidence based (crime scene/construct evidence metaphor) - link to Lakoff and Johnson, 1980; Mezirow, 1991</p>	<p>Architectural values</p> <p>Foremost - taking the user into account underpins design decision making - other oriented</p> <p>Possibly as result of current project focused on generating sustainable and eco-friendly architecture - mind our environment</p> <p>Interested in providing optimum lighting conditions and open space - healthy living (part of discourse to do with social housing) - is it accepted on face value?</p> <p>Prefers to work in harmony with rather than in contrast to context (architecture that sits into and works with site)</p> <p>Aesthetic - simplicity and elegance</p> <p>Uses architectural terminology generally and that associated with current project - ideology translated into architectural strategy linked to architectural devices - open space for instance- optimising lighting conditions - impact calm</p>	<p>Impact of both set of values on architectural studies</p> <p>Personal values influence and shape the ways ASP1 goes about her studies and interacts with her peers and tutors</p> <p>Does her best - works hard - Motivated by excelling and gaining the respect of her tutors and peers - competitive - compares achievements with others - performance and 'winning' important?</p> <p>However, strives to be kind and courteous to others at the same time - help others out who are struggling (collaborative and respectful to those struggling)</p> <p>Wants to create designs that do not harm the environment or the user - stand the test of time (link to research - evidence based conclusions)</p>	<p>Process associated with doing the precedent study task and constructing the message that constitutes her presentation sheets - part of orchestrated ensemble</p> <p>Follows a Protocol</p> <p>Needs to understand what she is being asked to do first</p> <p>Then she frames the problem- what does she need to do to address the task for the review?</p> <p>Breaks the job down into a number of smaller tasks</p> <p>Researches and makes notes - textual and visual (came out of interview - link)</p> <p>Then extracts what she considers key information (interest - what grabs her attention and why? Is it linked to 'dues' in brief or research or both - both - link to multimodality literature)</p> <p>Moves from the macro to the micro</p> <p>Makes deliberate decisions about how the architectural message should be constructed and conveyed - thinking about different audiences not just those with insider knowledge - using a variety of different 2D and 3D visual and textual media - link to literature about functional specialisms of each mode</p> <p>Thinks purposefully about layout of media on presentation sheet - taught about this aspect of architectural communication, meaning making in architectural representation modules as well as studio - link to literature - how much of the process is 'learnt' how much innate?</p>	<p>Perspective on the review events - formal and informal</p> <p>Views the review process as a mixed bag (shopping/constructing metaphor - ties into education as productive and performance oriented?) - link to literature</p> <p>Preparation for and simulation of what happens in pressurised real life practice scenario (sees architectural practice as being stressful and pressurised based on experiences of programme?)</p> <p>Opportunities to practice dealing with criticism (acceptance criticism is part and parcel of working as a designer?)</p> <p>Way of motivating self to doing better</p> <p>Thinks there should be an equal balance between formal and informal crits (balancing act - performance metaphor)</p> <p>informal easier platform (stage) and less pressure (performance metaphor)</p>	

Figure 18: Questionnaire ASPQ1 Analysis

QUESTIONNAIRE												
PART A	Factual Information				PART B	Values and Beliefs						
	A1	A2	A3		B1	B2	B3	B4	B5	B6	ADDITIONAL COMMENTS	
	in what year were you born?	What is your nationality?	Notes Please provide any additional factual information about your background you think may have a bearing on your approach to your architectural studies in this box:		Describe yourself as a learner in as much detail as possible	Tell me about the values that are most important to you in your life generally (for example, how people should behave towards one another)	Tell me about the architectural values that underpin your architectural work (for example, what kind of designer are you?)	Describe the ways you think both sets of values (life and architectural) inform and influence how you go about your studies as an architectural student	Outline in as much detail as you can how you prepare for the review process in design studio (e.g. the decision making around, and construction of, your representation materials including 2D and 3D artefacts)	Tell me about your review process experiences during your time here as an architectural student (e.g. the things you enjoy, the positives, the negatives, the impact of the feedback from your peers and tutors on your understanding)		
ASPQ2	58	1959	British	Born in a small provincial seaside town. Went to Grammar school mixed in middle class environment and went to university (Red brick). Parents both professional middle class. Mother Danish physiotherapist, Father a Captain in merchant navy. Hence away a great deal and therefore science element of education poor. Had a flare for arts and creativity. Spent most of my career either in fashion industry or textile interior sector. Both parents encouraged the arts and appreciation of them in all forms. Definite influence from Scandinavia and travelling to very different countries and cultures has had a huge influence.	Brought up before digital age, hence will go to the book if possible, - maybe it's a tactile quality? I prefer to have a handout with a lecture so that it can be referred back to at a later stage, make notes on it etc. I also like the idea of having an Q and A quiz after a particular topic - that way more of the information could be retained. I have become used to reviews now in my third year. It is what it is- no one can eat me and I know that even if I have another day/week I will never be ready - and invariably the printer is either out of ink, or something at the end goes/could go wrong. I believe that everyone should be treated with respect and find that I'm sad when someone is belittled in front of a peer group - I think there are ways and means of getting a point across without ridicule - I think that it appears that in architectural schools in the past, and possibly in practice, that abuse has and possibly is still systemic. I have encountered this in the textile industry and it is most demoralizing!	Integrity, trustworthiness is paramount. I dislike any one prying into my business and it is of great importance to treat everyone in all walks of life with the same respect as one would hope that they will treat you. I believe this should be the case between student and tutor also (maybe it's a mature student stance?). Friendship is of utmost importance - more so than family in most circumstances. Sharing and being part of a team is an important part of life and sometimes both in a class environment and certainly in a working office/studio team work is essential to getting a good job done on time.	My architectural values are similar to those of a personal nature. Integrity to the site, environment, sustainability and human well-being would be essential features when designing. (Natural) light, tactile natural materials as opposed to man-made ones would be a key factor. Future proofing and simple (generally geometric forms) would be employed. I would certainly re-visit my Scandinavian minimalist roots in a great many cases and favour Japanese design also (possibly a throw-back to growing up in a household with oriental artefacts). I would also (having lived in London for numerous years without outdoor space) be acutely conscious that even a postage stamp of an outside area is invaluable to the psyche of a human being and therefore I try to introduce this into my design. Maybe this also influences the open plan design strategy? And attention to views?	As a mature student with a wide range of very different personal and professional influences, this has had a huge influence on how I go about my studies. I am not sure whether it is best to have a blank canvas when you start out on this course because maybe you would be open to a wider range of interpretations. I think it would be very difficult to ignore my core personal and architectural values and design unethically, i.e. just for money. Also as land becomes scarcer it is profoundly important to create buildings that will still be enjoyed by future generations and that are not just for now. I actually think that it is almost immoral to produce bad architecture. I suppose coming from this perspective makes me more critical of one's own design but my worst fear is going through the whole design process and realising that not only is the design mediocre but perceived as actually poor.	I try and research how other architectural schools present. I wish I had greater drawing skills and photoshop skills so that a wider selection of creative elements could be used during the presentation. This is the first time that I have come to a subject matter where I never feel quite prepared. This is because so many new skills are required i.e. drawing, modelling, etc. Under normal circumstances you can gauge a timescale for preparation but this is not the case in this subject. It is formidable and there are so many wide-ranging modules that need to be covered in quite in-depth detail. Also, no matter how much planning takes place you run out of time and fall short of your own hopes and aspirations as to how the presentation will go	I think the thing I enjoy the best is the camaraderie particularly on the morning/afternoon of the event. I feel no sense of competition, as really, I am doing solely for myself and just hope that it goes "alright on the night". I obviously enjoy the positive feedback and if someone particularly complements me on my drawings/art work - HUGE! Particularly as I came to this area with zero [D] skills. The negatives are if someone else gets a bad crit although I welcome criticism myself and try and see the positives from this - the tutors are more knowledgeable and naturally we can only gain from this. I think note taking is important because whilst you are "on stage" you can't take it all in so it is good to be able to re-cap when it is all over. Reviews though stressful are important as more of this type of thing appears to be taking place in the working environment therefore you will feel less inhibited later on in the work place.	no comment added	

Figure 19: Questionnaire ASPQ2 Response

ANALYSIS		Additional facts							
Comment first reading	<p>Notes to self</p> <p>states thinking and doing generally linked to prior educational and work life experiences – focuses on negative aspects of managing learning in this specific context – lack of control over outcomes, out of her depth</p> <p>However, what she is saying in her responses suggests that many factors 'outside her control' are making life difficult in this learning environment including lack of necessary skill – not learning fast enough/ not managing time so that she gets to practice enough?</p> <p>Uses strong negative language to describe (hit out?) - things break down, ridicule, belittling, systemic abuse – does not state explicitly but is possibly implying that there is a negative environment operating on the programme – hitting out?</p> <p>Doesn't have the skills (why? Is it that she believes she has not been taught these or given enough time and space to develop and practice?)</p> <p>Does not like being out of comfort zone – not performing to own expectations?</p> <p>Needs concrete and tangible learning resources</p> <p>Is this about not taking responsibility for own learning? – unreal expectations? Performance issues? – used to doing well – thresholds of learning? Link to literature</p> <p>Performance metaphor (negative connotations) – dominates ASP2s thinking about and behaviours in studio and review scenarios – all right on the night, on stage – reviews stressful events</p> <p>Jungle metaphor (negative connotations) – no one can eat me- survival of the fittest- lack of respect -systemic abuse</p> <p>Team metaphor – teamwork, camaraderie, collaborative working, all in this together (mainly with peers) though states should be between student and tutor also</p>	<p>British mature student who already has an undergraduate degree worked for number of years in the textile industry - wanted to learn how to express creative side of personality - arts valued in family life - travel has had a big impact on perspective</p>		<p>Older student and although stating prefers books in practice that is not what happens because of difficulties with managing the tasks within given time frame - needs more time to absorb things – resorts to using the digital environment but limited if what searching for does not come up immediately - issue around managing the learning environment - reacts negatively to critical comment that is perceived to be delivered in a negative or aggressive manner</p>	<p>integrity, trustworthiness, dislike of prying into personal business, respect for all from every walk of life, friendship, sharing, working within team,</p>	<p>integrity to the site, environment, sustainable practices, and human well-being essential features of her designing - use of natural light, materials with tactile qualities- influenced Scandinavian roots - minimalist also influenced by orient - need for outdoor space/outdoor views because lived without - negative influence on human psyche</p>	<p>states personal values developed and formed during prior life, study and work experiences underpin and drive the ways she goes about learning and making architecture - ethical approach key, not just for money, future proofing, fear of her designs being perceived as mediocre/poor</p>	<p>Does not answer the question directly- searches more broadly than the programme to think about how to present at reviews - as a mature student having to deal with not being in control - out of depth not prepared - difficulty managing the taking on of all the multifaceted aspects of what it means to learn to make architecture - time is big issue - not comfortable or skilled at using the wide variety of multimodal resources available and expected</p>	<p>camaraderie - collaborative metaphor - we are all in this together - performance metaphor - all right on the night - on stage</p>
Second reading	<p>Emphasises professional middle class background – is this a sign of a confidence issue?</p> <p>ASP2s responses in the questionnaire suggest that she incorporates a number of juxtapositioned metaphorical concepts (Lakoff and Johnson, 1980, p.1-5) that structure her everyday activities on a personal and student level</p>	<p>Learner attributes</p> <p>In higher education prior to digital age - is this where some of the difficulty lies in managing digital learning environment – practice time</p> <p>Likes concrete and tangible resources and approaches to learning and internalising knowledge – handouts, Q&A sessions</p> <p>Has got used to reviews – no one can eat me (jungle metaphor/)</p> <p>Difficulties managing time and college resources which views as being problematic – not enough time, machinery breaks down, something going wrong etc. – indicative of discomfiture or too high expectations of self as mature learner? – link to literature</p> <p>Believes everyone should be treated with respect in learning generally and in learning environment – uses strong language against – belittling, ridicule, systemic abuse in architectural education – negative view of how academics interact with students on the programme at research site? – not respectful at times - impact – demoralizing - Agency issue here – needs to feel in control that she can manage her learning environment in a way that suits her values and perform in conformity with her expectations – leading to negative outlook, blame, fear, frustration... link to literature – I have talked about these factors in introduction – feelings of disempowerment</p>	<p>Personal values</p> <p>Core values that are important to ASP2 include integrity, trustworthiness, privacy, respect, friendship, sharing, and working collaboratively in a team – essential to getting work done</p>	<p>Architectural values</p> <p>integrity to site, environment, Sustainable practices</p> <p>Human well-being</p> <p>Use of and manipulating natural light</p> <p>Simple geometries</p> <p>Use of materials with tactile qualities</p> <p>Scandinavian and Oriental influence</p> <p>Open planning</p> <p>Open space and views linked to health and well-being</p> <p>Uses architectural terminology generally and that associated with current project – mixed list – strategy and devices – what, and how and why in some instances</p> <p>At the research site, arguably, we promote a collaborative, performative, constructive and problems solving paradigm (other colleges may have structured their sub culture (CoP) in terms of competition and individualism... This does not appear to be ASP2s perception of what she is experiencing and witnessing – is her view coloured by her own negative feelings?</p>	<p>Impact of both set of values on architectural studies</p> <p>Key thing is that ASP2 is of the view her prior higher educational and working experiences shaping her as an architectural learner in the research site – drives how she learns, how she makes architecture</p> <p>Drawing on both personal and architectural values</p> <p>Architectural response needs to be ethical, future proofed, Biggest fear is that of her architecture being perceived as mediocre or poor because that is what she considers immoral (goes against core values)</p>	<p>Process</p> <p>Rather than answer this question directly ASP2 responds more universally – speaking out of her negative feelings or lack of agency?</p> <p>Researches – how other schools present</p> <p>Focuses in on her perceived lack of skill – particularly in the visual media analogue and digital environment</p> <p>Expresses view never feels prepared – out of her comfort zone? Was it easier in her previous degree? Out of her depth? Is that because learning to make architecture is so multi-layered and multifaceted? – need to link to literature</p> <p>Learning it all is formidable – so many new skills to learn... Big managing time issue</p> <p>But would having all the skills solve her performance issues? Designing judgements?</p> <p>Not in control – cannot predict or control how the presentation will go – issue with anticipating? - FEAR</p>	<p>Perspective on the review events – formal and informal</p> <p>Enjoys getting ready for the event – focus on the feelings of camaraderie</p> <p>Feels no sense of competition – yet negative about her performance? – says self-oriented</p> <p>Likes positive reinforcement – complements – needs progress to be applauded in face of starting point – and valued?</p> <p>Says she values criticism</p> <p>Sees reviews as stressful events</p>		

Figure 20: Questionnaire ASPQ2 Analysis

QUESTIONNAIRE												
PART A					PART B							
Factual Information					Values and Beliefs							
		A1	A2	A3		B1	B2	B3	B4	B5	B6	ADDITIONAL COMMENTS
						Learning Style	values - life	values - architectural	impact of life and architectural values on architectural studies - is this about agency	info about preparation for reviews generally	general info about perceptions of review process experiences over time	
		in what year were you born?	What is your nationality?	Notes Please provide any additional factual information about your background you think may have a bearing on your approach to your architectural studies in this box:		Describe yourself as a learner in as much detail as possible	Tell me about the values that are most important to you in your life generally (for example, how people should behave towards one another)	Tell me about the architectural values that underpin your architectural work (for example, what kind of designer are you?)	Describe the ways you think both sets of values (life and architectural) inform and influence how you go about your studies as an architectural student	Outline in as much detail as you can how you prepare for the review process in design studio (e.g. the decision making around, and construction of, your representation materials including 2D and 3D artefacts)	Tell me about your review process experiences during your time here as an architectural student (e.g. the things you enjoy, the positives, the negatives, the impact of the feedback from your peers and tutors on your understanding)	
ASPQ3	32	1985	Irish	I sat my Leaving Cert in 2002 and left school to start college in CIT at 17. I did one year of study in applied chemistry and left. My secondary school provided for business or science but did not have any subjects directed towards construction or arts. This in turn led me to what I think was the wrong direction in life directly after school. It was work life that led me back in the right direction.		Through school I was a good student with poor application . I did not enjoy a lot of the subjects and therefore I did not put in a lot of study . My input in class would have outweighed any homework or exam input . Since beginning this course I believe my interest has peaked and I enjoy the learning outside of college hours. I wake each morning and look positively at the day ahead and the learning that will be done. -	I am the middle child of 7 from a farming background . I never needed for anything growing up but always understood the value of things . I am a believer in FAIRNESS . I have a positive outlook and believe that doing good things will come back around to you . I dislike anyone who walks over another person to promote themselves . Before I began this course, I would have been happy to go along with the show in most things in life. I have found a big change in myself and my levels of assertion . I stand up for myself more and have gained in confidence . I will stand up for others and at times take the lead if it needs be. Stealing ideas within a group is something I have stood against in the past with a lecturer and I would again if I felt the need.	After leaving CIT I went to work in a hardware store and panelling centre. I worked my way up to kitchen designer and found that I liked to design around people and their needs . That led me to the course. My farming background is a big factor too and a sense of place for architecture . I believe the simplest answer is probably the best and that every space needs to function properly . I don't have any urge to build or design a skyscraper but instead create architecture that allows everyday ordinary spaces work best for the people that occupy them .	These values lead me to think in and find very distinctive patterns . I have aesthetics that I am drawn to. The context of the site and the function of the client needs would be my 2 main influences and this I feel is drawn from my beliefs and upbringing.	I am (to my detriment at times) a person who thrives under pressure and works better with a deadline . I do think and consider layout of boards but can be slow to put pen to paper. I try to fix a lot of design problems in my head rather than paper at times. Some of this is down to the fact I have always been better at getting my point across in oral presentations or interviews . They are part of the process that I enjoy. I also enjoy model making and feel I am improving at this aspect. I don't think I am the best at sketching but can do enough to get my point across. I like to work with hand sketches and drawings for early design and to make key decisions but I enjoy the virtual and feel it is key for detail and having things correct. I tend to layout all 2D work in this environment and other print finishes .	There was initial fear and trepidation but that has evaporated and I now enjoy the process. I think small reviews that even the work is not correct still enhance end design. Formal reviews I enjoy most as it is a chance to really explain something I have worked hard on . At times, I think lecturers could not be as set against some of the issues in a design until it is fully explained but I do appreciate even negative feedback as I know it is not personal. I can remain detached.	no comment added

Figure 21: Questionnaire ASPQ3 Response

ANALYSIS		Additional facts							
Analytic comment	<p>Notes to self ASP3 is motivated by interest in a subject. If he is not interested, he does not apply himself. Does not embrace all the tools he is being taught in terms of precedent study task for instance – does a lot of his reflection in his head does not journal or make notes so danger is he forgets and misses out aspects in his learning and presenting.</p> <p>ASP3 is a mature student in the sense that he started a different programme of study that was not the right direction for him, worked as a kitchen designer and it is here that his interest in architecture blossomed.</p> <p>Journey metaphor Wrong direction... People and place oriented</p> <p>Time is money metaphor – value of things Interest has peaked Does not like people who push other people around</p> <p>Performance metaphor Thrives under pressure – needs a deadline</p> <p>is review as event a container – ontological metaphor p.31</p>	<p>tried other courses of study did not suit talents or temperament choose this course after working for a while</p>	<p>This student has to be interested – interest grabbed or loses interest and does not apply himself – active, kinetic learner – researches, critically evaluates the material but misses things because does find it hard to maintain focus cognitively?</p>	<p>fairness, positivity, reacts negatively to pushy overbearing people promoting themselves, assertive for self and others, honesty around ideas – yet this student took the sources and used them almost verbatim without crediting?</p>	<p>kitchen designer – designing around people and their needs prior work experience – farming background – sense of place/identity – function – that things work well critical – ordinary everyday spaces work well</p>	<p>fairness is key – background influences the aesthetics drawn to see above – farming background – functional everyday – rural</p>	<p>enjoys the pressure of working to deadlines, procrastinates around putting pen to paper – sorts it all out in his head and then articulating his thinking via talking – enjoys the dialogue/interaction (verbal) – also enjoys making process – uses a wide range of multimodal resources to express learning and thinking</p>	<p>detachment metaphor – as a way of managing fear and trepidation – likes explaining work – performance oriented</p>	
			<p>Learner attributes ASP3 is an active, kinetic learner. Motivated by interest in subject. Not interested does not study. Enjoys interaction – with peers and tutors. Mentions his interest has peaked since he joined the architectural programme looks forward to each day – possibly the active nature of the design studio environment is ideal for this student's development – active, kinetic nature</p>	<p>Personal values Comes from a rural farming background and all his needs were catered for but he was taught the value of things. Emphasises the importance of fairness and fair play while commenting on his personal values. Believes in treating people with respect and behaving positively – does not like people who push other people around – He has become more assertive and confident as a result of being on this programme and probably this links with having to defend his decision making. Not afraid to lead. Honesty is also a core value as he has condemned stealing others ideas in the past (in a design context)</p> <p>Interaction core value</p>	<p>Architectural values Designing for people's needs is a core architectural value arising out of his rural and farming background – respect for landscape and animals possibly implicit in this statement and maybe not wasting valuable resources. Also, his family background underpins his respect for 'place' in architectural terms, a main focus in the architectural programme at the research site with is regionally oriented. States he is not motivated by creating large scale architecture more interested in dealing with everyday ordinary spaces and designing them so that they work for and serve their users effectively</p>	<p>Impact of both set of values on architectural studies The key thing for ASP3 is he believes his background and core values shape his response as a designer in a distinctive way – talks about thinking in distinctive patterns, and how his response to the site and client needs is underpinned by his personal background – beliefs and upbringing (on a farm)</p>	<p>Process Thrives under pressure and works better when working to a deadline How his design outputs are laid out and how his design and review space are organised are important to ASP3 Sorts many things out in his head rather than committing them to paper and he states this is because his past experiences suggest he gets his point across most strongly verbally in presentations or similar events. Likes making things – modelling, but has concerns about his sketching skills. Uses sketches in the early stages of the designing process to make his key decisions – but also enjoys the digital environment and appreciates its ability to deal with the technical and measurement aspects accurately From his assessment of himself it would appear ASP3 believes he has developed a set of well-rounded skills and attributes as a designer – some originating in his personal circumstances and others he is developing on the programme</p>	<p>Perspective on the review events – formal and informal Admits in the beginning there was some fear and trepidation – but now he enjoys the crit process, particularly formal reviews. Gives him the opportunity to showcase his work Striving to remain detached from negative comment and respond positively</p>	

Figure 22: Questionnaire ASPQ3 Analysis

QUESTIONNAIRE												
PART A				PART B								
Factual Information				Values and Beliefs								
	A1	A2	A3	B1	B2	B3	B4	B5	B6	ADDITIONAL COMMENTS		
				Learning Style	values - life	values - architectural	impact of life and architectural values on architectural studies - is this about agency	info about preparation for reviews generally	general info about perceptions of review process experiences over time			
	in what year were you born?	What is your nationality?	Notes Please provide any additional factual information about your background you think may have a bearing on your approach to your architectural studies in this box:	Describe yourself as a learner in as much detail as possible	Tell me about the values that are most important to you in your life generally (for example, how people should behave towards one another)	Tell me about the architectural values that underpin your architectural work (for example, what kind of designer are you?)	Describe the ways you think both sets of values (life and architectural) inform and influence how you go about your studies as an architectural student	Outline in as much detail as you can how you prepare for the review process in design studio (e.g. the decision making around, and construction of, your representation materials including 2D and 3D artefacts)	Tell me about your review process experiences during your time here as an architectural student (e.g. the things you enjoy, the positives, the negatives, the impact of the feedback from your peers and tutors on your understanding)			
ASPQ4	41	1976	Originally Syrian I came from completely different culture, background and architectural view than Ireland. The weather made a huge effect on my opinion and decisions that I make in my designs I think. Language barriers make a big impact on my study and expressing my ideas. When I was young my thinking about architecture was about 'human needs' and make, not about beauty and art. And I am still struggling with the interior design part and details.	I am a happy learner. I main like to learn, I enjoy being a student more than working. I like to learn about everything and anything, and I am well able to learn but slowly. I need my time to absorb information, and I have very bad memory, so I have to read and learn again and again to be able to use the information I have. I think that my brain is more mathematical than theoretical. I can solve complex problems in maths but struggle with philosophy. I think teaching is most difficult thing to do maybe because I can't express my ideas even if I find it easy to understand.	The most important value for me is to try make other people happy and not to hurt their feelings as much as we can. Treat others the way we want to be treated. Try to make my life happy by take things easy. Learning is a big value in my life, I always wanted to be qualified, and I am trying to pass this to my children and I wish doing this course at this will help as well. Respect others "methodology, ideas, background, religion, abilities and beliefs" is very important and I think this was the main reason that push me to leave my country where people used to live with 'similar' and don't accept different "like me". Love is big value, and I think the minute that we remember to love ourselves, others, creatures, environment, and the God that creates everything this world will be the best place to live in.	I think I am a practical designer, the most important thing to me is to make the structure in the best performance for users, and functional. I do like to work in contrast with context most of the time as a way to make a stamp or make something different. I can't read other architect's work easily and I think this side is my weakness that I working on it by reading more books. I don't have enough knowledge about architecture styles as well.	I think connection between values of life and architecture is different from time to time and from place to another. What is too much in some place might be nothing to another. The right life values should be 'right' everywhere, but it can be blurred in some places over time. Sometimes it's very difficult to use those values in some place on specific time. They will mean nothing. But I still believe that you need a good value in life to make a good architecture, and good values in architecture make life better.	Sometimes we will have a specific requirement to prepare for the review or presentation so I try to follow that. Otherwise I try to use multimedia. I make a model, plans and sections, sketches, photos and text. My weakness is to use diagrams so I do very little of them. I find myself able to talk about the work more than using the other tools. I struggle with minimising my ideas, maybe because of the language. I like to put all the information on one page portrait or landscape, it doesn't matter. But sometimes I squish them together to fit on one page.	-I like presentation time, because I like talking about my ideas, design and information that I learned "unless I am not well prepared". -I listen to the review from my tutors and have no problem with negative comment, but if I think that the comment came from misunderstanding me for any reason, or it's just a personal opinion, I can stand up for my idea and try to prove it. I will go research and experiment more to do that. I like to hear the positive comment as well like everybody and if I keep hearing just negatives all the time I will lose my passion for work. I will lose all interest to finish the work. Some tutors give negative comments in very constructive way so I don't feel it as a fight. Others' can be very mean "trying to push hard" but I think this way doesn't suit me. It might suit others though.	I would really thank you. I know I am not the best in Theory It's like philosophy for me that need long time to understand and after that I find it difficult to explain what I understood but I do enjoy all the knowledge I gain in the class. You are very kind.		

Figure 23: Questionnaire ASPQ4 Response

ANALYSIS		Additional facts							
Analytic comment	<p>Notes to self Not only is English not her first language ASP4 comes from a completely different culture (she is Syrian) and climate. Her architectural views are underpinned by her prior living experiences and she emphasises the need to address human needs rather than focus on aesthetics</p> <p>Journey metaphor –</p> <p>War/conflict metaphor</p> <p>Language barriers</p> <p>Human needs – survival not aesthetics</p> <p>Has experienced hostility towards those who do not conform</p> <p>Love versus hate</p> <p>Performer</p>	<p>Different cultural background - utterly different architectural views, manifestation - ways of making, materials etc. - language barrier stops expression of ideas, negatively affects studies</p>	<p>Cannot overemphasise how important it is to take the fact that English is not this student's first language into account - expressing in a sense that caught between two stools - terminology and differences in culture around architecture and its manifestations big problem - it is all new - increases the amount of time needed to absorb and address tasks and learning from tasks - even though highlights bad memory - relies on memory in crit situation - no scribe</p>	<p>not hurting peoples' feelings, respect, be relaxed, values education and qualifications - way to better self and provide better life for children (refugee), respect - others values, religion, ability, differences (why left own country perceived viewed as different), love self, others, planet, God...</p>	<p>practical design that works well- performance critical plus function - work in contrast to context - to make a stamp/something different - need to stand out - lack of confidence around architectural knowledge</p>	<p>here identifying the conflicts that arise between personal values and dealing with reality in different contexts architecturally (coming from life experiences and difficulties) - coming from a background where conflict is commonplace - still identifies good personal values need to underpin architecture</p>	<p>works to the brief/requirements - enjoys making and formal drawing but freehand sketching more of a problem especially analytical diagrams - hard to edit ideas because of language issue</p>	<p>performance oriented - prior life experiences - confrontational/war metaphor here - stand up for my ideas and try to prove it - experiment metaphor - construction metaphor - fight - war metaphor at play here</p>	
		<p>Perceives her language issues as a barrier to expressing her ideas, and affecting her studies negatively</p> <p>When she was younger believed architecture about addressing human needs not about beauty or art</p>	<p>Learner attributes ASP4 loves learning – appears to indicate the path to freedom (implicit in what she says) Feels she is more mathematical than philosophically oriented – struggles with ideology – possibly because much of this kind knowledge expressed textually, even in an architectural context – language barrier Needs to read and reread to take things in – possibly also linked to language barrier</p>	<p>Personal values Striving to make a better life for her children Make people happy and treat others the way you would like to be treated Not taking life too seriously Values learning and qualifications – better her circumstances as a professional as a perception and wants to hand this value on to her children Has possibly experienced hostility within her own culture because she does not conform with traditional values – tolerance important Love is a core value Has a spiritual take on life</p>	<p>Architectural values Practical designer – focuses on providing best structure and function in terms of performance Prefers working in contrast with context because she likes to her architecture to make a statement Expresses the view she finds it difficult to 'read' other architects work – addressing this by reading – theoretically Perception does not know enough about architectural styles</p>	<p>Impact of both set of values on architectural studies Essentially here ASP4 is talking about reality of dealing with the circumstances of life in areas where there is conflict – changes perspective about what is important and what is not – also believes values differ place to place and sometimes can appear to be subsumed (in conflict?) – still hopes – about improving life's circumstances</p>	<p>Process Looks to the brief for guidance around the use of multimodal resources – if there is no prescriptive advice uses a range of media – making models, plans, sections, sketches, photos and text Perception skill level around diagramming is weak – however the literature indicates the only way to improve is practice not avoid Likes talking as a way of explaining her ideas and work even with the language barrier Details person so needs to simplify her ideas – squishes it all on – not sure what to leave out?</p>	<p>Perspective on the review events – formal and informal Enjoys presentations – likes talking about her ideas, designs unless she is not well prepared (prior experiences as a performer impacting here?) Has no problem with negative constructive comment provided it is evidence based and not what she perceives to be opinion based Stands up for her ideas – but sometimes feels lecturers are more knowledgeable than she is Needs positive reinforcement to remain motivated Being pushed negatively does not spur her on in the same way as positive reinforcement</p>	

Figure 24: Questionnaire ASPQ4 Analysis

QUESTIONNAIRE												
PART A					PART B							
Factual Information					Values and Beliefs							
	A1	A2	A3		B1	B2	B3	B4	B5	B6	ADDITIONAL COMMENTS	
					Learning Style	values - life	values - architectural	impact of life and architectural values on architectural studies - is this about agency	info about preparation for reviews generally	general info about perceptions of review process experiences over time		
	In what year were you born?	What is your nationality?	Notes Please provide any additional factual information about your background you think may have a bearing on your approach to your architectural studies in this box:		Describe yourself as a learner in as much detail as possible	Tell me about the values that are most important to you in your life generally (for example, how people should behave towards one another)	Tell me about the architectural values that underpin your architectural work (for example, what kind of designer are you?)	Describe the ways you think both sets of values (life and architectural) inform and influence how you go about your studies as an architectural student	Outline in as much detail as you can how you prepare for the review process in design studio (e.g. the decision making around, and construction of, your representation materials including 2D and 3D artefacts)	Tell me about your review process experiences during your time here as an architectural student (e.g. the things you enjoy, the positives, the negatives, the impact of the feedback from your peers and tutors on your understanding)		
ASPQ5	24	1993	Irish	Hi RM. I apologise if any of the words are spelt wrong in my writing or if I have misunderstood any of them and if there is anything you are unsure about feel free to ask me it's just that I have dyslexia .	I would describe myself as a learner that for starting a project would research and get background information about the site or area in which the project is sited to get a feeling for the place. Then I would go on to find precedents that would be similar to the project or design I'm constructing- analysing them in various ways while doing an analysis for the site and by doing this research it helps to inspire me as a learner to start designing. After starting designing I start to make models, plans, and sections of layouts which help me see my design both 2D and 3D formats where I can test materials, light colour, etc.	During my studies as an architectural student I want people to trust me, rely on me in group work as I would describe myself as a trustworthy person, reliable person, creative person . I attend college every day participating in both individual and group projects . I also would describe my values as in my life generally as helpful both in and out of college toward others and I would like others to treat me in the same manner . I also work to my highest standard in life to achieve the best I can.	As an architectural student, I am a designer that learns best through diagrams, plans, section and models as I spoke about earlier . I use these methods as they both help analyse my work and other work (precedents) using the architectural framework. I use plans and section, diagrams including arrow, small text to describe what is important that I have taken from the image or diagram. By using this method following the architectural framework it helps me to deconstruct my work and other work that I have evaluated and analysed. I also build 3D models which best help me to see my design including material, colour, light, circulation, space and form and the scale of the space.	no response here	In getting prepared for the review process in design studio I make a list of work that needs to be completed for that day and a timetable schedule of the work to make sure I get everything the lecturers requires done . I also plan out what and where the work is going to fit on the board and how it must follow a structure in the way I am going to talk about . I then go on to write a dialogue (much of his dialogue in his review taken directly and verbatim from data sources) of what I am going to talk about in the review and how to explain it to the lecturers that never see the project in process	In my experience of previous reviews during my review I get somebody to take notes on my feedback from my tutors and peers and I would also take notes for them during their crit. I get others to take notes for me as I tend not to be able to remember everything that is said to me during my crit. I then am able to go away and respond to their feedback whether it would be design changes or presentation feedback and fix it for the final year exhibition or after Christmas when our two reviews take place.	After my review process after a hard crit I tend to feel run down for a day but tend to get back into the college work after a day or so, but after a good crit I tend to keep at the college work responding to my feedback immediately. I generally tend to have looked at stuff in different ways than the tutors wanted me to look at when I have a hard crit (going off track)	

Figure 25: Questionnaire ASPQ5 Response

ANALYSIS		Additional facts							
Analytic comment	<p>Notes to self This student is dyslexic and as a result has a problem with processing literal and verbal language.</p> <p>During the observation, in his review, I got a sense that sometimes ASP5 might see the task (researching, or making drawings or models) as encompassing the whole learning rather than a process that underpins learning that needs to be applied architecturally. Architectural learning is multi-layered and complex – learning the 'designing process' and 'how to draw to represent and communicate one's ideas is a fundamental prerequisite for designing but is not designing – which involves a process of mental and visual reasoning that is expressed externally via the designing process using a range of communicative resources – link to Bezemer and Kress, 2016 – Multimodality literature – chapter 3. Does ASP5 fully appreciate this</p> <p>Performance metaphor – highest standards</p> <p>Journey metaphor – Step by step Sequential Plans each step – works towards accomplishing each step</p> <p>The main focus in ASP5s response to this questionnaire has been to emphasise his process rather than address the questions directly – this may be because he misunderstood the questions or did not comprehend them fully</p>	<p>lack of confidence around most things because of dyslexia - anxious to please</p>	<p>describing himself here as a sequential step by step learner - relies on and uses visual means to assist in the designing/learning process - does testing physically - is this true though?</p>	<p>trust, reliability, equates working hard with success, helpful,</p>	<p>visual learner - states descriptive and is descriptive - again issue around the difference between description and analysis not sure this asp understands what he is talking about - thinks that following the recipe guarantees a good cake - unfortunately this is not the case</p>	<p>lack of synthesising here? - this asp finds it hard to express these kinds of ideas and or thinking- yet has a set of strong core respectful and caring personal values - underpins behaviour architecturally - emphasises, trust, reliability, helpfulness, working within a team carefully and mindfully - all will work out then</p>	<p>list of work, plan, schedule structures work, goes about it in a series of steps</p>	<p>focus is on managing and getting help from peers - collaborative metaphor - we are all in this together - group mentality</p>	<p>talking about motivation here - good crit motivated - bad crit demotivated - also about the way he reacts to criticism - hard to handle</p>
		<p>Anxious to please – this appears to dominate his learning responses</p>	<p>Learner attributes ASP5 states that he starts the learning process for any task by researching into the topic and looking for background information about the task. In an architectural context, this means he gathers information about the site or location in which the project is sited. His next step is to search for precedents and then analyse them while analysing the site at the same time. ASP5 is outlining that he is a sequential learner here and he indicates that the process of the research and precedent analysis itself is motivating for him as a designer. He speaks about the next step as being a process of making – models, plans, etc. to help test his design ideas. He states he is a visual learner</p>	<p>Personal values ASP5s core values are related to trust, in an individual and group context, being reliable and creative. Working hard as a way of succeeding. Being helpful to others Being treated in a similar fashion by others Doing his best – giving it his all Like his colleagues ASP5 highlights for the need for everyone to treat everyone else with respect – way they would like to be treated- possibly this relates to the perceived negativity around feedback as well as being regarded as an underpinning personal and professional value – link to the literature</p>	<p>Architectural values Does not address the question directly – rather outlines the steps he goes through in the learning process – really talking about his process here which is sequential and methodical</p>	<p>Impact of both set of values on architectural studies Does not respond to this question – possibly did not understand this or the previous question fully</p>	<p>Process It is clear from his responses to other questions ASP5 views himself as a visual and sequential learner as he sets out the steps he goes through 'step by step'. Also, indicating he creates a list of 'to do' work and creates a timetable for that work as a way of planning how he will address the task in hand – structured response which relates to what he will talk about while explaining his learning</p>	<p>Perspective on the review events – formal and informal Again, ASP5 does not address the question directly – possibly as a result of misunderstanding – reading is an issue – comprehension – dyslexia. He sets out the steps he goes through re the feedback process rather than talking about the review event personally which he addresses in the next section – additional comments</p>	<p>ASP5 indicates here that he realises his feedback often points to the fact he has misinterpreted the task in terms of 'what the tutors wanted!' Negative feedback affects him adversely physically and emotionally and demotivates whereas positive comment motivates him to work harder. Still perseveres though in the face of negative comment – is the above indicative of a primary goal of his work to 'do' what the tutors 'want' rather than to develop himself for himself? – is taking responsibility for his own learning fearful? Anxious to please – this appears to dominate his learning responses</p>

Figure 26: Questionnaire ASPQ5 Analysis

QUESTIONNAIRE												
PART A					PART B							
Factual Information					Values and Beliefs							
		A1	A2	A3		B1	B2	B3	B4	B5	B6	ADDITIONAL COMMENTS
						Learning Style	values - life	values - architectural	impact of life and architectural values on architectural studies - is this about agency	info about preparation for reviews generally	general info about perceptions of review process experiences over time	
		In what year were you born?	What is your nationality?	Notes Please provide any additional factual information about your background you think may have a bearing on your approach to your architectural studies in this box:		Describe yourself as a learner in as much detail as possible	Tell me about the values that are most important to you in your life generally (for example, how people should behave towards one another)	Tell me about the architectural values that underpin your architectural work (for example, what kind of designer are you?)	Describe the ways you think both sets of values (life and architectural) inform and influence how you go about your studies as an architectural student	Outline in as much detail as you can how you prepare for the review process in design studio (e.g. the decision making around, and construction of, your representation materials including 2D and 3D artefacts)	Tell me about your review process experiences during your time here as an architectural student (e.g. the things you enjoy, the positives, the negatives, the impact of the feedback from your peers and tutors on your understanding)	
ASPQ6	62	1955	Irish	Number of schools attended. My education started in Ireland. After six months went to England, changed school three times there and returned to Ireland to a school that was due to close the year I finished. Discrimination. Different education systems. Bullying (by teachers and pupils). No attempt to help		Review event - the comments seem to be negative focused and often directly contradict information of lecturer. The focus is often on what is mostly the weakest component of the presentation for example: What size is the space? How wide is it? How long is it? I didn't look at areas as part of the study why question 2 and 3.	Positive, polite, helpful, information. Personal information should be given personally not to class. As I have gotten older I have begun to appreciate life itself more. The privilege of living in and being part of a society is very important. The belief that I can do something to make life better for others whether in what I do or how I do it. The family is extremely important to me. First, my family, second, extended relations, third, community, local people and fourth people to come. What we leave behind says a lot about us.	I believe that all spaces should function for the current user whoever they are. Buildings should blend into their surroundings, stand up, but not out. They should look as if they fit the space both in proportion and scale. There is as much beauty in a well-constructed row of terrace of houses as there is in any of the paintings by people like Constable.	I tend to get a lot of my information from the internet by computer. As I have issues reading I feel I interpret this information a bit better. I feel that I can read and understand a picture better than text and often listen to presentations by architects on my laptop to help my understanding of what they are trying to achieve. I have spent forty odd years looking at and redesigning spaces for people and feel it matters little what you want someone to do in a space or how you believe they should use a space as most people like to personalise the space for themselves (I call this nesting). It is as important to design in the opportunity to do this as it is to design a well-functioning space.	When driving or just sitting I spend time considering what I might say and try to build up a group of points to hit. Usually I forget some or miss an important one. When looking at what I put on the wall it is as much as possible for what the brief says for that day, I will look at what I am working on and how it can represent the idea I want to get across, if I understand it then I can answer questions on it. I don't have a neat hand so models don't come easy and my patience to make them is very small with no positive feedback on models I feel I am shovelling water up a hill.	My memories of review stem from the nit picking of a weak point, the preconceived idea of the lecturer (it becomes obvious that the lecturer wants you to design a particular thing using a particular strategy). The self-expression or personal idea is started, stopped, twisted, and manipulated to their personal idea or interpretation of your idea. The feedback gives clear guidance as to where you should go and what you have to do to get there. I often think about the film "Educating Rita" and how at the end she could debate with the other students. But she could not see what she had lost in self-expression. Positives - I have learned to discuss and can justify my ideas to a greater or lesser extent while taking on board feedback no matter how negative as a positive building block.	No comment added

Figure 27: Questionnaire ASPQ6 Response

ANALYSIS		Additional facts								
Analytic comment	<p>Notes to self As a much older student – ASP6s earlier life and educational experiences which he perceives negatively, have had a profound impact on his perception of his architectural studies – focuses in on the negative – expectation around the negative – negative thinking- expects the worst He lived in the UK during the 1950s a time of recession in Ireland and UK and at a time when being Irish was possibly not a positive experience in England</p> <p>ASP6 indicates he finds it easier to operate in the digital environment – particularly with respect to reading – the screen as a controlling mechanism allows him to look at small amounts of text – at a larger scale – easier to process the text in this way</p> <p>Also, his experiences indicate to him that he finds it is easier for him to 'read' visual communications and or listen to talking as communications rather than deal with written texts – need to link this to the literature – Bezemer and Kress, 2016 – gains associated with digital environment versus losses</p> <p>Building/constructing metaphor Positive building block Weakest component</p> <p>Argument as War metaphor? stunted, stopped, twisted, and manipulated</p>	<p>educated in Ireland and the UK - experienced discrimination and bullying - negative outlook</p> <p>There has been much change of abode and educational experience in ASP6s background – indicates he experienced discrimination, bullying and lack of help around his learning issues</p>		<p>negative attitude to learning environment and hearing only the negative linked to this student's prior learning experiences and learning difficulties - older student so early learning experiences in environment where not so much known about his learning difficulties and students often treated negatively - framed gut response?</p> <p>Learner attributes ASP6 does not answer the question directly. It is clear from his responses that he focuses on and tends to 'hear' the negative comment – is this because of his prior learning experiences which he indicates were negative – discrimination, bullying, not being helped with his learning difficulties as a dyslexic student learning at a time this learning difficulty not recognised or dealt with positively? Is there an expectation of no help?</p>	<p>positive (actually though negative thinking in most things), helpful, politeness, respect for privacy, help others, family, community, leaving a positive legacy</p> <p>Personal values ASP6 sets out a set of core personal values that are opposite to those he perceives in the learning environment – positivity, helpfulness, impersonal comment - respect. As an older learner – appreciating the pluses of living in our society improving life for others Family is really important including extended family, and then his community and the next generation Again, respect for others and being treated respectfully is highlighted</p>	<p>functionality key, blended into surroundings architecture - like asp3 this student comes from a farming as well as building background - beauty of everyday artefact - eschews the pretentious</p> <p>Architectural values Core architectural values have to do with function re the user – spaces should work well Working in empathy with context rather than contrast – stand up, but not out Architecture should be composed – proportion and scale and well-constructed Believes in the beauty of the everyday well-crafted architectural object versus 'art'</p>	<p>digital environment is easier for this student to handle not as much text all at once - however misinterpreted the question - relies on personal experiences - working as developer/builder - flexibility and allowing the client personalise because they will anyway - issue here around agency</p> <p>Impact of both set of values on architectural studies ASP6 does not answer the question directly. Rather he focuses in on his learning processes and his reliance on the digital environment. This student comes from a building, developing and farming background – affects his approach to learning and making architecture – personal experiences around designing and building spaces for others indicate they have a need to personalise the space regardless of designers' views (negative) – believes designers should build in this opportunity for the end user – core value as designer?</p>	<p>This student also sorts it all out in his head and composes points and arguments in his head - because of dyslexia not happy in the textual environment</p> <p>Process Processes problems mentally while he is doing everyday other things – like driving – rather than teasing them out in notes for instance Constructs responses in his head – realises misses important points as a result – as he has no permanent record other than relying on his memory His response to task related directly to the brief – what if he misinterprets the brief? Usually expressed literally and visually Although he has been involved in building all his adult life – ASP6 does not find architectural model making easy (is this to do with the fact he does not always use his glasses and so cannot see the finer detail?) – becomes frustrated and impatient</p>	<p>nit picking - negative - strong language - stunted, stopped, twisted - distorted growth metaphor – justification - confrontational</p> <p>Perspective on the review events – formal and informal Focuses in on the negative – uses strong language – does this indicate strong negative feelings about the event generally and personally? Has a perception he is being forced to take on board the tutors personal vision with respect to architecture – own self-expression stunted, stopped, twisted, manipulated Still sees himself as being able to justify his own ideas while taking negative comments on board</p>	

Figure 28: Questionnaire ASPQ6 Analysis

QUESTIONNAIRE												
PART A					PART B							
Factual Information					Values and Beliefs							
	A1	A2	A3		B1	B2	B3	B4	B5	B6		
					Learning Style	values - life	values - architectural	impact of life and architectural values on architectural studies - is this about agency	info about preparation for reviews generally	general info about perceptions of review process experiences over time	ADDITIONAL COMMENTS	
	in what year were you born?	What is your nationality?	Notes Please provide any additional factual information about your background you think may have a bearing on your approach to your architectural studies in this box:		Describe yourself as a learner in as much detail as possible	Tell me about the values that are most important to you in your life generally (for example, how people should behave towards one another)	Tell me about the architectural values that underpin your architectural work (for example, what kind of designer are you?)	Describe the ways you think both sets of values (life and architectural) inform and influence how you go about your studies as an architectural student	Outline in as much detail as you can how you prepare for the review process in design studio (e.g. the decision making around, and construction of, your representation materials including 2D and 3D artefacts)	Tell me about your review process experiences during your time here as an architectural student (e.g. the things you enjoy, the positives, the negatives, the impact of the feedback from your peers and tutors on your understanding)		
ASPQ7	48	1969	Irish	I lived abroad for 11 years having left home when I was 17 years old. This I feel has made me very independent -	My best learning, I think, comes from imagery and discussing a topic with a group, where I find I cannot hold back on giving my view (if the topic has my attention)	I believe in people young and old to have good respect for one and other as seen in a family home with grand kids and grandparents. A respect is built	Minimum: Less is more. I don't feel the need to overkill a space with too much information. good craftsmanship is important to me, good work takes time, not to be rushed is important, yet not to be milked (too slow)	As a mature student, I feel sometimes out of my depth when it comes to getting things down on paper, my best strength I feel is my voice, as I do draw on my experiences in life to date. I would have a lot of building experience.	I struggle a lot getting my ideas onto paper but am starting to get a handle on the different types of computer software that will hopefully help with what I present. My writing and spelling and drawing has always been poor and for me, been embarrassing. But improving	At 46 I thought my school days were over. But when I was given the opportunity to study architecture I jumped at it, as I have worked in the building trade for nearly 30 years. And I'm now learning about the buildings and the reasons for the many decisions that need to be made	No comment added	

ANALYSIS																					
Analytic comment		Additional facts																			
<p>Notes to self Like ASP6 ASP7 is an older student who comes from a building background. Additionally, his role in the building industry is linked to his carpentry skills. ASP7 suffered a neck injury during the precedent study task associated with the review event; and so, he did not complete the task fully or comprehensively. Relies on his past life experiences to drive his response to his learning</p>		<p>mature student from a building background - states independent - in learning environment - cognitive - lot of fear does not engage or take feedback relies on past experiences</p>		<p>this student does not appear to like engaging cognitively - relying on prior life experiences and using what he picks up from students during verbal dialogue - fear factor at play here? great difficulty in engaging with tasks and hearing and reacting to and responding to feedback?</p>			<p>respect, family</p>			<p>craftsmanship key - prior learning - practical - making - this student excels in the vertical projects in which there is always making often at a 1:1 scale - this could be the key to unlocking this student's potential</p>			<p>realises the difficulties he has cognitively - out of his depth - still relies on talking and prior life/working experiences, and whilst maybe perceived strength problem if no substance which often there isn't because does not engage with the task - fear won't try? Fear of failure - again agency issue - easier to not try and make excuses than try and fail?</p>			<p>seems to think the digital environment is going to sort out his weaknesses with formal drawing and sketching - but it will not do the work or help him develop his visual and cognitive reasoning capacity</p> <p>Does not outline a set of steps/protocol that he uses - has not internalised the procedures he has been taught?</p>			<p>not answering the question asked here - more about the opportunity - jumped at it -</p>		
<p>in the architectural environment and his literacy issues means he has a fear of expressing himself literally and so focuses on talking as the main means of expressing his thinking. However, during the interview process and while presenting ASP7 does not talk discursively ASP7 also lived abroad and worked outside Ireland Life is a struggle metaphor Out of his depth Overkill Milked Struggle opportunity Jumped at it</p>				<p>Learner attributes ASP7 sees himself as a socially interactive and visual learner who learns from imagery and discussion</p>			<p>Personal values Core values - respect for and between people and family life as the origins of this attribute</p>			<p>Architectural values Less is more is a core architectural value along with emphasis on good craftsmanship and taking the time to do something well (does this come from his carpentry background?)</p>			<p>Impact of both set of values on architectural studies Does not answer the question directly - highlights the fact he feels out of his depth in terms of expressing himself on paper - perceives that talking is a strength as is drawing on his life experiences, particularly his building experiences, in the architectural context.</p>			<p>Process Expressing himself literally is hard for ASP7 - appears to believe building skill at working in the digital environment is a way of dealing with this issue</p>			<p>Perspective on the review events - formal and informal Does not answer the question Sees architectural education as an opportunity to consolidate validate his building experiences in a professional way</p>		

Figure 29: Questionnaire ASPQ7 Response and Analysis

QUESTIONNAIRE												
PART A				PART B								
Factual Information				Values and Beliefs								
		A1	A2	A3		B1	B2	B3	B4	B5	B6	ADDITIONAL COMMENTS
						Learning Style	values - life	values - architectural	impact of life and architectural values on architectural studies - is this about agency	info about preparation for reviews generally	general info about perceptions of review process experiences over time	
		In what year were you born?	What is your nationality?	Notes Please provide any additional factual information about your background you think may have a bearing on your approach to your architectural studies in this box:		Describe yourself as a learner in as much detail as possible	Tell me about the values that are most important to you in your life generally (for example, how people should behave towards one another)	Tell me about the architectural values that underpin your architectural work (for example, what kind of designer are you?)	Describe the ways you think both sets of values (life and architectural) inform and influence how you go about your studies as an architectural student	Outline in as much detail as you can how you prepare for the review process in design studio (e.g. the decision making around, and construction of, your representation materials including 2D and 3D artefacts)	Tell me about your review process experiences during your time here as an architectural student (e.g. the things you enjoy, the positives, the negatives, the impact of the feedback from your peers and tutors on your understanding)	
ASPQ8	36	1981	Lithuanian	No comment added		I am trying all my best in the study process . I like this course, but it's very tough course , sometimes, I need more time to do some things (to understand and to do). I am very picky person . I am trying to do everything right . I don't like to do mistakes. I always want to be ready for presentation. I don't like that I can't manage my time and I am not fully ready for studies . I am feeling that I always need more time for everything , if I am feeling that I am slow, and other thing I am trying to do everything perfect, and because of this sometimes I can't manage to do everything and just half done of work . I always feeling disappointed when I am trying to do something, but it's not going right. -	At the minute for me is very important studies because I want to do work, what I will be enjoying in the future . I know is very tough course and specialty, but I like create things . I know I have to learn lots of things, but I am enjoying , and I think this is the most important. I already have education from Lithuania (business management and administration), but I did this because it was very popular in that time and I couldn't afford to do architecture course, because it was very expensive . So, then I will finish this course, it will be my second Level 8 (honours degree). And when I am working in (name of store in research location) already ten years, I really understand that I want changes in my life, finally to do something what I really will be enjoying . Of course, my Mum is the most important in my life, specially, now when we have tough life after Dad past away. The most important people are my Mum and my boyfriend. But all these things makes you go forward, and to understand, that life is too short...	I think, I am not sure, but I am maximalist, too much overthinking and that what makes for me very hard. Like I said I am slow person , of course and my language barrier make for me more difficult everything . I know I need more to learn how deconstruct, analyse, evaluate and etc. I need more reading to understand things, how to do everything, but I just can't manage everything . I am trying to do it, but it's taking lots of time because it's not my first language . So, it's making that I need to read couple times to understand, and to do all studio work and other subjects and work on the weekend, all this making very tough for me and sometimes I feel very tired and when I tired I can't manage to do anything and then I feel annoyed and angry on myself .	For me is hard/tough, that I can't manage time . Studies is in first place, because after everything I know, that this is my foundation for the future . Architecture is tough subject, lots of things you need understand, do lot of research. Everything is updating every single day . I know that studies is my biggest foundation, but I need to do more myself, but like I said, I need more time for everything, I can't do anything roughly. I always need to do everything perfect , what I think is my problem and I can't manage everything else.	I think reviews goes ok, if I am not tired, because when I am tired, my head not working and then I am confusing nearly crying and then everything goes wrong. For reviews, I am trying to do as much as possible, what is required in that time . I know that I have lots of minus, first language , it sometimes is very hard to express myself. I need to practice more of the analytical drawings/diagrams; perspective drawings (I never did them before, so it's hard for me to draw it); to evaluate; theory understanding. With designing I think I am ok, or model making, and with materials, I think I still need to improve myself in Photoshop, Revit, because I need more skills how to do perfect presentation , because I feel I am not qualified for it. I really was jealous of the presentation of the last year 4th years. I remember how they were presenting their works, how professional it was, high quality presentations and models. What it makes me understand that I need lots of improvements on my skills.	I think all reviews are good, because it gives you feedback and then you can develop your design and improve your skills . I think all them reviews are good part of studies, if we won't have them we will stop from development. I just don't like talk, not always, but it depends on the review, of course if it's all lecturers (the whole course team), I feel nervous (formal end of term reviews), because you understand that you talking with professionals . And sometimes I am afraid not to be right and that I need more knowledge . I know we are just studying and we are learning, but all presentations make you stress.	No comment added

Figure 30: Questionnaire ASPQ8 Response

ANALYSIS		Additional facts							
Analytic comment	<p>Notes to self This student's first language is not English - also like most of her colleagues this student has a job to support herself - this further limits time needed to absorb and process learning given circumstances - time allocated for each task - critical issue - coming up over and over again - so meaning-making seriously compromised if there is not enough time allocated to take into account all the various personal factors each of these students have as underlying features of themselves as learners - so are we taking the personal circumstances, learning characteristics and styles of our learners into account??</p> <p>Building/construction metaphor Language barrier</p>	to better oneself and change life circumstances driving this student		I think what is surfacing here is this mix of students have distinctive features as learners and I am not sure the programme is accommodating these effectively or moving to design the studio programme to take the need for extra time into account (for different reasons for each group of students) - reality struggling to manage the tasks in studio and other modules - this group now in fourth year and the problem has intensified - even more is expected of them now and it is their perception and factual - they have not reached the right skill levels - thinking and doing wise - fear, lack of confidence is a part of the reason for this to do with negative thinking, inability to and refusal to use or practice what they are being taught?	importance of education - link to doing something one enjoys/passionate about, addressing need to be creative, bettering self, providing for family, changing life for better	language barrier big issue, overthinks things, confidence to do with knowing enough, managing all the modules, work etc. big issue that is what this student is identifying with - surviving it all	as above focusing on difficulties not able to think about anything else - misinterprets question - having enough knowledge in a constantly changing environment - perfectionist/high expectations so not managing - not strategising - pressing the send button with adequate job - procrastinating	WORK LIFE BALANCE - It is all about managing pressures of work, life and study - language issue prevents clear expression of critical and reflective thinking which is going on - lack of confidence around most of the multimodal resources available and expected at this stage in the programme but concerned about improving - time issue also - time to learn new skills on own (prefers to be taught) and practice and address tasks in all components of programme including getting ready for crit	Building, construction development metaphor
	<p>Life is short metaphor Life is too short</p>		<p>Learner attributes ASPB is hard working, driven to better herself Has high expectations of herself as a graduate back in HE Passionate about doing something she enjoys and improves her situation ASPB is working hard outside and inside college Because she is working outside college to support herself, and English is not her first language her perception is she needs more time to do things, more time to learn and develop to meet her own high expectations. AS it stands does not believe she is managing her time effectively High expectations and feelings of disappointment when she does not reach or fulfil own expectations ASPB sees herself as a reflective, who over thinks things, is a details person, a perfectionist - gets angry with self when she does not live up to her own high expectations</p>	<p>Personal values Core values linked to doing something well that she enjoys Better herself - improve and change her life Be creative linked to developing and using ones' talents to provide for yourself and better yourself Life is too short metaphor for living because she has experienced loss?</p>	<p>Architectural values ASPB does not answer this question directly - talking about herself</p>	<p>Impact of both set of values on architectural studies Again, ASPB does not answer this question directly - talking about her personal experiences and beliefs about life generally Sees her architectural studies as a way of building a foundation for her future - to be able to express her creativity and do something she enjoys in an ever changing personal and work environment</p>	<p>Process Does not address the question directly focuses on the negatives that impact on her ability to go through the learning process effectively Tired all the time - working to provide for studies and then the programme is tough and labour intensive - does not do well if she is too tired Possibly like many of her colleagues, work life balance is out of kilter out of necessity - real problem that needs to be addressed academically and institutionally Working outside her studies limits the amount of time she can devote to "practicing" the different mental and visual reasoning tools - drawing - analogue and digital - she makes a connection between high levels of skill and operating as a professional</p>	<p>Perspective on the review events - formal and informal ASPB sees learning as a foundation for future development and a way to ensure she gets to do what she loves while providing for and bettering herself - possibly this impacts on the positive way she views the crit process Managing her emotions - gets nervous - surfaces because of her perception of herself as novice dealing with professionals particularly in the formal review context when practicing architects often contribute as well as the whole course team not just her tutors</p>	

Figure 31: Questionnaire ASPQ8 Analysis

Legend for transcription symbols

Transcription symbols taken from and based on:

Transcription guidelines FAAV. Retrieved 30th June 2016 from

http://fave.ling.upenn.edu/downloads/Transcription_guidelines_FAAV.pdf

and

VOICE transcription conventions. Retrieved 30th June 2016 from

https://www.univie.ac.at/voice/documents/VOICE_mark-up_conventions_v2-1.pdf

- Quotation marks for direct speech or thoughts within narrative "..."
- Disjointed, restarts or repetitious text = - -
- [explanation added by researcher]
- {anonymised names and or locations, as well as corrections for readability}
- Comma [,] for pauses and punctuation
- Double brackets for inaudible segments or guessed text ((inaudible/guessed))
- <interruptions of one person's speech by another – starting to and talking before previous speaker has finished>
- Question mark for rising intonation =?
- <Laughter and other sounds>
- CAPITAL LETTERS for emphasised speech

Figure 32: Interviews Legend

INTERVIEWS MATRICES ANALYSIS SUMMARY

THEMES	Question	Explanation	Analytic Memos	Topic 1: Design Ideas/thinking (Discourse)	Quotations
1A DISCOURSE	Frame for the interview guiding script taken from Kress (2010)		I am addressing my research questions - carrying out a mapping exercise - mapping the ASPs meaning making efforts in order to identify the roles and relationships of the multimodal resources they deploy in the meaning making process associated with the precedent study task and review event and the active nature of the meaning making Participant responses were transcribed for readability - thematic antecedent sets the scene for the review observation which is the core multimodal object of analysis		Highlighting, colour and bold font is my emphasis here related to what I heard in the interviews and 'read' during the constant comparative reading process (Thomas, 2016; Salander.....)
TREASURE HUNTING DESIGN THINKING IDENTIFYING AND UNDERSTANDING IDEOLOGY POSITION - TREASURE HUNTING AND RECOGNITION - in other people's work - identifying what is important thinking Discourse translated into architectural ideas/thinking The search is linked to the brief but there are problems with this as the brief is not prescriptive - merely contains key words and or terminology as clues - map for the treasure hunt linked to a list of reading and then assigned precedents	QUESTION 1 - IDEAS Please outline the key ideas you identified in the precedents you analysed or deconstructed during the precedent study task	This question is to do with identifying and understanding ideology informing the designers' position and approach to the architectural problem. In the brief, there were statements about what they needed to uncover generally about affordable housing - language clues placed throughout the text -sustainable etc. Also, it had to do with what they recognised to be important and relevant re what they were asked to do - hence code label - IDENTIFYING AND UNDERSTANDING IDEOLOGY POSITION - TREASURE HUNTING AND RECOGNITION	Researching is carried out mainly in the digital environment, although one or two participants visit the library periodically - in the digital environment they visit websites they have been alerted to, look for designer's webpages, pdf. articles about the architecture they are investigating and or online interviews. In a number of cases even though the ASP expressed difficulty finding detailed visual and textual information, I located this type of information with a simple google search - why is this happening? ASP1 captured material on the websites using a snip tool of some sort (including cut and paste). Then ASP1 superimposed (translated or transduced) a layer of analysis on top using a range of visual tools such as colour, lines, hatching, heavy lines etc. Like the other participants ASP1 did not cite the visuals individually rather gave a general citation to the website or article on her presentation sheets- also this participant in common with many of her colleagues did not necessarily find and or use all the available information. ASP1 - ideas identified - focusing on being able to generate social housing to help those who had become homeless get back onto property ladders - about making efficiently, quickly - offsite, factory conditions - reduces cost of construction - adaptable to many different site conditions - quotations below (from above) From our discussion, it appears the ASPs do not do much digging around the 'discourses' ideologies underpinning the precedents they are engaging with. They tend to take the information they find at face value - time is a big issue and also this is a difficult aspect of the task to find other writing that speaks to the discourses framing the designers' response and or agendas that may be under the surface - would it be more a case of they do manage to identify writing that refers to thinking and engage with that but do not dig into the ideologies themselves in much detail - not in brief either ASP3 did refer to companies own mission statement - for living home - innovative, adaptable and integrated - underpinned by social values, economic values, environmental values and design values criteria see visual material - concept - company state they are borrowing from automotive industry - a common chassis with highly individual outer shell - modern methods of construction - green homes - took the visual representation of their framework rather than textual. I found a large amount of material on precedent on the link that ASP4 sent me which she did not use in her presentations or in the interviews - focused in on the sustainable aspect achieved through materiality ASP5 is dyslexic and he missed the information in the pdf he sourced about thinking behind the project - uses text almost verbatim without citing and ignores relevant information - lack of understanding? - does add his own shading to the sections etc. he uses ASP5 relies on text he gathers not sure he understands what he is talking about - cannot deviate from the text on his presentation to explain in different words or elaborate on what he is talking about in simple terms ASP6 is dyslexic and has difficulty remembering how he has coded folders in the online environment. This means he often cannot get back to sites where he finds information and where he has stored information - reading is a big problem - he says he reads things visually architecturally and relies on his memory to communicate his analysis/understanding - unless he can see what is going on visually does he miss the deeper details associated with precedent analysis? - his presentation artefacts are almost devoid of text except for headings and he spoke at length from memory during the review event I observed - he did not use or attempt to paraphrase any of the text in the data he sourced - this is a serious learning issue - deficit or loss ASP 7 - presentation artefacts are composed of mainly visual imagery. Textual information is taken verbatim from sources without citation for one precedent - no explanation of thinking about ideas behind development is his own words other than his oral presentation at the review and during the interview - he did not give me all source links - During the interview ASP7 referred to visual imagery as a way of backing up his succinct explanations although there was no detailed annotation on these artefacts - which is an expectation of tutors/educators as a way of showing critical understanding and reflection - way of constructing message ASP7 says he is not given to explanations - finds it hard to articulate things and yet relies almost exclusively on talking as a way of demonstrating that he has engaged with the task - not actually doing what he has been taught to do or is expected to do - does that reduce the amount of learning and or meaning making? ASP8 uses all the information she collects and analyses it as a way of learning and then explains in her own words -focused in on materiality and insulation as a way of achieving sustainability in her deconstruction of precedent - also about creating a community with services, living, and interaction provided for - however English is not this participant's first language - process of linguistic translation going on as well as analytical process associated with the task - textual and visual.	ASP1 Well they didn't say anything about that, but I think it is a starting point for them, for homeless people to get a start in their lives really, where they have their own individuality, you know, that they feel like they have a sense of self, you know what I mean? ASP2 ...housing association project - sold off other sites to ensure funding there to complete project - community focus - also informed by sustainable agenda - and a move away from the kind of high rise solutions that became ghettos in the past - providing communal spaces etc. ASP3 ...I found it was a very interesting design with the solar panelling at that steep inclination on the side of the house [points this out on presentation materials]. So then when I just looked into it deeper, it considered everything in terms of environmental issues and the climate and everything and having low energy and high insulation and thermal mass and everything we need to consider That's our orientation at the moment in our current project so then when I looked at it I found very nice clean design, [that] works efficiently; but I found then, that in terms of affordable housing, I couldn't see how they could make it affordable because there is quite a large footprint for only [a] two bed space. ASP5 [ASP5 starts moving the materials around] Okay, from my first precedent the key ideas behind it were mainly got to do with the energy efficiency of the (name of precedent one), and what they had done. And I found this an important one as it plays a key role in our new designs for the project. And what I had looked at for it was, I looked at the way that it sits in a 3D part of the long site to show people the way it looks on the outside, so externally just to start off the precedents images. The other thing was I looked at the way he managed the energy efficiency, the way the building was run. ASP6 Yeah well, the idea of the (name of precedent) was that you would actually live, work, and sleep in the one location. If you like, it was going back to the old cottage industry type living, I mean the guts of the building in New York and in other cities where the first ten floors were offices. And then you had smaller apartments, and the further up you went the more expensive the apartments. And the idea was, you lived upstairs and you worked downstairs. It didn't work very well there. Seems to work well enough in (geographical location) where they only allocated a small amount of industrial space. Now transversely in (name of precedent two) which was the other one I was given, this was entirely, in my opinion, it was entirely the opposite. The whole focus of the building was an internal courtyard, your internal garden, your internal spaces. So, you went in through the front door and you lived in a cocoon. ASP7 Yes. I would think what I got from it was the very modular forms. Well, it was, kind of for me, they were introducing a new style of building. And they had hoped that this style of building would kick off in a big way. And by doing so, you would have construction sites, but they would be short time construction sites. ASP8 So, I really like the way how they- - it is kind of a small kind of village. So, that some of them are private some of them they are affordable. They are just a small community. They recall just a small village, but you can have everything. Some private houses like you know- Yeah. And some of them are affordable and you can also have your restaurants and you have the doctor there- - kind of small community. They were just kind of trying to have everything beside them. Just like reduce the need for their cars. They are saying they are trying to keep CO2 low. So, they don't have to have two cars.	

Figure 33: Interviews Q1A Discourse

Themes	Question	Explanation	Analytic Memos	Topic 1: Design Ideas/thinking (Discourse)	Quotations
1B DISCOURSE	Frame for the interview guiding script taken from Kress (2010)		I am addressing my research questions - carrying out a mapping exercise - mapping the ASPs meaning making efforts in order to identify the roles and relationships of the multimodal resources they deploy in the meaning making process associated with the precedent study task and review event and the active nature of the meaning making Participant responses were transcribed for readability - thematic antecedent sets the scene for the review observation which is the core multimodal object of analysis		Highlighting, colour and bold font is my emphasis here related to what I heard in the interviews and 'read' during the constant comparative reading process (Thomas, 2016; Salander.....)
IDENTIFYING, TRANSDUCTING, TRANSLATING THINKING INTO ARCHITECTURAL STRATEGY IDENTIFYING, UNDERSTANDING CONNECTING AND SYNTHESISING IDEOLOGICAL THINKING - TRANSLATING INTO STRATEGY AND THEN INTO ARCHITECTURAL MECHANISMS	QUESTION 2 - IDEAS INTO STRATEGY INTO ARCHITECTURAL MECHANISMS OR DEVICES Describe in as much detail as possible <u>how the designers' ideas were realised in the architectural work</u> you investigated... forms, spaces, lighting and colours, materials and detailing. What architectural devices were used?	THIS PART OF THE TASK ASSUMES THE STUDENT IS FAMILIAR WITH, AND SKILLED AT, USING THE INTERNET AS AN ONLINE RESEARCH ENGINE AND THIS IS NOT NECESSARILY SO! This question is about the link between ideology, strategy and architectural mechanism or devices - Architectural ideology is transduced (Kress, 2010; Bezemer and Kress, 2016) (process of transferring/conv erting material in one form into another) into architectural strategy - This means that architectural strategy comes about as a result of translating architectural ideology (thinking) into objectives (concrete/visible goals) for making architecture and these objectives are achieved using architectural mechanisms devices -	There is an issue/discrepancy between what is considered important re the brief and what some of the students identified as important - I went online to look at the information source/s the students referred to in their presentations during the observation and interviews and I uncovered information (linking to ideology/discourse) that I would have identified as being relevant and important which the ASPs, by and large, did not use - even though the brief does provide clues and signposts as to what is important - sustainability.... However the design studio brief for the affordable housing project does not provide a definitive framework or directive advice as to what to look for re ideology, strategy or architectural mechanisms nor does it set out examples to help the students - it does provide a recommended reading list as well as using relevant terminology - also all the students expressed that they experienced difficulty locating information about at least one of the precedents they had been assigned to - does this point to a lack of preparation on the part of the tutors or the ASPs lack of researching skill? - also the ASPs did not cite each individual image rather gave the website address as a link for resources - many of them overlaid their own 'marks' - hatching, shading, colouring in, retracing on top of originals - why are we allowing this? Each student had to analyse two different precedents this meant that across the class of nine students (8 participants) theoretically each student would be exposed to and have the opportunity to learn something about the thinking that underpins architectural approaches to social housing in a range of different situations - real life and competition entry - across the 16 different precedents - the aim behind this is to provide opportunities for the group to have an appreciation of the different ideology and agendas driving social housing approaches - how	In her responses to my questions about the above ASP1 attempts to explain her perceptions/identifies the 'how' of achieving the architectural intent - plug and play - structural and assembly elements constructed off site in controlled factory conditions - high quality - able to control quality - identifies impact on form - rectilinear and spaces created - linked to ease of construction - planar forms and transportation - also identifies did think about colour and light - linked to exterior - about 'personalisation' and 'identity', communal space - identified that interior blank page for each user to put stamp on - spaces inside not flexible though - all this information she presents to me verbally using the visual materials in background - this information is not represented textually on her presentation materials however her visuals - plans, sections, 3Ds help her explain - she usually takes notes down in own handwriting from sources as a way of understanding and engaging with the subject actively - remembers it then so then she operates between her notes, talking, moving, visual materials (from above) ASP2 had difficulty analysing site plans, elevations and sections to determine what the layouts were like - role of different types of drawing highlighted here - also I found material she did not give me as source material that had more detailed visual information that she did not use - two issues here one has to do with the role of the different types of visual media (drawing types) - architecturally speaking in terms of plan, section, elevation, site plan and so on and the other has to do with researching skills - contacted practices got no information from them - another issue is to do with protecting design work - did not analyse deductively based on information she managed to access (make a drawing type conforming to expectation for type of explanation OPEN PLAN NATURE OF DESIGN GRABBED ASP3s ATTENTION - organising of the spaces to maximise space physically and perceptually as a response to the evolving nature of living in the 21st century - in turn in response to 27 items on their list/framework Sees the project as ideologically and socially driven - provide something people would be happy to live in - collaborative process between architect and developer - mechanisms used architecturally were to remove circulation to exterior, move services to exterior - open plan living core with 3/4 types for different living scenarios - Demonstrates critical awareness that there are problems with approach - but decisions linked to social decision - community not just economic decision - also variety in facade types - individualisation - social decision about integration into different contexts - precedent one - links social strategy to architectural mechanisms employed - not accepting ideological, strategic or architectural mechanisms/device choice on face value Competition focus - environmentally friendly and high spec linked to sustainable practices - agenda - identified as more suited for urban context - things that grabbed ASP3 interest - southern orientation and stacking - extra exterior space on different levels and natural light penetrating more deeply into the building Variety of choice is what grabbed ASP1s attention with - same concept - connection to outside and nature achieved through views, vertical gardens, courtyard/secure overlooked play - uses presentation artefacts to explain and demonstrate Open planning identified as strategy with optimum openings in each space- dual aspect- terminology - more light - community - entrance between houses promote interaction - recognises sustainability - putting them together saves energy output Identifies an architectural strategy to do with sustainability/green - rooftop planting Architectural devices and or mechanisms identified (taken verbatim from source) - the use of computerised/controlled automatic shutters to deal with keeping out sun in summer and keeping heat in in the winter - computer controlled technology throughout - ASPs focuses in on the technical aspects - more information on sites about this - precedent one. In precedent 2 ASP5 stated that he had difficulty getting a range of information represented in different visual modes - plans, sections and elevations design/technical - limited analysis - just relies on information found - refers to, shows me his two presentation sheets. When I checked his sources - his sheets based on information almost verbatim - no citing. I found more material on site he sent me link to - matter of navigating site - also found links to material with plans - seems precedent 2 is a conceptual approach - no solutions in different contexts - ASP5 missed that completely (I found one detailed pdf which showed how precedent concept realised textually and architecturally - plans, sections, details 3Ds that ASP5 missed - does not appear to have understood concept applied to many different homes) - if tutors knew this link then why did they not point the student to it or show him how to use the site? - is this lack of skill researching combined with willingness to commit to the time it takes? Combined with lack of direction? Most of the analysis ASP5 appears to do is based exclusively on understanding the information he found - not much design analysis	ASP1 Well yeah. So, what I think in terms of this whole 'plug and play' thing is that it was the conditions were able to be set in the factory setting, so they were able to control the environment in which it was created. So, they could get the sustainability and everything to the standards that they really wanted. ASP2 But it was more about this sustainability, you know the fact that they had obviously looked at multi-generational occupants. You know they have done, not just graphic images, but they have made 3D prototypes that they have tested out. They are very conscious I think about the orientation of the building, how they are going to heat, light it and how to deal with how people are going to live in it. You know, from what I could gather, they had addressed all the problems that were there. You know the building heights. They didn't want anything that was too high in terms of, like, construction. ASP3 Yeah back to the first one. The first one I believe myself looking at it and looking into it and reading about it is that the architects - and they are working in conjunction with a contractor, a building contractor, in this whole scheme - and I think they have all sat down and decided they needed to have something for high density but that could work for people. I don't know is it developer driven or architecturally driven. I see it as very conscience and socially driven, in that they wanted to increase, they didn't want to just fire up things that people were miserable living in, in this social environment. Yeah, because it was a competition entry. So, that was the driving force behind this and just from seeing some of their images, and just the general layout, it would be more suburban suited. Oh, the stacking, and the southern orientation I found very interesting. Very clear (as) to what they are doing, it gives extra exterior space on different levels while also letting light penetrate deeper into the building. ASP4 Yes. Like in the community drawings that they have shown, that these houses are detached houses with entrance in between. So, every house will be attached from, like, entrance to house so, like, here you can see [pointing to presentation materials] that this house has a small entrance inside, which is this part [pointing to presentation materials] and then the other house. So, it is all completely unattached houses with community space at the front. Even though the diagram they show is more about sustainability using sunlight, natural ventilation, using the rainfall water [harvesting] in the toilets; so, it is more about sustainability. ASP5 The strategies behind the house that made it a green house and sustainable was they had rooftop planting which enlarges the eco system of the house, and I found that an important aspect of this precedent. How it does it and I have a graphic there to show it [pointing to presentation materials]. And then the next thing. It also used, instead of blinds, it had automatic shutters which were computer controlled shuttering systems which limit the heat build-up when on in the summer. So, they could block out the sun. ASP6 I am thinking. They did an awful lot of research, a phenomenal amount. Oh, their research developed their architectural strategy. So, they researched all about the light, and the heat, and how they could generate air flows through the building. ASP7 For me, that first precedent in particular, that is all I got from it, was the style they were using to build. It was never mentioned, what their intentions were. But for me what I got from them, using colour like this [as shown in the diagram on presentation sheet] was just that the imagery would be more distinctive, and you wouldn't get, say for example, the yellow mixed up with the green, you would know these were two. Well I think it is a duplex to start with <sound of rustling sheets as ASP7 looks at the second precedent>. His south facing facade is - makes good use of glass for the natural light. He has kept the bedrooms, kind of, I suppose, down in a cold dark corner of the house as such. Very square! It is a combination of squares that makes up the whole building basically. ASP8 Hmm. They had two, like, two different sizes, like. They didn't have that much explaining on the - they could be apartments, and they could be, like, separate houses. But they didn't do too much information for these. They did them together, but they only showed the two bedroomed houses. And I read the strategy that they tried to keep, like, the bedrooms under bedrooms, and the orientation more to the, like, sitting room and kitchen.

Figure 34: Interviews Q1B Discourse

			<p>this thinking is transduced/translated into architectural strategy for social housing and how the strategies are translated into a set of concrete and tangible architectural mechanisms/devices by which the architecture is manifested (or could be manifested - that is made concrete and real - exist) - however it is evident that the students do not dig or search around what surfaces in their search and they seem to stop searching if what they are looking for does not surface immediately or they do not recognise it as an important source before they open the website - so it is likely their understanding of the discourses underpinning social housing for instance is related to the information they find within a tight time frame and this information tends to be taken at face value - not much evidence of the ASPs problematising what they discover with exception of ASP6 who saw a disconnect between stated aspirations and the manifested architecture</p>	<p>for precedent 2 particularly because there were no plans or sections and he did not attempt to construct these deductively from the 3D imagery and info available -</p> <p>Part of ideology is that approach and solutions should be research led - technical aspects to achieve sustainable etc. came up with theory around communal living based on villages then tested that theory. Issue with the variety of modes information about this project represented in affected ability to decode how architecture itself responds to conceptual thinking - also this is about roles different modes and problems when don't have necessary one - again though linked to ability to find relevant information in online researching - I think many of the ASPs struggled with this - again I found information that the student did not - plus I identified salient information that they appear to have missed or not deemed important. Noticed distortion of room form/layout - irregular - could not get at why. Prior working life experience impacting on interpretation of what is going on in this precedent - mature student with construction background in international context - aid type construction - socially motivated - attracted to self-sufficiency paradigm. Uses visual language for reading what is going on - sections and plans visual analytic language - expectation around this also - universal way in architecture - what student is learning to do - engages kinetically/actively with knowledge production - finds reading text difficult - but can read visual language - much more comfortable in the visual world and talking. While analysing precedent two ASP6 demonstrates critical reflection - the mismatch between stated conceptual approach and realisation - uses plans and sections and talking to explain the why of this mismatch - none of the analysis represented on the drawings as annotated text other than descriptive headings - so unless ASP6 is there it would be hard to decipher the analysis going on via the plans sections and elevations etc. because we are left to interpret what he intends us to understand - nor does he have a script - relying on memory with visual material as prompts (roles mode). Prefers to talk about it - explanation rather than write it because of issue with written language. Didn't send me all the images he had up on the wall in crit space had to rely on photos I sourced myself sometimes.</p> <p>This student did not really address the task in any depth - spoke in simple sentences did not tend to elaborate or go in-depth answers to any of the interview questions about the work. Deduced that colours in imagery about presentation not reality - to highlight the different unit typologies text taken from sources verbatim - no citing</p> <p>For the most part I had to co-construct analysis on the basis of looking at his presentation materials with the student whose responses were mainly one or two sentences. Quote from question 3 ASP7 started to talk more about how architecture manifested referring to presentation materials - so processing questions as we talked - maybe needs more time to think and reflect - get into the talking process before can answer questions.</p> <p>ASP8 uses talk and her presentation materials to explain the strategies to me - English is not her first language so there was probing, prompting and explanation from me but she demonstrates critical reflection and a critical understanding of how the strategies are being manifested in the architecture - not sure of all terminology, or technical considerations - asked a question about the meaning of high density - used her initiative when she could not find information on second precedent. Researched and found an alternative that grabbed her attention re the kind of ideas she was thinking of adopting at the time of the precedent study - subsequently changed focus somewhat - addresses both technical and design mechanisms</p>		
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Figure 35: Interviews Q1B Discourse

Themes	Question	Explanation	Analytic Memos	Topic 1: Design Ideas/thinking (Discourse)	Quotations
1C DISCOURSE	Frame for the interview guiding script taken from Kress (2010)		I am addressing my research questions - carrying out a mapping exercise - mapping the ASPs meaning making efforts in order to identify the roles and relationships of the multimodal resources they deploy in the meaning making process associated with the precedent study task and review event and the active nature of the meaning making Participant responses were transcribed for readability - thematic antecedent sets the scene for the review observation which is the core multimodal object of analysis		Highlighting, colour and bold font is my emphasis here related to what I heard in the interviews and 'read' during the constant comparative reading process (Thomas, 2016; Salander.....)
REPRESENTATION AND CONSTRUCTION OF DESIGNERS MESSAGE ABOUT ARCHITECTURE OTHER PEOPLE'S MEANING-MAKING USING MULTIMODAL RESOURCES IN ARCHITECTURAL CONTEXT-	QUESTION 3 - HOW THE DESIGNERS ARCHITECTURE WAS REPRESENTED, COMMUNICATED IN THE RESEARCH SITES AND OR TEXTS THE ASPS VISITED AND USED Tell me about the ways the designers' architectural work was represented in the text, images and drawings you engaged with during your research into these precedents - ANSWERS TO THIS QUESTION FRAMED BY THE AMOUNT OF MATERIAL THE ASPS MANAGED TO UNCOVER IN RESEARCH PROCESS AND THEIR ABILITY TO DECONSTRUCT THAT MATERIAL ANALYTICALLY INCLUDING DEDUCTIVE ANALYSIS - MAKING DIAGRAMS multimodal representation	In this question, I am seeking to explore how the ASPs identified the different modes at work in the designer's constructed messages within an architectural community of practice - and what mode is used for what - MAKING MEANING MULTIMODALLY IN ARCHITECTURAL CONTEXT GENERALLY	In the precedent study task the ASPs are expected to deconstruct the ideologies, behind the architectural strategies and mechanisms/devices used to make architecture - part of this involves identifying and making links between the thinking, strategies and mechanisms as well as the messages the designer wants the building to convey to those who engage with it as users or viewers - by means of examining it analytically via the multimodal representations they engage with. In this way, there is an implicit expectation that they are absorbing the ways that architectural practitioners communicate with the wider public as well as themselves - this task is also about them building up their own design vocabulary and gaining an understanding of the discourses that frame architecture At this stage in the programme there is an expectation the students are familiar with most of the visual tools and their roles in the analysis, making and creating designing process - it is likely there is an implicit expectation they will learn from each of the precedents they engage with as represented in the literature, online and on various websites as represented in the variety of multimodal modes available to them to use to construct their own analytical and designing response - however communication, representation are taught in different distinct modules across the programme so for instance - in theory - learn the mechanics of deconstruction, about architectural language from a message and making perspective, in design rep they learn how to read, draw, and make plans and sections, elevations, 3D models (physical and virtual), design studio applying all these tools in the process of designing as tools to aid creative thinking and as a way of representing/communicating - at the moment not taught all these different 'skills' from a multimodality perspective - much of what happens is also linked to	For the most part the participants engaged in a desktop research process - looked for information online - textual and visual data - writing, plans, sections, 3D imagery and analytical diagrams - also tutors intervened with a number of ASPs and gave them copies of pdf documents - library was not a port of call for most of the ASPs - time influences this plus in the digital environment they can capture and cut and paste and use in their own messages relying on the ways other architectural practitioners organise their messages - is this reinforcing and part of socialisation into wider architectural community as well as the sub culture of that community (CoP) these participants belong to - learning by doing, also mimicking, copying - issue not crediting properly. ASP2 had difficulty finding the right kind of 'data' this in turn led to difficulty analysing site plans, elevations and sections to determine what the layouts were like - role of different types of drawing highlighted here - also I found material she did not give me as source material that had more detailed visual information that she did not use - two issues here one has to do with the role of the different types of visual mode - architecturally speaking in terms of plan, section, elevation, site plan and so on and the other has to do with researching skills - contacted practices got no information from them - another issue is to do with protecting design work - For the first precedent ASP3 found a great deal of information in pdf format, not so much on website. The information was represented textually, visually - the second precedent very limited relying on 5 key images from which deduced things Identified thematic approach to representing/communicating information using a range of multimodal resources including text, image, analytical diagram Second precedent - very little information found analysis based on deduction of reading 3D digital imagery. Just relied on small amount of data able to locate and deconstructed this for first precedent - imagery, headlines, one diagram Found more info on second precedent - on website, and in articles Highlights the repetitive nature of information online - possibly all coming from one source Deliberate manipulation of materials to showcase material - also highlights key kinds of information/scaled drawings etc. missing left to interpret unscaled visual data And sustainability yes, because they talk about materials, bringing them on site and working with the context about materials. They realise they reuse the materials that are in the context. Firstly, it is important to note that ASP5 took most of the messages verbatim from sourced material - text and visual - there is a minimal attempt to put this information in his own words. To be fair much of the data represented is technical - however not cited as quotation... ASP5 has an understanding of what roles different types of data should play, architecturally. SUMMARY FEEDBACK - That was the major problem with it, that I struggled with. And actually, a good few of us in the class struggled with the second precedent, in terms of stuff [getting information, written and visual]. You probably heard that, some people have probably told you already that the second precedent was very hard to come by. Sourced large amounts of material in pdf format studies - focused on fact largely image based - when I looked at the material mixture of text and visual - variety modes used for different purposes - not sure how deeply ASP5 considered or learnt from this p1 Recording issue associated with dyslexia - because relying on memory forgets where things are - also I have to simplify and clarify as with ASP8 This participant took imagery and text verbatim - not much dissection from an analytical perspective - or is it that needs time to process question before can begin to answer as with Q2 Uses the presentation artefacts to show me how the information is represented - implicit assumption I understand the different modes at play and their roles? English not first language of ASP8 difficulty understanding Explaining/clarifying - NOTE NEED TO DO THIS FOR ASP4 - EXPLAIN - NEED TO EXPLAIN/CLARIFY/SIMPLIFY ALSO FOR 2 DYSLIXIC ASPS - also this happened in the review event tutors simplified and clarified at times look for instances now ASP8 explains how the information represented and how she 'gathered and recorded' - cut and paste - again flow of dialogue to simplify, clarify and explain what my question meant	ASP1 Oh, their information. Well I tried to find-- I went to the actual architects' web site, so I got as much information as I could get from their personal standpoint. You know, what they say about it is what they are trying to convey; so, by understanding that you can kind of see where they went with the design, that was the first part of call. I tried to look for everything from their viewpoint and then I tried to find journals and stuff on it. I didn't find much, except I did find one in AJ [Architects Journal] but because we have no access to it [college does not have a subscription to this journal], the college you can't get into it, the publication. So, there was text. [architectural practice] were very good in the sense that the artefacts themselves were put up in sections, and theory based thinking was in diagram form, diagrams, plans, images. They had these on their website, which really helped me understand their thinking on it. ASP2 Yeah there were images and then there were superficial digital type images, Photoshop type stuff, but I mean that's all they could have done really because this bit, this is not built [pointing at second precedent]. This has had its first phase [referring to first precedent]. There is an actual physical building so I can understand where you are coming from. Yes, I had to get that from them [showing presentation materials]. There was very little on either of them all the views are actual websites themselves, you know, there was very little written. You know normally you can go to 'Arch Daily' [architectural website] or somewhere like that, you might pick up bits and pieces. Yeah, I don't like the deconstruction business because I am so green at this. I am not comfortable about making assumptions. I am reading somebody else's mind. You know maybe it wasn't like that and then you are trying to interpret what they did into your design. ASP3 No so I went and I found pdfs. Now I think [name of actual architectural practice] were part of one of the pdfs that were produced with a construction company. I think it is something they use as their selling point from what I gather. I don't know. Yes, there was a lot of-- what I have extracted for this [the presentation] came from that pdf. So, they did use a, kind of a, similar theme throughout it all in terms of colour and how they annotate images and how they-- even in terms of tables they put in, they always brought it in, an element of these [architectural practice] logo design. Blue especially, pastel blue, that they brought in throughout the whole thing. It kept it very engaging, actually I went through the pdf several times and there was over seventy to eighty odd pages. Nothing! There was nothing I could find; so, all I could get from that was five images that-- some of them were clear, but the plans and sections, when I blew them up became very unclear. ASP4 The first precedent had few images, small text and one diagram that's all what they had. The second one, the main information that I found is on the company web site. There are a few articles, even of like, the architectural website or journals. Yes, but they all repeat the same information. No! Even they said that there was variety of typography and they have drawn it, but they didn't indicate where are they on the big map. What do you call it? ASP5 Yeah, I got plans for this and I found them quite interesting because at least with the plans then I was able to see exactly where they used all the types of construction and stuff within it. And the forms of the spaces within it, which is shown again, they were rectilinear, but I couldn't say they were exactly rectilinear. Yeah mainly text there was no plans, no sections, and the images were very hard to come by as well <sound of rustling sheets as ASP5I takes out the second precedent>. They were only a graphic and then underneath the graphic had all this information and that was it. That was the major problem with it, that I struggled with. And actually, a good few of us in the class struggled with the second precedent, in terms of stuff [getting information, written and visual]. You probably heard that, some people have probably told you already that the second precedent was very hard to come by... ASP6 Text yeah. There was reams. There was fourteen pages on one pdf and there was dozens of pdfs. It had gone through numerous studies They had studied it before they built it. They studied it while they were building. They did a study seven years after it was built. So, there were oceans of information. Yeah? It was all - ninety per cent of them were image based. Well diagrams so. There was sketch diagrams from- going way back, way back from when they started to look at the light and heat, and heat transfer. There were sketches of what they were trying to achieve there.

Figure 36: Interviews Q1C Discourse

			<p>socialisation over the length of the programme - learning from peers ahead of them via vertical projects - go into the research process around precedents research knowing they have to locate different kinds of knowledge represented in different communication modes - text, talking via recorded interviews, images of existing or designed architecture, plans, sections, elevations 3D models and diagrams and analytical diagrams</p>	<p>now ASPB explains how the information represented and how she 'gathered and recorded' - cut and paste - again flow of dialogue to simplify, clarify and explain what my question meant</p>	<p>ASP7 And all the plans were readily available. You could blow them up as high as you wanted to [increase their size scale wise]. You could do them one to one if you wanted. It was marketing, yes, yes, yes. "This is what we can do for you on that site". There were fifty units to the hectare which was -forty-five is high- - quite what would you call it? quite packed in. There is another word but I can't think of it. it had all that. It had imagery to start with, and there were plans and a few sections then. They are 3D yeah, yeah. And then some text.</p> <p>ASPB Oh, that one had more information [pointing at second precedent sheet]. More about the details and everything. This one had less [pointing to first precedent sheet]. I just, kind of, went with what they have. More information about the differences- - like details for two separate ones, different houses. But these ones, like, they are all going together. There are no apartments. How was it represented, is really what I am asking you? How do you mean represented? Did you get all this [information on the sheets] off the website [architects]? Oh yeah. So, the images, the 3Ds, the plans, site plan, (and) text was all there on the architect's website, was it? Yeah, and the second one, sketches. They, kind of, all had, you know, the CAD drawings or 'Revit' [Digital software] I think. You know, the more professional ones. I just did the transfer [cutting and pasting] myself. I just redo it [drew over and coloured in]. Okay and what about the second one? Second one, as well, they had a lot of information about it</p>
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Figure 37: Interviews Q1C Discourse

Themes	Question	Explanation	Analytic Memos	Topic 2: Analysing/Deconstructing the Precedents (Design)	Quotations
2A DESIGN	Frame for the interview guiding script taken from Kress (2010)		I am addressing my research questions - carrying out a mapping exercise - mapping the ASPs meaning making efforts in order to identify the roles and relationships of the multimodal resources they deploy in the meaning making process associated with the precedent study task and review event and the active nature of the meaning making Participant responses were transcribed for readability - thematic antecedent sets the scene for the review observation which is the core multimodal object of analysis		Highlighting, colour and bold font is my emphasis here related to what I heard in the interviews and 'read' during the constant comparative reading process (Thomas, 2016; Salander.....)
HOW ASPS WENT ABOUT THE PRECEDENT STUDY TASK- RESPONSE TO THE TASK PROTOCOLS MAKING MEANING MULTIMODALLY IN ARCHITECTURAL CONTEXT- ASPs	QUESTION 1 - process of addressing the task Describe in as much detail as possible how you went about the precedent study task - this is about the 'how' of analysis process General steps - PROTOCOLS associated with carrying out the task overall	In this question I seek to gather information from the ASPs about 'how' they address the task multimodally overall - to get at their overarching strategies around using different modes during the different steps associated with the task - issue here to do with how much 'socialisation' is going on in terms of being a member of a specific community of practice in a distinct setting - architecture education at the research site - put another way it has to do with what they have learned about making architectural meaning over the period of their studies to date and how that is impacting on their current meaning-making practices	Seeking to establish general information about how the ASPs went about the precedent study task - what strategies they employ - are they using prior learning from the programme do they develop this in terms of approaching the precedent study task - how do they decide what are the key facts? seems to be related to the 'clues' in the brief and what grabs their attention around that in the researching process - they talked about getting ready to do the task in other questions - key ideas question - in terms of analysing the brief and problem around seeking clarification - is this a time issue or is it something deeper that ASP1 pointed to in terms of checking/seeking clarification from tutors - seem to see task beginning with the collecting processing info stage Summary Protocols for task - information is captured, snip it tool, cut and paste - then it is condensed more experienced students use a framework - based on brief or prior experiences as headings to summarise information under - then ASP1, for instance, produced replicas to the visual material (traced/redrew them herself) as a way of coming to understand them - helps her ask critical questions/problematises what she is engaging with - helps her figure out how the spaces are put together - does this process after reading and note taking complete - also often traces over the other persons representations - plans, sections, elevations, 3Ds and analytical diagram - again to get her thinking and problematising about why things were done a certain way - process of learning linked to process of deconstruction - linked to what grabbed her attention etc.... does a number of jobs at the one time - starts constructing message/artefacts while carrying out the deconstructing process (managing time issue?) - process of transducting, translating, tracing over, making from observing visual language and analysing (ASP1)	Condense information to key facts/what considered most important facts - this is the ASP1s deconstructing process - relates this to the brief and prior learning experiences on the programme - uses headings/framework again based on what is asked for in brief, or prior knowledge around architectural frameworks. Framework - used headings to deconstruct/framework - orientation, cost, light, movement, aspect, noise, pollution, and security Building on and using prior learning - process of editing collected research materials - writing, visual - plans, sections, imagery- created/produced own drawings of the imagery etc. - quotations below Downloads - cutting and pasting into word document - then over into publisher to start constructing message. Like ASP1 doing both tasks at same time - again prints out and starts to draw over the imagery as a way of understanding - reads and looks at what is downloaded begins the editing process as moves into publisher - note taking and tracing some of the work happens digitally and some of the work manually - so notes digitally, tracing manually - differences between students - ASP1 writes notes manually whereas ASP2 does that process digitally. Role drawing - analyse deconstruction phase requires drawing to understand it Again mainly desktop digital research process although ASP3 does indicate uses the library but not for this one - time issue? - put in architects as search term - looked at website, then tried to get information on the specific project uses pdf search gets documents - leads to published documents on projects - shown how to do this by one of the studio tutors - all saved to own laptop - reads and thinks about this material - saying does not sketch as a way of understanding reads and looks - then after that begins the process of extracting what he considers to be relevant information - based on what he wants to talk about that is linked to brief - (possibly often misses salient info because does not engage with it physically until the process of extraction begins) Used the materials own structure to help him organise the material - uses snip it tool, to capture what he considers relevant and pastes onto blank document - organises information on own sheets relative to important headlines and views it visually to check looks okay - prints off and then overlays own analysis on top - has tried in the past to contact practices - did not get response put him off - time issue Like his colleagues had an issue with second precedent so found another and used images, found in first look Procrastinates - last minute - time issue I teach these students about architectural precedent study and the analytical process associated with deconstructing precedents; so, we explore the use of frameworks, including examining what frameworks are, where they come from and how to use them in the analysis process and the reporting process (as structuring, analysis and organising devices Part of the learning process associated with frameworks is that even though architecturally speaking there are generic/expected areas to explore in the analysis process associated with precedents, often briefs focus on several of these and exclude others because of the project briefs focus, what the learning outcomes are for the project etc. Process of translating/transducting ASP4 moves backwards and forwards between text and the presentation artefacts to explain what she is talking about with me and to 'show' me Tool for understanding - physical reality - without being there actually - virtual reality Like ASP1 ASP5 reads and then makes manual notes as a starting point - however it has to be noted used textual and visual data sourced almost entirely verbatim - no citing Judgment about what was important to look for linked to aso5s interpretation of brief The brief is normally introduced verbally with time for questions so it is likely this is what ASP5 is referring to here - elaboration given in studio This is about assigning roles to different visual modes - plans, sections, diagrams, sketch 3D - however again it has to be noted that this student reuses the designer's representational tools and text verbatim almost without citing - very little attempt to 'transduct' or translate into own visual language For the most part did not use own sketches in presentation artefacts just in notes - issue here about confidence in own visual language? Explaining the issue - around remembering and finding - this is really important in terms of interacting with computer in terms of research for someone who has dyslexia - preferred medium of reading because of size of screen but issue around logging Does not translate into textual environment like other students - again important to explain this goes against the grain Evidence for using computer screen more easily than large quantities of written text - frame around it	ASP1 ...So, when you collect all the information from different sources it tends to repeat itself so I condensed it to the key facts that were relevant throughout - the most important facts. Well I kind of broke it down into headings. So, what I did was I had orientation aspects, cost, light and movement, aspect, noise, and pollution, privacy and security; you know loads of different sections. Yeah, I used areas that I thought I had previously used in other projects that would be important to analyse in terms of this. So, what I did was I got a list of those terms and those sections to analyse it and I had all my research with me, and then I - what I did then was I did my own drawings of the imagery and stuff I had found, plans and sections through these drawings. Why? Well I like to do them myself and scan them, because I feel like you get to know it by drawing the lines yourself. You, kind of figure out how stuff is put together. It gives you a good feel of the spaces. You start to think about why were they oriented this way, or stuff like that - that is why I like to draw them myself you really get a sense of what the design does especially after you've already done all the reading and the research, you are already thinking of that. ASP2 Okay. Yeah, I downloaded as much information as I possibly could. I always put everything into a word document first and then I go over that and then start bringing it into publisher I suppose. And from there I create two pages [in publisher] with the drawings or images which I printed out. And I do believe it's a great one for, if you draw over something you start to understand it. That's where I started to lose the plot a little bit because I knew from drawing over these that I really wanted to know a bit more about what was REALLY going on. I mean it was only drawing this little bit [pointing to presentation materials] that made me realise, "oh yes they are the apartment blocks". And new lane-ways that had been put into the side. Now if I had actually just copied and pasted that onto the sheet I wouldn't have realised that. And I could have put the text from the website straight onto that... ASP3 The task, when I began I went straight to 'Google' as I think the whole generation do now. It is our first port of call for everything. So, I would have gone and just looked up - basically found out the architect and looked at their website, and then kind of took it from there. So, I looked at the website, got some information about them, their beliefs about themselves that was there, and then I go and try and find the project itself. I found a bit, but then found I didn't have enough, so went back and searched again, the pdf search I find is a great one. ...And then I kind of - I am a demon for storing information in my head. I don't know am I going against the whole architects' practice, I am not the best for sketching. I would be kind of going through something, and I would be weighing it over in my head a lot, and I would read it again, go back to something. I would be thinking about it and then I would go away from it for a few hours, do something else, and then come back to it. And do something else for a bit and - kind of here and there. But then I kinda - then it is a case of I need to get something on paper; so, then it is going and just extracting the relevant information. Yeah, so I went in and I cut out what I needed, what I found relevant looking through it. ... just went through each page and looked at information and said "oh that is something that is relevant that I want to talk about", so I took a jlg or a snap of the pieces and copied them onto a blank page and did this throughout the document. So as when they were on had them in some bit of an order [put them in document as he went along so in order] on the blank page. ASP4 Okay. I - first of all I start to think about it to deconstruct them the same way that you show us example out of the book. I found that they wanted very different things out of this. First thing I tried to get as much information as I could from - like I really research everywhere, images or information to see if I can get more information or gather even small information to make little bit right assumption about some of the things that are in there. And then, like, the first one I started to get everything they have because they do not have much. Yes, I trace over the pictures and the diagrams [referring to the presentation materials to demonstrate]. Saved the images - some of the images are brought from 'Google Earth' just to go between the houses and see the streets and how they look in reality actually. And what they mean, like, about having these spaces.

Figure 38: Interviews Q2A Design

				<p>Could use a frame as a device when reading physical textual material - mimic digital screen size material organisation etc.</p> <p>Trusts memory - can't read own writing - gets spouse to re-read it for him - huge difficulty in a learning environment where most lecture notes are represented in textual (written as well as visual) format - one saving grace usually there as pdfs online so student can use laptop</p> <p>Impact of these issue on morale</p> <p>Prior work experiences of benefit here - using these learnings and applying them in this context</p> <p>Long process of learning to deal with issue - time critical</p> <p>Higher level of skill and understanding/analysis in visual environment</p> <p>Has not considered translating text into visual language before??</p> <p>There are solutions to these problems - larger font - headlines instead of sentences on desktop folders so that things can be saved</p> <p>Main coping strategy is to rely on peers - asks questions memorises and uses answers as prompts</p> <p>Active engagement is another main strategy</p> <p>Act of hearing things and understanding them verbally and visually and then talking them - internalises the learning -KEY - performative aspect and process of modes in practice</p> <p>Cut and pastes from the data source into presentation draft</p> <p>After all imagery cut and pasted reads text</p> <p>Makes hard copy notes - so there is some form of translating process going on?</p> <p>Not really answering the question here</p> <p>By this stage of the programme there is an expectation that the student will be skilled at using visual language to express themselves architecturally</p> <p>How does ASP7 show analysis then?</p> <p>Relies on verbal skills to explain the drawings - this is not the expected or required response at this stage in the programme - does not attempt to overlay own visual analytical language on top of visual data - whereas several of the other ASPs do adopt this way of going about the deconstructing process - linked to what they are taught in the studio and in theory</p> <p>Trying to show asp the problem by referring to presentation materials</p> <p>Lack of reflection issue again</p> <p>Lack of information issue again - check brief - but this problem happened to all eight - however ASP8 made a decision without reference to tutors' permission to select two different precedents not on the list</p> <p>Is this an assumption? - was there information that the student just did not find? As happened with a number of her colleagues</p> <p>Made a decision to take 2 new ones</p> <p>Responding to advice given at briefing on brief by 2 tutors</p> <p>Interpreted further to mean to look for 2 new ones which is what ASP8 did - not everyone heard this though or interpreted it this way - why??</p> <p>Decision to use these two precedents linked to what attracted ASP8 in terms of what would be useful for own approach to designing</p> <p>However, focus in own project shifted so not so useful - happens - response expected is to go find more precedents</p>	<p>ASP5</p> <p>ASP6</p> <p>ASP7</p> <p>ASP8</p>	<p>Hmm, yeah. Yeah, I went on to the website first and researched about the precedent and read up on it. And then I wrote notes beside what I found was important, and key factors within the house.</p> <p>And then I looked at what at what sort of diagrams would best represent this sort of stuff [the information] in terms of what they [DST1 and DST2] were talking about.</p> <p>Hm. And I did really quick sketches. Like two minute sketches of what way things could look in terms of the text. How I could explain it, and so I could understand it in more detail. When I first started to research about it [precedents] I couldn't picture the houses, or think what way it was looking, or what way it was.</p> <p>So, when I started writing the notes it helped me to clarify then what I was actually looking for. How I was going to break it down.</p> <p>And how come they didn't find their way into your presentation, all your own drawings? The little sketches? I suppose that was because I looked at- as I got further into the research the diagrams started to improve in it [the research materials] and they were all on their website.</p> <p>This was very simple. We were given the precedents. It couldn't have been simpler. I googled. God bless Google! I won't deny it I live on google. In that class because of my dyslexia. I find finding a book difficult, never mind interpreting the book. Whereas when it is on google there is only so many words in front of you, so you can focus on them words, and then you can move on to some- - so I find it easier to read something that way. I don't know if it is easier, but I find it easier personally.</p> <p>So, when I put a name on something, unless I can relate it some other way to something else, it's lost as if I never had it</p> <p>I would read them drawings in milliseconds. Whereas if somebody had written a description for that house, it would have taken me a day to understand what they were talking about.</p> <p>Okay, okay. So, in the process of learning, rather than trusting to memory, would you consider translating the text into a series of diagrams for yourself? Or do you do that, ever?</p> <p>No. It is not something that I have ever considered. It doesn't mean I wouldn't consider it. It is worth thinking about. I have to find a better way. I have to find a better way to communicate. Because even when I am doing my presentations, because I don't read well, I can't remember the names of these different architects that they all want you to talk about.</p> <p>Well I set up, in this case on A1 page, and pretty much copy the imagery and plans that would find, would tell the best story</p> <p>I would read about the building and see what the architect had to say about it.</p> <p>Yeah, I suppose I would always have a pen and paper beside me.</p> <p>Would you make hard copy [handwritten notes]?</p> <p>Yeah.</p> <p>Do you have diagrams?</p> <p>My notes would be very, very, brief and to the point I think.</p> <p>So, make diagrams? I haven't been known to now.</p> <p>Right okay. How do you analyse it then? How can you demonstrate that you are analysing it? What mode do you use to try and convince somebody that you have analysed it?</p> <p>I would talk them maybe through the plans, and show that person that I have read the plans and I understand the plans.</p> <p>At the beginning DST1 gave us two precedents from the list. When I opened them, I didn't find proper information?</p> <p>Okay.</p> <p>So, that is why I couldn't find proper information. One is from a competition. They just have two images and the other one nothing.</p> <p>Okay. What did you do about that then?</p> <p>That is why I kind of took two new ones.</p> <p>And did you check with DST1 and DST2 that it was okay to do that?</p> <p>They were saying, like, "if you can't find information you could choose other lower ones [on the list]".</p> <p>But all of those ones were chosen by other ones [other students], so I couldn't choose anything else. So, that is why I was thinking- - like he was saying- - I understood it- - I might be wrong I am not sure- - he was saying if you can't find information, find something where there is information.</p> <p>Hmm. Still you, kind of, using adaptable and everything and you still, kind of, want to make affordable; but if it is affordable you don't want people to saving money for this so - ((inaudible segment)) that is what I was kind of thinking.</p> <p>Not on information- - but I was thinking on everything what I could use for my- -</p> <p>Okay. So, they grabbed your attention because you thought that they would be useful.</p> <p>Hmm, hmm. But at the moment I seem to be wrong, because I am kind of more concentrating on the lighting <laughs>.</p>
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Figure 39: Interviews Q2A Design

Themes	Question	Explanation	Analytic Memos	Topic 2: Analysing/Deconstructing the Precedents (Design)	Quotations
2B DESIGN	Frame for the interview guiding script taken from Kress (2010)		I am addressing my research questions - carrying out a mapping exercise - mapping the ASPs meaning making efforts in order to identify the roles and relationships of the multimodal resources they deploy in the meaning making process associated with the precedent study task and review event and the active nature of the meaning making Participant responses were transcribed for readability - thematic antecedent sets the scene for the review observation which is the core multimodal object of analysis		Highlighting, colour and bold font is my emphasis here related to what I heard in the interviews and 'read' during the constant comparative reading process (Thomas, 2016; Salander.....)
WHAT GRABBED ASPS ATTENTION TREASURE HUNTING WHAT GRABBED ATTENTION from ASPs perspective around the designers' architecture as manifested-that is ideas translated into architectural strategies and then into architectural mechanism/ language expression physically	QUESTION 2 - addressing 'interest' here Tell me about what really grabbed your attention about each designer's work as you went through the analysis process brief linked to personal interest	Here I am asking the ASPs to identify what grabbed their attention about the architecture and why this question is linked to question 1 in section 1	here I am trying to establish what grabbed their attention and why it did It is expected that the ASPs will develop their architectural/design vocabulary around solving a particular problem in this instance social housing as well as develop their abilities to continue to learn on their own as they engage with a range of different architectural design scenarios - different functional typologies, architectural styles	Things that really grabbed ASP1's attention - performance - p1 - sub-standard in terms of amounts of space given - living experience - temporary nature of development in terms of occupancy and then p2 - personalisation - p2 Human well-being aspect is what ASP2 focused on - is this linked to own experiences of living in the same locality - also connected to changing the ghetto image of site - uses presentation artefacts to show me Different typologies key idea of interest - p1 - range of solutions adapted from a single systematic approach with series of variations Orientation key idea of interest - p2 and the stepped effect - green outside space on each level and natural light into living spaces Personal connection to sustainability - value Identity tied to site - homes themselves not individualised more about connection to nature - site as a whole has an identity - architectural strategy (is there a sense of community) - this is what grabbed ASP1's attention - link to personal values Taken from last section- talking about what grabbed his attention and why - answered more than one question within a question- (simplified questioning then) Trying to address what was asked for in the brief and by the tutors - framed his response and interest Demonstrating detachment here - appreciates values in architecture regardless of personal preference Tie to personal values? Negative reaction to this one although again objective in the sense recognised some of the good features - which are being used in ASP6 own design Isolation grabbed attention in second one - negative attraction Interested in the duplex - novel - had not come across it before p2 Decision to use these two precedents linked to what attracted ASP8 in terms of what would be useful for own approach to designing However, focus in own project shifted so not so useful - happens - response expected is to go find more precedents Attracted to architectural appearance - p1 Way sits in site - context Flexibility and simplicity - adaptability - p2	ASP1 The first one was that they were so focused on the performance of the building , they didn't really talk about what it was like to live in the space. What would (with) the square footage being below standard, how that would affect the living - as a person in that space. I know they were only meant to be temporary, three to five years, but still three to five years is quite a long time, to live in a space like that. The second one, I really like their drive for personalisation . There is a lot of choice. There is a lot of an anonymous sense in housing developments nowadays. Like everything is the same and there is kind of - and there is almost a waiting period after the development where people can feel like they can start personalising their own home, you know what I mean? ASP2 Oh, more than anything it was like the fact that they had used the orientation [to the sun path]. The east west orientation is ideal for homes located in that bit [site] and also the sustainability aspect . The amount of green area, which I think is extremely important, you know, they have really thought about this, the human well-being bit. You know, the fact that they had inherited this site that had looked like that through the seventies [referring to presentation materials]. ...You know which was a pretty horrible place and grim to be living in. The other interesting factor was the fact that they were starting to develop all sorts of, what I call very run down inner London city areas , you know, that I would have been very familiar with [participant's personal experience] having lived there. And I actually would like to go back now and see what they look like because they might be seriously enhanced. ASP3 Well, say - it's this whole typology , on the first one, the (name of precedent one) that - like I felt this is something that could be incorporated into any part of - it is an (geographical location) design so I feel this could go to any part of (geographical location). It's encouraging you to use the six panels. So, it would be off-site production. So, minimal - how would I put it - time on site, which I felt was less disrupting to people, that were there in the area or anything like that. So - and I find the system very - I think it is the way that construction needs to go in a lot of ways specially for - not one off buildings, but for building an adequate number of houses to a high standard for people, especially for urban (in the city) housing. We need methods. We need to look at it because of the precision. It can enact - the speed it can enact in building, and the quality as well. Yeah, the second one. What really drew me was the orientation and the stepped effect . I am after reading only yesterday about it that people do enjoy living in it, but they say it is a bit cold in terms of - cause it is all car parking underneath. That was the way it was designed, to get the stepped effect. It is beautiful in terms of this - everyone gets a South facing element and South facing garden. ... - there is a piece in the paper yesterday that people last three to five years because that car park is cold and it just doesn't have the same community environment. It is kind of detached from the community which I found interesting... ASP4 I - in the first precedent I like the building and sustainability actually , because I feel that was really all we need in this world, just to make the world more healthy. And this is the concept about this [first precedent]. And just - I am very practical so this is not about beautiful houses or big houses, it is just about what you need. The same thing there is connection with nature. I think very healthy influence. They built in among the trees because they knew they would be very beneficial to people. And to bring that in and make people feel that they are in a nice or a beautiful environment. Okay, so it is that connection to nature. Yeah. And that's more, like, I think important than the beautiful of the building. Because they use very simple materials, and the very simple way that they repeated the materials, so they didn't really focus on identity of the individual house. ASP5 Hmm, yeah. Yeah, I went on to the website first and researched about the precedent and read up on it. And then I wrote notes beside what I found was important, and key factors within the house. Okay, and how did you decide what was important? Through what was our brief for studio. Okay. And what DST1 and DST2 were looking for us to analyse in terms of - precedent wise. ASP6 Oh, it was inventive in every sense of the word. I am not saying I would personally like to live in the place. But as a strategy for communal living, and for community living, it was ideal. It is what I believe every village should be.

Figure 40: Interviews Q2B Design

					<p>They should have their own water purification system. They should have their own sewerage system. They should have their own electric generator system and it should run. And towns like {location} should be generating their own power. They should have their own water purification system which runs part of the town.</p> <p>Self-sufficiency and organised communal living is what the {precedent one} strategy was and it did work to a lesser or greater extent.</p> <p>The second one I had to do it because it was given to me. There was very - the isolation, is what - if you minimised it into one word, the isolation. You went in through your front door. Your front door was a rigid solid surface. There is actually photographs of them. I don't have it up here [on presentation sheets] but the front door was a solid door. You walked through that front door and that was it.</p> <p>You were cut off from the outside world. You were in your cocoon. You would call it a cocoon because there was nothing else.</p> <p>ASP7 I am, and I think what really attracts me about the modular system is it does away with the cowboy builder, because these units are made in a factory and craned in. They are going to be professional people doing that. And you are not going to get cowboys running a factory because it would be closed in a couple of weeks.</p> <p>Well there are pros and cons with it, but I think the pro was you would be getting a good house at the end of the day.</p> <p><Sound of rustling sheets as ASP7 takes out the other precedent>. Well because in {geographical location} - and I suppose on a lot of the jobs I have worked on over the years, a duplex just wasn't very common.</p> <p>Yeah. I worked on one up in {city} once and I thought it made for an interesting space to live in.</p> <p>ASP8 Hmm. Still you, kind of, using adaptable and everything and you still, kind of, want to make affordable; but if it is affordable you don't want people to saving money for this so - {inaudible segment}; that is what I was kind of thinking.</p> <p>The way how they looked.</p> <p>The look of it.</p> <p>Simple design and, kind of, it sits nice in the context and everything.</p> <p>Second one?</p> <p>Second one <sound of sheets turning over>. Everything, like, simplicity - and that they can be - like the design could be in a row and everything or they could be different forms, suitable for -</p> <p>Okay. You mean their adaptability, is that -</p> <p><Yeah.></p>
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Figure 41: Interviews Q2B Design

Themes	Question	Explanation	Analytic Memos	Topic 2: Analysing/Deconstructing the Precedents (Design)	Quotations
2C DESIGN	Frame for the interview guiding script taken from Kress (2010)		I am addressing my research questions - carrying out a mapping exercise - mapping the ASPs meaning making efforts in order to identify the roles and relationships of the multimodal resources they deploy in the meaning making process associated with the precedent study task and review event and the active nature of the meaning making Participant responses were transcribed for readability - thematic antecedent sets the scene for the review observation which is the core multimodal object of analysis		Highlighting, colour and bold font is my emphasis here related to what I heard in the interviews and 'read' during the constant comparative reading process (Thomas, 2016; Salander.....)
RECORDING PRACTICES MAKING MEANING MULTIMODALLY IN ARCHITECTURAL CONTEXT SPECIFICALLY AS INDIVIDUAL - ASPs multimodal recording practices -	QUESTION 3 - here I am exploring the ways the ASPs recorded and decoded the multimodal data (information) they engaged with Outline the ways you recorded what you found out during the precedent study task and show me some examples from your work Steps in the physical and intellectual decoding and recording data connected to the precedents process	Again like question 1 I am exploring what the ASPs have to say about their multimodal recording practices using their presentation materials as evidence - so the interviews multimodal - talking, text, nonverbal and visual modes in play although I am not focusing on mapping that in this study just the review event - issues - did not necessarily find or identify all the salient information from my perspective as an educator - I explored their sources and I found information on the sites they sent me and on other sites I found myself that had relevant and concrete information related to ideology, strategy, and architectural mechanisms (as represented in plans, sections and elevations) that they did not draw on - stated they could not find or they ignored - in some cases used the visual explanations and not the textual - again in the brief they were not told 'how to go about the task' nor were they given all sources of information - normal practice but is it right?	So, what are their recording practices? Using the precedent study as an example the ASPs are engaging with the ways other architectural practitioners use multimodal resources to depict, represent, communicate, direct others to make their architecture - underpins the importance of the other modules on the programme - architectural knowledge/meaning is shown, demonstrated in these representations (multimodal - text, drawing, image, analytical sketch, model) - the how of architecture as well as the what and the symbolism/meaning intended/open for interpretation - so the ASPs are involved in a process of decoding somebody else's representations who may or may not be the designer - different kinds of literature - need to talk about this	Main recording practices - making handwritten notes - rewriting manually helps her to internalise what she is learning, also helps with understanding - active engagement says herself learning by doing person Also, likes to mix between notebook (handwriting) and diagramming based drawings in sketch book - likes lined paper for notes Translating and transducting between modes Recording practice - serves number of purposes - process of translation - 1. reads and looks usually online then 2. translates that into a set of notes, then 3. condenses and translates this information into visual language in the form of analytic diagrams to 'try and figure out', how this theory (reading) could be put into practice universally Took a year out - helped mature learning processes Cutting and pasting initially, then reading and note taking - notes manual initially then into computer environment Translating and transducting between modes - link to Kress, 2010; Bezemer and Kress, 2016; Jewitt, 2009 Process of translation - 1. reads and looks usually online then 2. translates that into a set of notes, then 3. condenses and translates this information into visual language in the form of analytic diagrams to 'try and figure out', how this theory (reading) could be put into practice universally Works in the digital environment in common with peers - searches deeper though in the sense puts in the pdf at end of search term so found more relevant information than other peers Overlaying own visual analysis work on top of data sourced representations - again though many of the visuals are taken and used verbatim without citing - not hiding where information coming from - overall sources are openly shared/shown - there is not an explicit culture of making students cite visual material sourced digitally or otherwise - is this wise? Both inductive and deductive reasoning construct - evidence to come to a conclusion. ... Inductive reasoning moves from specific examples to more general conclusions, while deductive reasoning moves from the general (guidelines) that are known to be true to concrete and specific examples Did ASP3 learn from the data sources he used for the first precedent in terms of how the information was laid out, formatting etc. Again, this is all about the process of decoding and recording Issue around using visual language highlighted by participant Learns through text Learning process Lack of confidence making own sketches - traces over other peoples and personalises which is making own sketches? Roles of drawings and sections - representation of reality in a specific kind of formal architectural drawing used to communicate universally in this context - 'blueprint' (Morton, 2005/6) And yet did not overlay own visual language except for arrows - says one thing and doing another in this instance - lack of understanding? This is the process associated with creating presentation materials. ASP5 has already explained about the talking versus textual explanation in previous question so use that here also - NOTE FOR SELF BOTH ASP5 AND ASP6 GAVE ANSWERS TO A NUMBER OF QUESTIONS WITHIN ONE QUESTION - AND I LEFT IT AT THAT SO AS NOT TO CONFUSE - BOTH HAVE DIFFICULTIES PROCESSING LANGUAGE WRITTEN AND SPOKEN - ALSO IT TOOK TIME TO TEASE OUT ANSWERS FROM BOTH OF THEM SO THE HOUR PASSED VERY QUICKLY AND I WAS CONSCIOUS OF WANTING TO ADDRESS ALL THE SECTIONS WITHIN SCRIPT see question 1 and 2 - process of recording already outlined previously - basically cut and paste and then reading and notetaking around text	ASP1 Most of my recording would have been in the form of handwritten notes. I like to write down the information myself onto - a notebook myself. I always did that even back in school, when I was studying I would like to rewrite stuff. I took it in better by writing myself. I am more of a, learning by doing person, in that kind of way. I kind of mix between - kind of research notebook that I have that I keep all my research in and then when I am going to design when I am doing strategies or stuff - trying to figure strategies myself, I use more diagram based drawings and I do that in my sketch book. If it is just notes written, I like to have lined paper. Okay, again you are working between different modes. Yes. And then you start translating that into visual language? Into diagrams yeah. And does that help you understand? Yeah, I think it does like even now at the moment we are doing - we are trying to figure out strategies for the current project [affordable housing design project] and I am looking through readings I have done and I translate stuff that stuck out for me into note form. And then I condense that down into diagrams afterwards, trying to figure that out, how this theory could be put into practice in a more, vague, no not vague, a more universal way in a sense. ASP2 Yeah, well I start with the word document and then I will take notes, as well, alongside that as to what I think is important. And then also, then sometimes something will jig in my memory, like let's say from the previous project. You know? I remember orientation and what is important and that kind of thing. So, then you have got linkage from past projects. Then I suppose I started to try and deconstruct. Well once I had drawn all of this, I started to deconstruct it as best as I possibly could. Yeah and then I put it into publisher. Because then, well especially the images, and then I will trace over them onto a sheet of paper (printed copy), and then I will go back to the original publisher document, take all the images out and then just leave the text so hopefully, god willing, I can put my work onto the printed sheet alongside the text [reconstruct with analysis superimposed by self-] that I have actually created. Yeah and each time - I think that the more you do, those sort of processes, the more you start to understand what is really going on as well as you spot things. It's interesting. What I would say is that I am very frustrated that I can't use Photoshop properly, it is the time thing. ASP3 Well I gather my information, and then I felt this was all prescriptive and it helped me in describing what I needed. The key points, in terms of what I was analysing like. But to show the actual layouts, I nearly felt like I could just print the plans and having my own hatching and these things on it to really represent it on the wall I found very important. And then as well it allowed me to question some of the issues within each one and to highlight that easily. So as if somebody was coming along and I wasn't there to describe it, that they would have, maybe, some sense of what I was thinking behind it. Yes, so I just over-layered and sketched in to, kind of, show the main walls, the secondary partition walls, and then where the bathrooms were. And then I felt the circulation and the public stairs were the two things that were very relevant to this design; so, they were the ones that I highlighted that were given and things like that. I have done. Up to last year I had some sort of a script but I am finding less and less the need for it. I found this year - this year I found I have become even more comfortable standing and speaking about something once I have the ample work done. But I kind of go against the grain in the sense that I do an awful lot of the work in my head, and analysing and going over, and even when I feel I can do nothing I would always be turning things over. The other one, then, was more of a mish-mash [rustling of sheets as ASP3 moves to the other precedent]. I felt that - all I had was five images. Three of them were computer generated images of the façade, and the finished project; so, I stacked them and then put two images to the right. As one was a cut through [sectional view] 3D image and the other then being the plans that - I felt these were more descriptive so I put them to the right and that led me onto what I was thinking as well. ASP4 Usually I go straight away to a page on PowerPoint to put the information that I find important. Text or images. So, I put everything in and then after I finish all my research I go back to this page and start to tidy up.

Figure 42: Interviews Q2C Design

		<p>another issue has to do with the casual way they plagiarise other people's work - thinking, design expression - plans, sections, elevations, 3Ds without crediting them - implicit knowing within the community of practice that the plans etc. someone else's work and the student 'overlays' analysis on top - not sure if this is ethical or appropriate</p>			<p>I just like to put the most important thing on top. Maybe put everything on the side and start to pick up what is more important and how to put them together. Like I will have like a few - I will go back to my text because if I am gathering information I will try to minimise the information in my text [edit and paraphrase]. Sometimes I type, sometimes I copy the thing that I find and put them in [to the PowerPoint] even if they are just like from here and there. Yeah, I use the measured plans and try to highlight some things. I don't trust that my diagrams will be really understandable.</p> <p>ASP5 Sketch, because I find it better to understand that way, and that with everything, I do it visually. Anything I do, models or whatever, I much prefer them than read text. That's why when I spoke to DST1 and DST2 I thought that they had to be taken from the list. But during my presentation of the precedents they said at the end, and I was quite disappointed because I thought we had to stick with what was said on the brief, they said "well if there was not much on a certain house go find another one online somewhere". And I thought that we had to stick to what they had said on the brief. Okay, okay. And I had struggled immensely with it. Okay, okay. I suppose there is learning there in terms of - how would you handle that the next time? Would you ask? I would definitely ask and if I cannot find much information then definitely change the precedent. So then in terms of the layout, the function, form, space, and materiality, I can see all of them in plans and sections. Okay, okay. And it shows an awful lot rather than a whole line of text telling you about the materials. Okay, okay, that is really interesting. And that's why I broke this down in terms of plans and sections [picking up sheet and pointing to plans and sections on other precedent]. And I really enjoyed doing this precedent besides doing that one [pointing to other precedent - no plans and sections just external 3D imagery].</p> <p>ASP6 Oh! Yeah, cut and paste. These here <sound of rustling sheets> I found the images and I printed them off. And then I traced them out onto the paper because I wanted to produce something myself [precedent one]. So, I light-boxed these onto the paper [pointing to presentation materials]. With [precedent one] I was that enthusiastic about it that I copied the plans. And I coloured it in using a little bit of yellow. I did. The only thing I would say about [precedent two] was don't build it</p> <p>ASP8 So, I am using the snipping tool. And then some of them I am thinking of them, so I kind of re-sketch them to find more the ideas what they are doing, and how they are doing. I am interested in which ones that are saying more information about the ideas for the housing. How do you decide it is useful? Like from this one I can understand that it is the company - for the way how they are building it, like, how they are putting it together. Like for that one I just kind of put them together to show - because from the plans you can really see, like, how they planned. And on these one's you can see is more, kind of, the layout that is visible.</p>
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Figure 43: Interviews Q2C Design








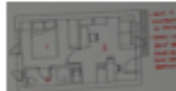
Themes	Question	Explanation	Analytic Memos	Topic 3: Designing and preparing your presentation materials (Production)	Quotations
3A PRODUCTION	Frame for the interview guiding script taken from Kress (2010)		I am addressing my research questions - carrying out a mapping exercise - mapping the ASPs meaning making efforts in order to identify the roles and relationships of the multimodal resources they deploy in the meaning making process associated with the precedent study task and review event and the active nature of the meaning making Participant responses were transcribed for readability - thematic antecedent sets the scene for the review observation which is the core multimodal object of analysis		Highlighting, colour and bold font is my emphasis here related to what I heard in the interviews and 'read' during the constant comparative reading process (Thomas, 2016; Salander.....)
CONSTRUCTING THE MESSAGE SIGN MAKING - DECISION MAKING AND CHOOSING MULTIMODAL DATA MAKING MEANING MULTIMODALLY IN ARCHITECTURAL CONTEXT SPECIFICALLY AS INDIVIDUAL - ASPs decision making around choosing and using modes to construct their message -	QUESTION 1 - about the what and how of decision making around using multimodal resources to construct meaning and as a communicational representation Describe in as much detail as possible how you went about choosing communication modes/materials to represent what you discovered during the precedent study task decision making and selecting process - involving choosing what piece of data in what mode to do what job - linked to prior learning experiences on programme - socialisation into a community of practice....	This question is about what informed the ASPs decision making as they went about constructing representational and communicational materials for the review event that would be a part of their orchestrated ensemble - help them demonstrate they had responded to the task (EVIDENCE) - identified, understood the thinking-strategies-mechanisms and had absorbed them as 'architectural vocabulary'/tools to address the studio brief - use them to build their theoretical framework/conceptual approach -	Decision-making around choosing and using different multimodal communication resources to construct their response/message around the precedent study task to pin and use for review event - also need to say that this piece of work - presentation artefacts are part of the early design process and are added to and evolve - in their portfolio as part of their overall submission for grading So in the analysis process for the interviews I needed to use chunks of text to understand/analyse and show how the answer developed in the dialogue and also link these to the ASPs presentation artefacts as with ASPs and I constantly moved between talking and looking and pointing at/interacting with the artefacts and then back to talking - so similarly to the observation event there is a fluidity in the interaction between modes as meaning is made - KEY NOTE USE FOR ALL - ITERATIVE PROCESS - CONSTRUCTION OF MEANING MOVING BETWEEN DIFFERENT MODES IN THE COMMUNICATIVE PROCESS - WHILST WE TEACH STUDENTS THAT THERE REPRESENTATION MATERIALS NEED TO BE CONSTRUCTED SO THAT EVEN IF THEY ARE NOT THERE THEY CAN BE READ - ISSUE HERE - ALSO NOT WHAT HAPPENS IN PRACTICE UNLESS IT IS A COMPETITION BOARD - MOVE ABOUT THE DIALOGUE, NON VERBAL COMMUNICATIONS, AND THE VISUAL ARTEFACTS... NEED TO PROBLEMATISE THIS IN THE FINDINGS	Decision making informed by a need to ensure presentation read coherently - made a conscious decision to use diagrams and avoid images and if used overlay analysis on top - then second decision is to focus on the bigger issues - macro first and then move into the detail - micro - uses the site plan - macro overlays analysis on top using visual language tools such as hatching and colour to differentiate different points - already said that uses a legend on her sheets so that the reader knows what the different visual tools/marks mean - image shows site plan and legend - also uses text - as headlines, notes, paragraphs Feedback in previous years - prior learning across the programme in all subject areas plus as a result of feedback on what was produced in different presentation environments within the programme - what reads better - coherency - all inform decision making process Took from theory discussion left to right and top to bottom although this is only one common way of reading in the West?   Thinks consciously about how it should be laid out - again on both sheets macro first into micro starts with site plan and 3D visual imagery of reality or virtual reality - like ASP1 overlays analysis using visual tools - colour, - arrows etc. and textual tools - annotation as headings, points, paragraphs -links back to what she did previously - can see the improvement in laying it out more coherently - critical reflection thinking about why  Visual tools used in analysis - arrows, lines, hatching, colour, shading, matrices (legends) Hones in on the visual data in sources to explain conceptual approach - text small scale in sources so relied on visual data - drawn to visual data anyway? Wanting to illustrate that the designers thinking p1 from the outset informed conceptual approach and how the architecture manifested - linked this to middle section where the message is arguably about showing how this architecture could be manifested in a range of different site contexts - moved then to display functional data - number of beds - this info represented in matrix - again a visual mode then down to the representations in plans, sections and elevations which ASP3 analysed overlaying analysis on top of designers representations (all the students did this - happens throughout the programme - taught - what is not happening is   Thinks (reasons?) visually - used/replicated layout of data in source material Recognises and sees the narrative (visually displayed in sources) - reflection/review because states will use it going forward - is this true though?  	ASP1 Okay well I usually - I did it through diagramming so it was plans, sections. I tried to avoid pictures as much as possible and even if I did use a picture I would draw it myself, to do that I like to focus more on the wider scale first and then develop that to the smaller scale. So, you have a coherency in the way that it is read. So, I started with orientation and views and aspects and prospects within the development as a whole and I did a plan for that one. I tend to - when I am analysing I hatch and use colour to differentiate. Between what I am trying to describe - and I do a key in the corner, so that people who are unaware of what I am doing can read my work.  The key and the - I think through doing it before, and feedback on what I done before, has helped me develop that, but also through learning in all the subjects; because kind of you figure out and are told most of the time you need to develop something that it's read better. And I feel like when you have a drawing you can't just put colour on it or arrows or something without indicating what they mean cause that can't be read. And if you have multiples of the same thing, it is gonna be better read. ASP2 Yeah! Yes, you know I try and do this left to right, top to bottom, now whether it works? and I try to lay it out. And where did you get that from? Well really from yourself. Yeah, you know when I look back at what we produced in the vertical project it doesn't read correctly. It is a big mess. But once it had been highlighted, yes. I even tried scanning these again and it didn't work [pointing to presentation materials], again the frustration level. Some people are so successful the first-time round. They come into the library, they scan and it works, bingo! With me no, and then if you left to scan at home, the scanner is not very good. So, I would rather have this format where I am drawing and I have now more or less got it to script. ASP3 The top images [along top of presentation sheet one] felt were very much about their concept and what drove their thinking behind it and how - I felt it showed it very clearly, I think in just six images. Whereas the text is small, would be really hard to read, and unless you went up and studied it you wouldn't be able to read the text. But from a visual sense you can get a sense of where they were looking at from the very outset. And that is the message I wanted to show. Then, I had the middle section which was just showing how these could be laid out for different scenarios of - it could be there for very low density [small number of units] up to the highest density possible that this system could be used for across the board. Then there was a break-down of the number of beds [matrix on sheet] per unit that was relevant to this imagery as well [on his precedent one sheet]. So, this matrix quantified and qualified these images [on his presentation sheet]; so, I felt that was relevant. Then that brought me down to their finished product that I could analyse and do an analysis on. So, it is sort of broken up into three stages in the layout, that read that read from top to bottom, and left to right. Yes, and I didn't have the - and even analysing it now as we are, I have probably learned a lot more in terms of the way I did it and agree with the way I have done it here, whether it is by fluke or by whatever. To bring that forward because yes - because I think yeah it is very much telling the story from the start to the end which is essential. Yeah! Yes, I had to do that with this one. Whereas with the first one there was a lot of it deconstructed so it was picking the relevant information and analysing parts of it. But I felt there was a lot of analysis done - description work though, that I didn't need to go over to a degree, which can have its positives and negatives as well. It can make it easier, but then it's a task for you to deconstruct them, and it is deconstructing deconstruction. And how would you go about that? ASP4 What they asked for, and what I found more important all on about this precedent. And what I think that will help me later, or help others later, to look at the strategies. Okay, okay. So, in the two precedents just talk about them, because they are laid out quite differently. And one of them has an enormous amount of information and text and the other one is relying all most exclusively on visuals [looking at presentation materials]. Yeah because there isn't much information about that [second precedent]. but I tried to put, like, the major points. And I decided to speak about it. I was more confident to talk about it. Okay. And did you prepare notes to speak?

Figure 44: Interviews Q3A Production



				<p>NOTE - SOME STUDENTS ALIGN RESPONSE TO BRIEF CONSCIOUSLY - OTHERS TO WHAT THEY HAVE ANTICIPATED THEY NEED TO SAY - MESSAGE TO ADDRESS THE BRIEF SO FOCUS IS MORE ON GETTING THE MESSAGE ACROSS AS RELATES TO BRIEF - BUT IS THIS TRUE? Chunks of text to show dialogue flow and construction of understanding between asp 3 and I Response tailored to address brief as interpreted Also, tailored towards what may influence designing later</p>  <p>So, in the analysis process for the interviews I needed to use chunks of text to understand/analyse and show how the answer developed in the dialogue and also link these to the ASPs presentation artefacts as with ASPs and I constantly moved between talking and looking and pointing at/interacting with the artefacts and then back to talking - so similarly to the observation event there is a fluidity in the interaction between modes as meaning is made - KEY NOTE USE FOR ALL - ITERATIVE PROCESS - CONSTRUCTION OF MEANING MOVING BETWEEN DIFFERENT MODES IN THE COMMUNICATIVE PROCESS - WHILST WE TEACH STUDENTS THAT THERE REPRESENTATION MATERIALS NEED TO BE CONSTRUCTED SO THAT EVEN IF THEY ARE NOT THERE THEY CAN BE READ - ISSUE HERE - ALSO NOT WHAT HAPPENS IN PRACTICE UNLESS IT IS A COMPETITION BOARD - MOVE ABOUT THE DIALOGUE, NON VERBAL COMMUNICATIONS, AND THE VISUAL ARTEFACTS... NEED TO PROBLEMATISE THIS IN THE FINDINGS Decisions here about what the different modes will do in the presentation - orchestrated ensemble Did not use all of the representational materials she created in her review presentation (plans, sections) Did not ask asp 5 this question directly - answer within answers to other questions Like ASP1 ASP5 reads and then makes manual notes as a starting point - however it has to be noted used textual and visual data sourced almost entirely verbatim - no citing and read from a script (constructed with text taken from data sources) Judgment about what was important to look for linked to ASP5s interpretation of brief the brief is normally introduced verbally with time for questions so it is likely this is what ASP5 is referring to here - elaboration given in studio This is about assigning roles to different visual modes - plans, sections, diagrams, sketch 3D - however again it has to be noted that this student reuses the designer's representational tools and text verbatim almost without citing - very little attempt to "transduct" or translate into own visual language For the most part did not use own sketches in presentation artefacts just in notes - issue here about confidence in own visual language? Pdf found online as well as information on website - 2 main sources of information issue - lack of multimodal materials so stuck with text which not adequate for the analytic deconstruction process Again, though this is about the roles of the different modes and the essential nature of them all being present in the data the ASPs collect if they are to carry out a comprehensive deconstruction of the precedent - how much of this is taught and how much socialisation issue around the researching - I found several pdfs and websites with plans, and interior imagery I think what ASP5 is making a case for is that he tried to break down the material into sections (still using data sourced verbatim) so he could talk about it - did not try to deduce what is going on - only had 3D images All imagery I found by looking at source and searching more broadly - could have deduced design attributes - materials, colours, etc....</p>  <p>Chooses visual language to express all thinking even those things that perhaps the written word might illuminate more easily - explanation - expectation of what tutors expect - visual representation minus text should be able to say it all - is this really true - commonly held belief</p>	<p>I have prepared for this one [first precedent] because there was a lot of information. But I thought it is important to remember to speak about it, but maybe not very important to say on the board.</p> <p>ASP5 <i>Hmm, yeah. Yeah, I went on to the website first and researched about the precedent and read up on it. And then I wrote notes beside what I found was important, and key factors within the house.</i> <i>And what DST1 and DST2 were looking for us to analyse in terms of- precedent wise.</i> <i>And then I looked at what at what sort of diagrams would best represent this sort of stuff [the information] in terms of what they [DST1 and DST2] were talking about.</i> <i>Hm. And I did really quick sketches. Like two minute sketches of what way things could look in terms of the text. How I could explain it, and so I could understand it in more detail. When I first started to research about it [precedents] I couldn't picture the houses, or think what way it was looking, or what way it was.</i> <i>So, when I started writing the notes it helped me to clarify then what I was actually looking for. How I was going to break it down.</i> <i>And how come they didn't find their way into your presentation, all your own drawings? The little sketches? I suppose that was because I looked at- as I got further into the research the diagrams started to improve in it [the research materials] and they were all on their website.</i> <i>Right okay. You felt it was better represented on the website, the ones that were there.</i> <i>Yeah.</i> <i>Right! So, then I found the pdf on the precedent, on my first precedent, which was very handy because it talked about everything in the precedent.</i> <i>And that had the plans and sections and stuff [other visuals and text] in it, and that is when I started to think "well at least now I can get an understanding of the house and stuff". So, then I started to see what is the best way, and [what] diagrams I can use and format, to show I know what they are talking about.</i> <i>And the second one there was very little images on the website at all. It was very hard, I got two images and they were both external perspectives of the front and the back of the house <sound of rustling sheets as ASP5 shows me his presentation materials>.</i> <i>Well I was reading it [the text] for ages trying to get an understanding of it. And because there was no graphical images I couldn't properly get an idea, and I didn't know what I was even talking about, or reading in the text. Literally I was taking notes and trying to pick out the important parts of it in terms of what the brief had required. But they didn't even have- the majority of the stuff that was on the brief in the precedent.</i> <i>The second one [precedent]. I'd spent a lot of time, you see, I had spent a whole day on this one [pointing to second precedent] and a day and a half on that one [first precedent]. I would say the one day was a waste because I couldn't find a thing on it so- looking for it and stuff.</i> <i>But then what I did with it when I did find it, I used the graphics as best as I could and I just tried to- it had all the text on the stuff that is in the house, but I couldn't replicate it or draw it because there was nothing there [images, diagrams, sketches]. So, I just used what I could from the external ones [images] to show what I was talking about in terms of arrows. I found arrows very helpful as they helped me to break up the key factors within the house and show what I was talking about.</i></p> <p>ASP6 <i>I have almost no text no. I suppose- I keep saying it, but because of my dyslexia I don't read an awful lot. So, they [DST1 and DST2] keep telling us that our drawings should be as effective without the text. But there is something about "the picture is a thousand words".</i> <i>You know, and that is a kind of analogy. So, I prefer to use drawings to simply demonstrate what I was talking about. And then at the top of it, I put in a small little bit about the purification plant, and a bigger one about the air exchange.</i> <i>Yeah. Yeah. If at all possible, I will do it in a visual format rather than a text.</i> <i>Yeah. Well with [precedent two] I didn't use a word at all, other than to define that it was a site map and you know- and that was it. I think there are only a half a dozen words and most of them are titles.</i></p> <p>ASP7 <i>Well normally when I am putting the page together I normally tend to start with the far-out image, as in maybe- -</i> <i>Well I would prefer to nearly put a little dot on the map of [geographical location] to show you whereabouts in [geographical location] I am.</i> <i>Okay, okay so you go in from the large into the small [detail].</i> <i>Yes, very much so.</i> <i>Kind of, my first images would be the shape of the houses, the first two images. Then below this you have four different types of dwelling. These would be the plans of the houses that are above them [referring to presentation sheets].</i> <i>There weren't any sections.</i> <i>Well the precedent study I find is- you go along and you find a building or you are given one, one or the other. And- just grabbing as much information that you can on that building, and get it onto a page so others can understand it for what it is.</i></p>
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Figure 45: Interviews Q3A Production




				<p>In architecture/architectural education relies on visual mode and talking mode with nonverbal there unconsciously?</p>  <p>Language processing difficulties - main reason using visual modes but also another main reason message from tutors that as you progress should be able to express it all in the visual media - talk less write less - I NEED TO TALK ABOUT THIS IN THE OPENING SECTION - KEY ASSUMPTION</p> <p>Macro into the detail</p>  <p>What ASP7 hung for the review</p> <p>Relying on plans, images and diagrams - again different expectation - that ASP7 would have plans and sections and 3D and read as related analysis</p> <p>Usually could diagram (deduce using visual media -analytic) how the sections might be from reading the plans</p> <p>Issue about surface versus deep learning approach</p> <p>Verbal communication main mode - inherent weakness in this multimodal environment where different expectations about communication in this environment at this stage</p> <p>Aligned with own approach to design response and for 'learning' generally and about learning to do with the how</p> <p>Multiple architectural mechanisms/devices - wealthy mine of information</p>  <p>Only one precedent addressed for the review - ASP8 constructed two more sheets for precedent 2 after the review and sent it on to me. Also, brought all three sheets to the interview process</p> <p>Interested in the concrete and tangible - how it explains 'how to'</p>	<p>Okay, but you are doing a bigger job than that, aren't you as a designer? You are trying to break it down, and understand how they had an idea and they realised it by using these strategies.</p> <p>Okay.</p> <p>So, would you be thinking about that when you are constructing your message?</p> <p>I probably should be thinking that way, and I probably don't.</p> <p>The talking is still a very important mode of communication for you?</p> <p>I think it would be yes.</p> <p>ASP8</p> <p>Hmm. How I choose them?</p> <p>Yeah. You have got really interesting information on your sheets, but you made a decision to choose those images and that writing so-- you know, how did you go about that, making those decisions?</p> <p>Like I said before, I always, kind of, trying to choose everything what I know will give me more information and about the learning as well because--</p> <p>Because this one was what I choose. This one was saying a lot about it, "oh you can do this, this and this". Like it is better to keep bedrooms at the back than on the front. Keep what you are using all the time downstairs. It was learning because, like, we are still, kind of, students and we need to learn more and more.</p>
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Figure 46: Interviews Q3A Production

Themes	Question	Explanation	Analytic Memos	Topic 3: Designing and preparing your presentation materials (Production)	Quotations
3B PRODUCTION	Frame for the interview guiding script taken from Kress (2010)		I am addressing my research questions - carrying out a mapping exercise - mapping the ASPs meaning making efforts in order to identify the roles and relationships of the multimodal resources they deploy in the meaning making process associated with the precedent study task and review event and the active nature of the meaning making Participant responses were transcribed for readability - thematic antecedent sets the scene for the review observation which is the core multimodal object of analysis		Highlighting, colour and bold font is my emphasis here related to what I heard in the interviews and 'read' during the constant comparative reading process (Thomas, 2016; Salander.....)
<p>-THE MESSAGES - WHAT MESSAGES?</p> <p>-ROLES OF THE DIFFERENT VISUAL MODE TOOLS - PLANS SECTIONS, ELEVATIONS, DIAGRAM, IMAGE, 3D DIAGRAM</p> <p>SIGN-MAKING</p> <p>ROLES OF DIFFERENT RESOURCES - FUNCTIONAL SPECIALISMS</p> <p>AFFORDANCES</p>	<p>QUESTION 2 - examining what 'messages' the ASPs wanted to convey - linked to ideology linked to strategy linked to architectural mechanism</p> <p>Tell me about the messages you wanted the different materials you utilised to convey about what you uncovered during the precedent study task?</p> <p>meaning -making -the messages</p>	<p>Here I am asking the ASPs about 'what' messages they wanted the different multimodal resources they used to communicate in response to the brief - exploring the role of the modes - text, visual... in the ASPs own words - THE MESSAGES - SIGNS</p>	<p>I am looking for evidence of their understanding/learning/knowledge making and the message they wanted to construct - a message that demonstrates all they have learned - MAKING MEANING</p> <p>This is specifically about the roles of the different modes - plans show layouts, arrangements of spaces/furniture position - again there is this fluid interaction between I need to make this point so that visual tool will help me show, demonstrate, provide the evidence - also used to link to strategy informing the use of particular architectural strategy - so plans used to show overall spatial organisation, layout and movement - privacy/security shown in plan and elevation</p> <p>3Ds are being used to show the 'formal' qualities of the architecture - choose different architectural visual tool to explain what she was talking about - related plans and sections to communicate the three-dimensional aspects of the building plus 3D diagrams - axonometric - point choice of drawing related to what ASP1 trying to communicate so if one kind of drawing would not help with explanation process tried to use a different type of drawing - "that showed it from a different point of view"</p> <p>Picked up in studio from tutors that the focus should be more on drawings - plans, sections, analytic diagrams - 2D and 3D rather than simple imagery/pictures - some of this would be taught in studio and some in representation and some in theory</p> <p>Here I am trying to find out ASP1's perception of how she picked up this message about the visual modes</p> <p>Common issue - DIFFERING VIEWPOINTS OF TUTORS - CONFUSING FOR STUDENTS</p> <p>I think this is a critical issue - level of prescription and teaching in brief versus assumption that students should know all these things at this stage which is not a true assumption for many - what is gained by not including these kinds of directions/teaching in the brief - overall less work to leave them out - have to think very carefully about the link between the problem the precedents how you expect them to deconstruct etc. I think this is a key finding for me - that we need to address the studio design briefs much more thoroughly - have already proposed a repository of precedents and problems with associated briefs updated regularly as a way of addressing this - but I am meeting with resistance - time issue rather than an unwillingness to do it - but the time issue would be reduced once we do it once</p> <p>none of the ASPs used models at the precedent study review that I observed</p> <p>Originally the precedent study was to have been a stand-alone task but evolved into something different. I did not have control over this - and I did not interfere in any way with the writing or running of the brief that would run counter to my naturalistic approach</p> <p>ASP1 highlighting a difficulty with using models the visual tools used preferred option - more skill more practice in own mind</p> <p>Still not using the model as a designing tool</p> <p>ASP2 focused on approval here that she has done a good job rather than learning or message? - still demonstrating a lack of confidence around the deconstructing process - walking in the dark - guessing, estimating (deducting) and appears to say that is not the way it should be - certainty is missing - surely that is true of all analysis we are groping?</p> <p>Focus on improving constructing the messages - related to feedback about previous presentations - refining reflecting critically</p> <p>ASP3 talking about overlaying his own analysis on top of the data that is sourced here</p> <p>What is key here in this whole chunk of text is how important 'relevance' is in terms of grabbing ASPs interest and motivating the analysis process - and relevance is ASP3's perception of what is required in the task/ by tutors/inform own work and interest/direction from a design perspective</p> <p>Links to own project thinking ahead - key focus for ASP4</p> <p>Taken from response to another question - in interview with students whose first language not English and the two dyslexic students time evaporated and so often allowed the conversations flow so response to several questions buried in one</p> <p>Did not ask asp 5 this question directly - answer within answers to other questions</p> <p>Like ASP1 ASP5 reads and then makes manual notes as a starting point - however it has to be noted used textual and visual data sourced almost entirely verbatim - no citing</p> <p>Judgment about what was important to look for linked to ASP5's interpretation of brief</p> <p>The brief is normally introduced verbally with time for questions so it is likely this is what ASP5 is referring to here - elaboration given in studio</p> <p>This is about assigning roles to different visual modes - plans, sections, diagrams, sketch 3D - however again it has to be noted that this student reuses the designer's representational tools and text verbatim almost without citing - very little attempt to 'transduct' or translate into own visual language</p> <p>For the most part did not use own sketches in presentation artefacts just in notes - issue here about confidence in own visual language?</p>	<p>ASP1</p> <p>Yes, well it depended on the subject I was talking about so the plans were more about layout, and movement. Whereas where I was talking about privacy I needed both plan and elevation, where the information I found out talked about how they had the courtyard, but they also talked about - like they put windows on the end units because they wanted it overlooking, so I indicated that in that drawing that those windows were put there for that reason. They wanted that sense of security.</p> <p>So, I did mixed types of drawings but the same. So, I used plan and elevation and then for form, you can't just use form in a 2D sense, so I had a section so you see the height, and there was a 3D axonometric, that showed the form very well in that one I brought in. So, where I needed or couldn't explain one idea through one drawing I tried to find another drawing that showed it from a different point of view.</p> <p>Yeah it was deliberate. Well there seemed to be a focus in studio more so on drawings than pictures, and that informed me to focus on that myself, and where I couldn't find the information but they had a picture I would draw it myself.</p> <p>I feel like I was told, or was it though? You see, it kind of differs between people in the way our studio sessions are laid out. We go once to one person and then another and sometimes the feedback can change between the different people.</p> <p>No, it wasn't in the brief, the brief wasn't very detailed in exactly what we needed to do, it just said precedents, and we were given a list and we were just told to analyse two, the layout [for the presentation sheets] was more informed by feedback from other crits and what lecturers seemed to respond to, and how I feel like I can make mine compelling.</p> <p>No. I think that was probably more so a time constraint than anything because we had multiple tasks to do. It wasn't just precedents it was policy research and stuff like that. Although we have never really done models for precedent work. I have in the last project. Yeah and- it is just I also struggle with models to be honest. I find it very difficult to get into- you know get my head space in the right- you know, set up to get it into it.</p> <p>ASP2</p> <p>Well I'd hoped that somebody looking at this [referring to presentation materials on the table between us] would think that I had actually looked at the development and picked out what were the salient points.</p> <p>Well again sustainability, you know, high density build, the before and after, and the attention to detail. You know I have tried to use arrows pointing to the different messages.</p> <p>You made a deliberate conscious effort to make a connection between the text and the actual visuals that you used.</p> <p>Yes, whereas in the past I don't think I had. Again, I think it was you who brought it up, you know, point to something, not just expect somebody to know what you are trying to get at.</p> <p>You know particularly this one [points to presentation materials]. I did really look at what they were trying to do here. You know it is all guess, estimate work. There is nothing hard and fast about it. But anybody looking at that, I would hope, would be thinking "oh well you know she has had a go at trying</p> <p>ASP3</p> <p>I was. I was because I knew I had- I suppose precedent study going back the last two years is probably one of my weaker points. I would be well able to do the study, and I would get the relevant information for myself, and the learning for myself. But in terms of displaying that on a board as a- or on a page, I wouldn't have been good.</p> <p>I just feel that looking back at it I wouldn't have maybe enough of the diagrams on there, or enough layouts done over a plan or something to show the different orientations. And I would look at it and think at the very beginning "yeah, I can see that stuff". I would be poor. I don't know was it laziness or what? That I just never got it down on paper in the right quantity. Or that I never gave myself enough time to get it down or I just- don't know. It could be a bit of both. I don't think of myself as lazy but maybe I just don't leave enough time. And then it is a bit of a rush at the end.</p> <p>Yeah, yeah, and I enjoyed this one more now, especially the first one [precedent]. I just liked the whole typology behind it, and I could get the information.</p> <p>Okay. So, if it grabs your interest, it is easier for you?</p> <p>Yeah, it's easier for me.</p> <p>Okay, and so that's kind of important isn't it in terms of -</p> <p><Finding a precedent that works, or even if I find it- it can grab my interest in a negative way. I will engage with it a lot more as well.></p> <p>Okay.</p> <p>if I find it is completely wrong it can get me worked up that way. I engage with it as well</p>	

Figure 47: Interviews Q3B Production


				<p>Pdf found online as well as information on website - 2 main sources of information Issue - lack of multimodal materials so stuck with text which not adequate for the analytic deconstruction process Again, though this is about the roles of the different modes and the essential nature of them all being present in the data the ASPs collect if they are to carry out a comprehensive deconstruction of the precedent - how much of this is taught and how much socialisation Issue around the researching - I found several pdfs and websites with plans, and interior imagery I think what ASP5 is making a case for is that he tried to break down the material into sections (still using data sourced verbatim) so he could talk about it - did not try to deduce what is going on - only had 3D images All imagery I found by looking at source and searching more broadly - could have deduced design attributes - materials, colours, etc...</p>  <p>ASP6 trying to convey the diversity of the architectural mechanisms Trying to get at what framework was used to deconstruct - did it come from the material student found on the development Negative message - not good solution However not all bad and some of the layouts correspond to decision student is making in own design proposals - AGAIN NOTE TO SELF NEED TO CLARIFY in my writing THAT INTERVIEWS TOOK PLACE A WHILE AFTER OBSERVATION SO THE PARTICIPANTS HAD MOVED FORWARD WITH THEIR DESIGNING Again, reacting in the moment Interested in conveying the mechanism of the house - done in one image though does not appear to have taken on board that we use different types of drawing to communicate different qualities, characteristics of the building Explains the how Explaining what is meant by the how more now The technical detail and design info</p>	<p>ASP4 But if I find something that I can't see any relevance to this [design problem] then I would be slow to engage with it a lot of times. I try always to start from the biggest image, like, site (macro to micro). The same thing I started from the site. I use the image of the site itself, [looking at presentation materials] and then the sketch design [plans and sections?], the images. To explain the big idea behind each precedent. And some of the strategies, the way that they designed it. Yeah. And the main thing what I liked, actually, about it. What you liked. What grabbed your attention? Yeah! Maybe they have more important points on this project but that is what I focused on [big idea behind each]. Okay, and why did that happen? Because I am trying to get some ideas for my project. So maybe I don't focus on everything, I focus on what I like about it. And then I - from that I see something I don't like, but I don't really, like, go more detail on it. I focus more on what I like. And then I like everything I study <speaker laughs>. I don't know if that is right or wrong. Unless it's really, like, the main thing about it is something I don't like, so I don't like the whole thing together.</p> <p>ASP5 did not ask asp 5 this question directly - answer within answers to other questions Hmm, yeah. Yeah, I went on to the website first and researched about the precedent and read up on it. And then I wrote notes beside what I found was important, and key factors within the house. Okay, and how did you decide what was important? Through what was an our brief for studio. Okay. And what DST1 and DST2 were looking for us to analyse in terms of - precedent wise. And then I looked at what at what sort of diagrams would best represent this sort of stuff [the information] in terms of what they [DST1 and DST2] were talking about. So, when I started writing the notes it helped me to clarify then what I was actually looking for. How I was going to break it down. And that had the plans and sections and stuff [other visuals and text] in it, and that is when I started to think "well at least now I can get an understanding of the house and stuff". So, then I started to see what is the best way, and [what] diagrams I can use and format, to show I know what they are talking about. And the second one there was very little images on the website at all. It was very hard, I got two images and they were both external perspectives of the front and the back of the house <sound of rustling sheets as ASP5 shows me his presentation materials>.</p> <p>ASP6 With [precedent one] the diversity. Everything from the green spaces - I tried to put green on the drawings because the roofs were green. I tried to emphasise how much glass they had at the front of it. I tried to emphasise the isolation between living accommodation and working spaces. And I tried to show play areas and safe areas for children and families. I was then trying to show this whole heat flow thing. So, I broke it down into different - what [precedent one] themselves actually talked about. Well they talked about the glass. They talked about the spaces, and the play areas. I am not sure I used the exact headings. But yeah, I talked about it in that sense. With [precedent two]. The message I wanted to get across? I said it before, don't build it. No, the way they divided the space up internally is actually similar to what I am doing myself. Put the kitchen at the entrance. You put your living space at the back of that. On the upper floors then you build in your bedrooms.</p> <p>ASP7 The plans would carry a lot more information, as to the layout of the house or parts. Whereas, the imagery more or less gives you an understanding of the shape of the building. Yeah this I found quite interesting. What I grabbed from this was that these buildings are put together in modular form, but you can also - you don't have to build the whole lot all in one sitting. They do indeed, yeah, yeah. They pretty much show the whole mechanism of the house in one image. You get an idea of the shape of the building. You get an idea of the layout of the building. Yeah. That would be about it. The one thing I did find about the imagery that - I think it could have - or if I could have found it, but it shows a living space, it shows a bedroom, it doesn't show a kitchen.</p> <p>ASP8 information about the building. Yes. The way the two houses are designed. How - what strategies they did, like, for the design, like, for example, and the construction, how they are really, really doing them. How they are made. What services? How they are doing them. Because it is the same, like, this one and that one is about the layout - about the way it sits in the context and - About the services and the Eco, like I said before, and I think most of all you really read about the building like.</p>
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Figure 48: Interviews Q3B Production

Themes	Question	Explanation	Analytic Memos	Topic 3: Designing and preparing your presentation materials (Production)	Quotations
3C PRODUCTION	Frame for the interview guiding script taken from Kress (2010)		I am addressing my research questions - carrying out a mapping exercise - mapping the ASPs meaning making efforts in order to identify the roles and relationships of the multimodal resources they deploy in the meaning making process associated with the precedent study task and review event and the active nature of the meaning making Participant responses were transcribed for readability - thematic antecedent sets the scene for the review observation which is the core multimodal object of analysis		Highlighting, colour and bold font is my emphasis here related to what I heard in the interviews and 'read' during the constant comparative reading process (Thomas, 2016; Salander.....)
SIGN MAKING PROTOCOLS FOR THE ASPS ARTEFACTS MAKING MEANING MULTIMODALLY IN ARCHITECTURAL CONTEXT SPECIFICALLY AS INDIVIDUAL - THE PRESENTATION ARTEFACTS MAKING PROCESS	QUESTION 3 - exploring the process of constructing multimodal communication/r representation artefacts Describe in as much detail as possible how you went about constructing your response and representation including the 2D and 3D materials the 'how' of constructing the physical (artefacts) messages to get ready for the review process	In this question, I am seeking to establish the message making protocols - steps	Process of constructing the message via making the artefacts This is the process of assembling the message - series of steps - use of same drawing to do multiple jobs in terms of analysis overlay - Thought about providing space around the different components of her message so that they could be read more easily The process of constructing the artefacts helped ASP1 prepare for the review event and clarify what she wanted to say and when - specific and concrete role of the constructing message process - different components - textual, visual - image diagram, plan, section etc. plays different part in that solidifies what should do what when communicating - orchestrated ensemble - deciding role of each in orchestrated ensemble in this process Time is an important issue for ASP2 and many other students - question - is enough time allocated to do the task properly from a task point of view and manage expectations around types of artefacts that will be produced - ASP2 is indicating that a model would have helped understanding and using in own designing context here - pointing to the unique role of the 3D physical model here - also issue to do with skill and speed of using different tools associated with the task and the machinery etc. to scan, print etc. Again, this has to do with tutor assumptions about levels third year student is at and student feeling they are not giving time to tasks that would have been allocated much more time in earlier years - understanding is that they can cope with these tasks on their own now and much faster - not the case here - students under severe pressure - prior learning being brought forward and applied and synthesised in later year - most of the ASPs in this group appear to have a serious difficulty with this Again, the time issue - and the relevance of making models as a way of decoding a building - amount of time it takes puts students off - even though these models are not intended to be 'presentation' type rather rough working models - but scaled to explain, understand in 3D Problem with making working rough scaled models Taken from response to another question - in interview with students whose first language not English and the two dyslexic students time evaporated and so often allowed the conversations flow so response to several questions buried in one ASPs overlaid and labelled visual and textual media but taken from directly from digital data source Different layout for precedent 2 because of scarcity of material and to enable it to be read - decision not to link - no corresponding graphic TAKEN FROM Q2- ANSWERS THIS QUESTION ALSO Process associated with constructing message outlined within this answer Framework for constructing the message Process macro into the micro Process of constructing messages TAKEN FROM QUESTION 1 ADDRESSES CONSTRUCTING MESSAGES Macro into the detail Relying on plans - again different expectation - that they would have plans and sections and so and read as related analysis Usually could diagram how the sections might be from reading the plans Descriptive and surface approach to the task illustrated here - lack of understanding what the different 'models' could offer or any sign or willingness to develop skill across these media - base about surface versus deep learning approach Verbal communication main mode - inherent weakness in this multimodal environment where different expectations about communication in this environment at this stage Macro into micro - many students expressed this but maybe interpretation of this different than what was intended in brief which had to do with detailed ways to approach solving a problem of this nature - macro level already fixed - had a site with specific constraints Micro - aligned with brief How laid out Adopted similar layout for both precedents but more info so extra sheet SUMMARY FEEDBACK Segregation of different types of information Different sources of information - synthesized in presentation Again issue about confidence using visual language modes many of the ASPs expressed this even though at this stage there is an expectation consolidating and refining basic skills in place - so problem with this group of students - is this to do with teaching or resistance to practice on part of ASPs??? - time management issue also - slower process of learning - mature	ASP1 So, I went from the information stage of research to drawing them myself, by tracing, and then I scanned them virtual - virtually into computer generated - I went into publisher and Photoshop to create the layout that would work best for what I wanted to do. So, I had the titles organised going from large scale to small scale and I organised them on the sheet to have enough room for each - to have multiple diagrams or one diagram. I brought all them digitally scanned into that format and laid them along the side so I could see which and when - because I have the same drawing in multiple times for different things so they corresponded and they have the same idea. So, they do multiple jobs, but I didn't want them [all the different functions being represented] all on one drawing, so I put the same drawing in multiple times so I could talk about each individual point in itself. And then - I laid it out on the page, to - I didn't want to crush it into one page. Like I could have easily made the drawings smaller and put all of them onto one sheet but I wanted to give enough space so I could actually think about what I am doing. That was it really and then I printed it out, and then after I printed it I already knew from my notes what I was going to be talking about in each. But by drawing on it physically it allowed me even think even further about what I am trying to convey so - that included hatching and analytical diagrammatic tools and stuff like that. ASP2 Because we are supposed to have the sketch plans and sections and we are still at bubble diagrams [to show relationships] stage. And as for a model not a hope and oddly enough, like yesterday I was starting again to get frustrated. Because I am slow, I don't find it easy, this is a huge jump for me actually. Because I am not skilled in drawing and you know none of it comes naturally. All that creative side comes naturally, but not the drawing, and I have to push myself, and to understand even how then this thing is going to be constructed. I have to really think about it. But then I was starting to think oh God I need so many rooms and like there is staircases, stairs in this development. And if I had got the model, I would be able to work out whether I have got enough head height and all of that kind of thing. And, you know, where was I going to put my courtyard? And would it be better at one side, or at the front of the corner? Could it fit underneath my staircase? ...I mean we only got the brief last Monday and it's as though like we have gone, like what's the word? from receiving it to sketch design tomorrow. We skipped bits that we would normally, you know, agonise over. Concepts! A lot of them are still even agonising over what their concept is going to be. I mean I never seem to have that issue, thanks be to God, because you know I think if I was, like, agonising to that degree I would be losing the plot. Now whether, you know, I can follow it through [concept] that's the thing. And I can understand that we have a finite time schedule now. This all has to be done in the next few weeks after Easter. ASP3 The time: But I don't know if any of us have ever produced anything in 3D for a precedent analysis either. I don't think it is an avenue any of us have ever looked at or really investigated the relevance of. And I could imagine it could be very relevant to try and get a model or something built of the precedent. But I suppose time comes into play as well, there is a focus on time. Yeah if I found it - yeah - it was something that I needed to see and I needed to investigate (because) this can have several connotations within mine, I would go down that route. And I could do - I don't know have I? Modelling is something I do enjoy. I am a bit finicky, picky about it for my own good in that if I am model building it needs to be a finished model. Yeah, yeah. I would find that - like models I can just get hung up on things and time, trying to get them exact when at this stage, they don't need to be. They need to be just quick and done kind of thing. ASP4 Yes, more - but I - and even in the precedent presentation I started from here [pointing to presentation materials] to there I think. Okay so you went back from the section, right, right [looking at presentation materials]. Yeah, yeah, to the top, but I still wanted to start from the biggest image. Okay, okay, and in the second one? The same thing I started from the site. I use the image of the site itself, [looking at presentation materials] and then the sketch design [plans and sections?], the images. <Yeah, top to bottom, left to right, yeah. So, I have a small context, then images, sketches and I go like few [power] points and then images to explain them in this way. > Okay, okay. So how do you connect the text with the images? Colour, hm, yeah.	

Figure 49: Interviews Q3C Production

				<p>students, students with dyslexia and students English not first language - all has to be explained by me - because it affects meaning-making and use of modes</p>	<p>ASP5 -- the first thing was the siting of it, and the location, and again the name of the precedent is important so that people know what you are talking about. So, for that I wrote about it and said where it is located, and what sort of house it is. But since there was no site plans I used a 3D image of the house to show it sitting on the ground. Then again it had no landscaping around it, so I couldn't draw it. So, I put it in the way it was on the page [website]. And to show the practicalities of the house I drew the section of the house that I found online. And the plans, and how the plans worked in terms of function and stuff I wanted to show. And then the insulation within the internal house, I wanted to show that in all the plans...</p> <p>Yeah. So, I labelled the diagrams, in terms of, visually, so that people could see what I was talking about, and then wrote on each of them what they were about.</p> <p>In the other one <sound rustling as ASP5 adjusts the sheets to look at the second precedent> that I had struggled to get diagrams and floor plans, I just used an external elevation with text, with arrows, again to describe what I was talking about. Yeah, I laid this one out differently because there wasn't images or I couldn't get the story of the building. There wasn't much I could do besides these two diagrams [external 3D images].</p> <p>I centred the two diagrams in the centre of the page. That way the writing can be read left and right of the page. And since there was a lot of importance on the writing on the precedent I decided to structure it straight down on the left side and the right side.</p> <p>ASP6 With [precedent one] the diversity. Everything from the green spaces - I tried to put green on the drawings because the roofs were green. I tried to emphasise how much glass they had at the front of it. I tried to emphasise the isolation between living accommodation and working spaces. And I tried to show play areas and safe areas for children and families. I was then trying to show this whole heat flow thing. So, I broke it down into different - what [precedent one] themselves actually talked about. Well they talked about the glass. They talked about the spaces, and the play areas. I am not sure I used the exact headings. But yeah, I talked about it in that sense. Well I put the plan, the map of the city of [geographical location] at the top. I put a sectional view directly underneath it. So, you have - the first thing you see at the top of the page - so people read right to left, top to bottom; so, the first thing you see is the map, so this is [geographical location]. Left to right yeah, did I say it the other way round, sorry. First thing is the map. The second thing is the location. Third thing is what is on it [the site]. So, this is what was on the location [pointing to presentation sheets]. These buildings were on the location. The second one I did exactly - near enough the same thing <sound of rustling sheets as ASP5 moves to the other precedent>. The first thing I did on it was the site map, or the site plan. The second thing I did then, was sections.</p> <p>ASP7 TAKEN FROM QUESTION 1 ADDRESSES CONSTRUCTING MESSAGES Well normally when I am putting the page together I usually tend to start with the first image, as is made. Well I would prefer to nearly put a little dot on the map of [geographical location] to show you whereabouts in [geographical location] I am. Kind of, my first images would be the shape of the houses, the first two images. Then below this you have four different types of dwelling. These would be the plans of the houses that are above them [referring to presentation sheets]. And below that then, it gives a small description in 3D form about how the modular sections are put together. And then the bit of text to explain what these images are. The second one <sound of rustling as sheets are reorganised>. All I had was a couple of images. I have the imagery first under the name of the architect. Well the precedent study I find is - you go along and you find a building or you are given one, one or the other. And - just grabbing as much information that you can on that building, and get it onto a page so others can understand it for what it is.</p> <p>ASP8 At the beginning, I do the title. Then I want to show what kind of building we are talking about. Then what strategies can they be used in the - to go deeper like. Then more, kind of, plans and sections to show how they designed. What strategies, and the site to understand more about where it sits. I just kind of trying to put everything together, like, about it. So, it reads nicely, and it's neat. And it was easy to understand the way how everything goes. So, I kind of - this one it was, kind of, more about construction, and this one was more about the services. So, I was thinking they would be sitting together. Like I feel - I feel for my design I need planning, but not all this stuff, kind of, goes for me. I want, kind of, my plans first and then to do perspectives. But I just feel, like, our group is not as highly - how do you say? I was writing for your questions, like, last year's fourth years they are so amazing. They knew everything. They was very good at the sketching. They was very good on the Photoshop. They know how to use everything.</p>
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Figure 50: Interviews Q3C Production

Themes	Question	Explanation	Analytic Memos	Topic 4: The Review Process	Quotations
4A THE REVIEW PROCESS	Frame for the interview guiding script taken from Kress (2010)		I am addressing my research questions - carrying out a mapping exercise - mapping the ASPs meaning making efforts in order to identify the roles and relationships of the multimodal resources they deploy in the meaning making process associated with the precedent study task and review event and the active nature of the meaning making Participant responses were transcribed for readability - thematic antecedent sets the scene for the review observation which is the core multimodal object of analysis		Highlighting, colour and bold font is my emphasis here related to what I heard in the interviews and 'read' during the constant comparative reading process (Thomas, 2016; Salander.....)
THE CRIT SPACE ASPS RESPONDING TO THE CRIT ENVIRONMENT AND SPACE	QUESTION 1 - use of crit space - hanging the work and then positioning oneself in relation to the work Tell me about the ways you went about <u>hanging your work and positioning your model/s in your crit space for the review</u> hanging the work - relationship of asp, space and hung work	In this question I am addressing questions to do with response to the crit environment and or space - I am trying to find out what the ASPs do and if it is purposeful - are they aware that the decisions they make around the hanging of the crit space and positioning themselves in relation to the work has an impact on orchestrated ensemble - also note that asked the first part of the question and then probe deeper as the conversation unfolds - too many questions at the start the ASPs forget what I am asking them	purposeful or intuitive - what knowledge informs decision making if there is any - is it experiential - socialisation - over time of programme etc. - link to multimodality literature and architectural representation and communication literature - Demile 2014; Bezemer and Kress, 2016... Deliberate planning how to use crit space - thinking about message construction and how it can be read both for herself telling the story and for others - also using work in space to stimulate and provide inspiration and memory check - uses a script sometimes as prompt for presentation - by time presenting very familiar with presentation artefacts - narrative and prompting and familiarity with positioning as aid to remembering Time issue - impact of tutors letting people run over allotted time - put ASP1 under pressure - responded by editing her orchestrated ensemble this section is all about impact of not having enough time - response condensing information down to key points feeling under pressure Again, need chunk of text in order to show the flow of the dialogue that provides evidence for the points made about time issue, pressure, condensing information to key points performance issues - also students have a similar contested view of knowledge production and value of different kinds of work within the designing process architecturally speaking -so what student is saying if communicating her designing work would be much more upset if not allowed to explain in detail Review process - how it is managed - for equity - still time needs to be managed Teamwork - talking about and making collective decision about how to use the review space more formal dress code - pitching and selling ideas and self - price working and life experiences impacting on how ensemble is orchestrated - conscious decision to project a certain image Time constraints and issues with printers etc. - managing producing the work and then testing layouts and then hanging - about time management and its impact on finished products as hung affects the orchestrated ensemble The students do not have complete control over how the crit space is organised - tutors decide that - then each student gets a space usually organise among themselves where they are going to sit Time is such an issue for ASP2 - slower process of responding so not ready in time - affects time for printing - preparing to interact in crit situation - affects how ensemble orchestrated no longer does a script - pressure Collaborative working practice across the class - rather than competitive atmosphere - social learning environment Deliberate and conscious planning goes into ASP3 hanging of the work - particularly for formal reviews Links back to self though in terms of being able to use presentation materials during the review process Eye level - universal choice specially for most important artefact Again, thinking deliberately about hanging the work and also about highlighting the best bits - hiding what ASP4 considers to be weaker work Managing emotions/ being prepared Thinking about all members of the audience Highlighted precedent most attracted to Choose where to hang the work based ease of viewing for tutors and everyone else to see it thought about and tried to align with eye level is this true or assumption? - observed experience was thinking also about relationship of self to work - to be able to reach it and point things out (gestures) Response also aligned to brief requirements which often specify layout Stems into visual format - thinking deliberately about positioning the work - although response was to simply to cut and paste verbatim at the time of researching - so not reflecting on work itself Does not spend time considering how to use crit space is what ASP7 seems to be indicating - reactive rather than responsive - decides on the day at the time of hanging the work although does make connection between using nonverbal modes and his work Issue here about quality of work and student's expectations - linked to anxiety expressing perfectionist tendencies here - stops showing progress work? meticulous - needs to feel confident about the work and how it is hung deliberate decisions about placement of the work - eye level- detail etc. deliberate decisions about position in the space as related to being able to connect to work thinking about use of nonverbal - gestures		ASP1 So, I always try to hang the work, the key work I am trying to do whether- always at eye level so that, it is slightly below eye level actually here because I wanted- cause our lecturers tend to sit down, so it would be more on view for them. I always put my newer, well- I usually put the starter work- all my research on that side [left hand side of two boards in crit space] of my board, cause it is kinda left to right again with two boards. So, I have all the- from where I am thinking at the start- I always put that research on that board and I always leave it there because it always informs my work that is going onto the other board. So, for the review I put it up instinctively almost because I usually do it that way, on the left-hand side, because that is where I usually keep all my research based work. And then, yeah, the design itself moves to the other side; so, that would be really where I put that [presentation materials]. Sometimes it depends on what I am presenting. I would make notes for myself about what I am going to say so I don't forget. Whereas for this one [observed precedent review] I found it easier because all the information was on the board and I had it laid out in a way that I could talk about it. Although I found that I didn't do that on the presentation day. Usually I go section by section and talk through it but because I was last and I knew time was running out [coming up to lunchtime and end of review session] I felt like I needed to get to the more important points that I had got from it [the precedent study task]. So, I tried to condense it down, the information, to key points. Yeah sometimes it can be annoying if- sometimes I get very annoyed if I have spent a very long time on it but when its site analysis and precedents I never really feel like that to be honest. I put myself under pressure that day because I had work. So, I was kind of rushing myself in the sense of that. ASP2 Well I just put the two sheets up on the morning of the review, I tried to put something on, regardless of the fact that you were actually filming, I try and have a dress code, because you are not just pitching your work, you are pitching yourself, and I would be used to that kind of thing, you know, you don't just turn up in your duds. Yes. Yeah, you know we decided what level to put them up and then oddly enough ASP5 had put his up first, so, we like it ([balanced]). I would have liked to have done that but this is printed at that stage [presentation materials] and AGAIN, you know like you can't have, the printer broke down. So, you don't know how many print runs you are going to do. Under normal circumstances, yeah you would normally set it up twenty-four hours before. Like that, this should have been bigger in hindsight [pointing at sheets]. But, yeah, it came down to time. I know that we keep saying it. You know, each semester we talk about this time factor. It is frustrating. No, no. It's a question of just putting it up 11.00 am off you go or 10.00 am or whatever, and then you know you are told that there is going to be a fire alarm at 11.00 am so you are losing a half an hour or whatever. I try and make eye contact, if I am not referring to something on the board. I think sometimes it is quite difficult to remember everything that is here [on the presentation materials] as well, when you are under that kind of, because you are performing. And do you create a set of notes for yourself? I have done in the past but I never refer to them now. It's like I am wasting energy and time, yeah honestly! Is it that you get too nervous? Yeah, I think there is an element of that as well. So, I try and know my stuff. ASP3 Well actually it's funny that on the day I had it hung up on the other wall. I had two walls in the space. So, I had it on the first wall because I thought they would read better, and ASP6 said from across the room "I can't see that from here" and when I looked at it I thought it would be better on the other wall. So, I took it down and rehung it on the other wall because he was right, in the sense, from his vantage point you couldn't see it. Oh yeah! And they would have to be straight. And if I was doing a final review I would nearly measure the distance between the pages and have them nicely done that way. The height was my own eye level, because I felt it would be easier to describe, in the sense that if I did need to point at something I wasn't looking for it. Yes, yes. And I felt that somebody sitting, they could be on a high or low stool and it would be then easy vantage for them. ASP4 Yeah. When we have the presentation, we have to put the work up. So, do you think about that purposefully, how you place it or where you place it, or what height it is at? Do you think about those things? Yes. Yeah. Because if I am more confident about something I like to put it at eye level. Yes, if I am not confident about something I just put it down low <speaker laughs>. Sometimes I don't like to do presentations if I am - if I don't like - not prepared.

Figure 51: Interviews Q4A The Review Process

					<p>ASP5 It wasn't the best but I think I covered the main points. I know I am not a good diagrammer, but I think I covered most of the points that I found. In terms of this- - I don't know why- - my first precedent to the left-hand side and my second precedent to the right-hand side. And why did you do it like that? Left to right! In the centre of the board? So, it was at eye level, and it can be seen both by lecturers sitting down, and your camera, which was at the level of you standing up and holding it [the camera]. Really, I wanted it to be read by everybody. And that is all I had on the board, for the precedents, was the two sheets. Because that was what they were focusing on in that presentation on that day.</p> <p>ASP6 Yeah! [Precedent one] was first cause I liked it. It was as plain and simple as that. As for [precedent two] then I don't know what I decided. And then I discussed the [precedent one] and then I moved onto [precedent two]. It was on the long wall so that it was facing you [during observed event]. It was easy for the lecturers and everybody else to see it. It was on the biggest wall facing into the centre of the room. Yeah, I try to put them in, if it is only two objects at a time, put them as close as I can to eye level. Slightly above eye level because you tend to look up rather than down. For this particular one I decided to make sure I could reach it; so, that I could point to something if I needed to. If it is a full board presentation then I would like to put the thing I want to focus on, which is usually the plans, in the centre. But because of the way they insist on them being laid out [direction in brief and studio tutorials] you have to put them where ever- -</p> <p>ASP7 The decisions I make again would be, I would try and [specify] boards in a readable manner from top to bottom, left to right. Again, I would start my presentation from out [in]. Yes, I think I do. I like to put the page that will tell the most of the story, I try to hang this at eye level. So, that the person that reads it can read it comfortably there in front of them. So, you like to have your key information at eye level. Yes. Is this what you did for this as well? Yes, I think I did. Do you think about where you are going to position yourself in your space or do you just do it? I am just a doer <laughs>. Okay. Some people were talking about- - they make sure they are close enough that they can point to the work. Oh okay. Yes, I think it is best that I stand beside my work so that I can, as you say, point at each page and explain what each image is doing.</p> <p>ASPB I think for this one it would be fine. I don't like to put the work on the wall if I am not ready <laughs>. I don't know. I know sometimes it is better to put something than to not put anything, but I am bad person for- - don't like to show shit work <laughs>. Because I am a very picky person actually. I really kind of like everything perfect ([inaudible segment]). I always like that the information- - the layout that it was visible, that people could understand it. And the way how you hang the work it wasn't, you know, like, crooked. You like it straight? Yeah. Do you put it at eye level, or do you think about that? Usually I put it- - it depends on how many words are in it. But for this one? Yeah, at eye level. Do you think about how you are going to position yourself in the space? Himm. How I will talk you mean? Beside my work, I like to come? So, you like to be near your work. Yeah, because I can point.</p>
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Figure 52: Interviews Q4A The Review Process

Themes	Question	Explanation	Analytic Memos	Topic 4: The Review Process	Quotations
4B THE REVIEW PROCESS	Frame for the interview guiding script taken from Kress (2010)		I am addressing my research questions - carrying out a mapping exercise - mapping the ASPs meaning making efforts in order to identify the roles and relationships of the multimodal resources they deploy in the meaning making process associated with the precedent study task and review event and the active nature of the meaning making Participant responses were transcribed for readability - thematic antecedent sets the scene for the review observation which is the core multimodal object of analysis		Highlighting, colour and bold font is my emphasis here related to what I heard in the interviews and 'read' during the constant comparative reading process (Thomas, 2016; Salander.....)
THE REVIEW EVENT IN THE ASPs OWN WORDS - NARRATIVE ACCOUNT - ACTIVE NATURE OF THE MULTIMODAL ORCHESTRATED ENSEMBLE + LEARNING - NARRATING	QUESTION 2 - narrative of what happened during the observed review in the ASPs own words Describe in as much detail as possible what happened during the review process from your perspective ASP's narrative about crit event	Here I am seeking to establish a narrative account of what happened during the crit from the ASPs perspective so that I can synthesise it with what I observed to build up a fuller more holistic picture of what went on from a multimodality meaning making perspective in order to map the meaning making and look at the roles and relationships of the different mode and uncover the active nature of the meaning making mechanisms	Looking to see if habitual ways of thinking about life generally and learning particularly influences how they react/respond in the review process - link to questionnaire responses Want to explore what the ASPs hear and how they react and respond - part of the meaning making/knowledge production process using multimodal resources - none of the ASPs peers commented during the feedback process - explained this is because they have this type of crit weekly - time issue Disconnect when hearing general feedback? - would the message in the general feedback be heard better if the tutors wrote notes about each participant and fed these back amongst general comments (needs whole other level of preparedness for reviews on tutors' part) This is about the critiquing and feedback scenarios - less pressure in informal crit situation - tension between student perception around what they need and tutors - is this about what suits them? - in terms of saving time Informal, around the table discussion much more helpful - why are the tutors not zoning in on this?	ASP1's focus is on her own performance - what she did and the limitations - important to her - shows critical reflection about her orchestrated ensemble - not talking about how tutors responded or how she assimilated that feedback Managing emotions and performance - conscious decision to make eye contact - feels too much going on to think consciously about anything else - nonverbal modes Managing emotions and performance - managing expectations around performance improvement in performing because of practicing Positives around simulated practice situation - benefits of practice Feedback - negative reaction to feedback offered in insensitive way This whole point is about how interaction is handled and feedback given and the negativity around what the student perceives as being aggressive, hostile type of comment/body language - This is something I am passionate about and aspire to not do - I aspire to treat people with respect and kindness at all times - so how much is real how much perceived? Feedback - negative reaction to feedback offered in insensitive way Effects/impact negative feedback given in aggressive manner Reacting because of past experiences - habituated response due to previous negative experiences? (Jungle metaphor surfaced in the questionnaire responses) ASP3 is active as a learner and expresses enjoyment around the crit process prior positive experiences in different context contributing to positivity around crit process Managing emotions Reflects internally - doesn't capture in text though Does prepare - key points - uses artefacts as prompts links to key points - seems to have a natural inbuilt editing process reduces all material engaged with wants to talk about to headlines - remembers the headlines as prompts - doesn't always work Likes to speak naturally and be spontaneous - however it is controlled somewhat - organised spontaneity Not sure this is true - my experience is different - witnessed defensive behaviour aspiring to this more than practicing it all the time I think ASP4 is a singer and used to performing this has a big impact on her response to the crit process - trained to use her voice and body to project message Gets nervous if there are gaps in her response to a task Negative reaction to feedback that is not evidenced based and more personal (perception) This whole section is about giving research/evidenced based feedback rather than what the student perceives to be personal opinion - way it is said as well as what is said - different message comes across Performance issue - managing emotions Taking responsibility for own decisions Staff issue - around precedents generally and parameters particularly Impact of negative feedback - work versus quality issue also Need directive input - not at the level yet where confident making own decisions about how to proceed - links amount of work with projected positive outcome rather than quality of work Responding to feedback - but is this only superficial? How will it change the designing process which is the intention to identify and respond to architectural strategies and mechanisms/devices For this student, ASP5, there is still a disconnect between different tasks - has difficulty synthesising results of one task with another and applying learning in different context in a different way - sees architectural learning about a series of disconnected 'bits of knowledge' not sure ASP5 can put them altogether and use them in a synergetic and creative way to develop his designing outputs Active listening/using memory - being employed here again - main strategy for learning Uses scribe - same person usually How student makes sense of written notes from scribe - highlights words recognises - relates to memory of what was said during crit So, does also talk the feedback through with peer scribe Talks to everyone - discuss what happened - actively engaging benefit - learns from all the other crits actively - issue could misinterpret Negative about crits - is this linked to managing self and dyslexia plus prior learning experience which were negative - from questionnaire Again, different perceptions and values about different kinds of architectural knowledge production Hears and emphasises the negative not the constructive comment??	ASP1 ...So, I introduced the first project [precedent] and I tried to give a basic overview of the project itself of its grounds and criteria and stuff like that and then I tried to go into the key details that I found from it. So, I kinda focused on the modularity of the project and the construction and the form and stuff like that. And then I got a chance to kind of talk about form and the positives and other stuff that stood out to me and some of the negatives that I found in the precedents. But you tend to talk up the positives more so than the negatives and the negatives can be just as important, cause they are sign posts to avoid, more so than anything. You know what I mean? So, I did actually get to talk about the negatives in that one, the last one [precedent one], flexibility in the space in that one. And then in the second one I did the same thing, introduced the project and that was because I had a little bit of information on that one. It was much easier to talk about the project because there was two main key points, the way they wanted to incorporate the car parking space into the structure, and also into the personalisation which I found interesting, so obviously, I talked more about that one cause it felt relevant. No! I know I probably talk with my hands cause I know I am doing it now. I do try - I try and force myself to make eye contact with the lecturers. I try that because I used to struggle with that. I used to read off notes, so that is something I am trying to train myself into creating that kind of connection with the person, so I try to do that, yeah. Not so much the way I stand and stuff. I find I have too many other things to think about to think about that. But the one thing I do is try and make eye contact. ASP2 I mean I have actually written it [in Questionnaire response] I don't, actually get bad crits invariably. I mean I think sometimes I deserve it, maybe if I have been real sloppy or something like that. I think there are various ways of pointing various things out. But I have also said that I believe that you have gone through, I don't mean you personally, I mean all of you, have gone through very, very, hard architectural schools, I mean really tough. Much tougher than I would have been used to in terms of tutor student contact. No I think, yeah maybe it's done for a purpose. Bringing the best out in them but I sometimes don't think that does. I think sometimes a person can become more-timid, or cowered. So, the way it happens is important? Yeah. I suppose I am hypersensitive to it, having experienced it in the past [at work not in higher education]. It's all about, you know, as you keep saying [in Theory class], it's all about past experiences, you know, you go back to your roots, so your past experiences come into play in so many scenarios. ASP3 I enjoy it! I do enjoy it though! From the very beginning in first year I have grown more and more into them and I enjoy talking about them [his designs]. It's not something I get too nervous about anymore. I don't know! I don't know. I have always interviewed well. I found through the years that any interview I went for I got [the job] workwise. I do yeah, and also, I don't mind talking once I get over that initial awkwardness and sensation. I just settle into it and I find I am very calm and I can get my points across... I did, as I said, up to last year. I would have just wrote out and kind of read a small bit; but never in the sense that I have talked to somebody in front of me. I have never gone down that route but I never felt I had to. I don't think any of my crits have been unable to get my point across. And now I am just, kind of, even the day before, the night before, or the morning, just writing down maybe five or six key headings. Now my crit at Christmas I did forget one of them; so, it is one of the things I may need to look at in the year [third year]. Just getting something in boards or someplace, to just have as a reference point to lead me through it. But I find if I script it too much it becomes unnatural for me and I like to speak in a more natural sense and describe things in a natural way. — Yes, but in a more organised-- yeah organised spontaneity I'd put it that way. Yeah. I never had-- even if it is completely negative feedback I would take it as a positive because you know it is not personal. No, it is about the work and I am big enough now, and old enough, that if it needs to be done again or done different I need to know. ASP4 I like to talk about my findings or my design. I have no problem with that. No. Not really. I like to be on stage <speaker laughs>. I used to be on stage, so I like the limelight. Yeah. I like performing.

Figure 53: Interviews Q4B The Review Process

				<p>Awareness of action needing to be taken</p> <p>Prefers informal sessions over formal reviews - ASP7's responses tended to be single sentences - took a lot of time to build up a picture - is not sure the level of depth we got into during the sessions ?? - especially about the work - ASP7 did not elaborate or speak in detail about almost anything - even with probing questions</p> <p>Issue managing emotions - work</p> <p>Lack of time for crit preparation because of work pressure - to get finished task</p> <p>Fear about presenting off the cuff or when not confident prepared</p> <p>Managing pressure - impact on performance of tiredness, feeling not ready etc.</p> <p>reacts negatively to what she perceives as poor work/response</p> <p>Active listening feedback to ASP8</p> <p>Managing perception of expectations - fear, approval???</p> <p>less than perfect</p>	<p>Okay, okay. And so, it has been very useful, I imagine, to you in your life experiences. I think so, yeah, because really, like, I see how others sometimes get really, like, nervous and shaking and everything. Sometimes I get nervous, because I feel maybe that I have information that I cannot speak about or explain, because of lack of drawing or anything, yeah.</p> <p>Yeah. I find it positive in general, unless one of the tutors start to take it very- in narrow side. I think I will dislike it because, like, it is more than opinion. I think it should be. It should be more than opinions or something that I do, like, and you didn't.</p> <p>Yes, because I feel it sometimes, sometimes that the feedback is more on the tutors' style of designing. Or how they like to see buildings.</p> <p>And ignoring the other.</p> <p>They can argue on that because they have more information, they are more like, what you call it?</p> <p>Experienced?</p> <p>I try maybe later to improve my ideas, and that there is like a very similar thing happened and it is right and it is true [precedent to back up argument] and I try to do my research. I like what you call it? I lost the word now- the feedback that is really built on tools.</p> <p>ASP5 I found that the review went well for my first precedent as I was able to analyse it and deconstruct it in as much detail as possible in terms of what they were looking for. And they had positive feedback on it for me. But the second one I found it was a bit harder because I couldn't get much information on it. And I hadn't much visuals to present it. So, I found that one was tough to present.</p> <p>I didn't feel too well after that because while I was presenting it I felt "oh why did I pick that precedent? I should have went with something else or thought of something else other than it, besides it".</p> <p>I feel very down when I get a bad crit. It makes me feel- like, putting in all the work and then that happens.</p> <p>Yeah. Definitely. I would have done a different precedent and I would have found enough- going through the competition entries looking for this I saw some amazing ones that I could have chosen. That had plans and sections of it.</p> <p>ASP6 Well I did my discussion. I made my statements about the different buildings. And then I listened to the feedback from the lecturers. And I looked for questions and I looked for- I suppose ideas about what I had misinterpreted what they were- what they were looking for.</p> <p>And any information that could help me- that might help me in the next crit that I can do a bit better.</p> <p>I look for words inside in the sentences and I try to remember ninety per cent of it [live feedback at review event] and I look for words, for comments and if it was names, I look for the names and that.</p> <p>And she would actually- I talk to people after their crits, and we talk about them, and we talk about what happened. And we discuss how different people got on, and what they said, and what they didn't say.</p> <p>How do you feel about crits? How do you see them?</p> <p>They tend to be extremely negative. Usually.</p> <p>This particular one wasn't because there wasn't a negative element to it in that you were only analysing information. The only negative could be you did the wrong building. You know, so they hadn't an opportunity. But yeah in general terms they tend to be ninety per cent negative. Me personally, I don't like the negative crits. I don't find they inspire me. They do the inverse [opposite].</p> <p>ASP7 I would tend to do far less through a negative crit than I would do through a positive crit</p> <p>Actually, it didn't go too bad. The first precedent page I had about the modular form and off site construction, I thought it had peoples' attention.</p> <p>And the second page let me down. I ran out of time I suppose to make it better [the information on the page from a research/analysis perspective]. I probably should have changed [the precedent] although I liked the building in question.</p> <p>I should have probably changed and found a building that would have given me more information.</p> <p>ASP8 Oh, that day I was really, really, feeling bad, cause I was very tired and because I was tired I nearly cry. Because you know when you are trying to do all the work, work, work, work, work.</p> <p>And that day it was very bad.</p> <p>Oh, I don't like that and like I said I am that person- when I am not ready I don't like to talk.</p> <p>Even though I was reading- but you know when you are tired and everything. You, kind of, start mixing everything up in your head, and you are kind of not feeling comfortable. I did it but it still was- I was ((inaudible segment)). I am just stubborn. You know everything like I saw ASP7's- ASP7 kind of just put three images like on the wall.</p> <p>I don't like that type work, so I rather put something different. I would choose that I would show some information that is useful.</p>
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Figure 54: Interviews Q4B The Review Process

Themes	Question	Explanation	Analytic Memos	Topic 4: The Review Process	Quotations
4c THE REVIEW PROCESS	Frame for the interview guiding script taken from Kress (2010)		I am addressing my research questions - carrying out a mapping exercise - mapping the ASPs meaning making efforts in order to identify the roles and relationships of the multimodal resources they deploy in the meaning making process associated with the precedent study task and review event and the active nature of the meaning making Participant responses were transcribed for readability - thematic antecedent sets the scene for the review observation which is the core multimodal object of analysis		Highlighting, colour and bold font is my emphasis here related to what I heard in the interviews and 'read' during the constant comparative reading process (Thomas, 2016; Salander.....)
NONVERBAL RESOURCES MAKING MEANING MULTIMODALLY IN ARCHITECTURAL CONTEXT SPECIFICALLY AS INDIVIDUAL - ROLES OF NONVERBAL COMMUNICATING RESOURCES	QUESTION 3 - conscious versus unconscious use of nonverbal modes and ASPs perceptions of these modes Please describe your thoughts about how you used the following non- verbal communication modes during your review -gaze (eyes facial expression), posture (bodily), gesture (arms and hands, bodily) and movement (physical use of crit space) using no verbal modes/resources- roles, perceptions	This question is about uncovering the ASPs perceptions about nonverbal communication modes and whether they use these modes/resources consciously or unconsciously	Is it purposeful or not? Or is it partially purposeful? ASP1 links using hands (nonverbal) to demonstrating animation/interest - dynamic - also though can be linked to struggling articulately in words and use hands as a support sees that it could be don't know or didn't describe or explain visually - compensating action - would say this is common Sees gesturing as a way of signposting Not choreographed Falsity of choreographed gestures/movement etc. Feedback - highlighting perception different kinds of feedback at different stages - multiple Perspectives from a range of designers work about the same issue - in this case affordable housing Uses hands while communicating all the time - indicating relies on them Not choreographed - doesn't think about it consciously during the presentation Falsity of choreographed gestures/movement etc. - saying it need to be authentic Mimicking/socialisation into community of practice (CoP) DST2 uses his hands all the time to explain as I do Socialisation Facial expressions, hands etc. instinctual - viewed as positive, stimulating In ASPs: view nonverbal makes the interaction during crits more interesting - loses interest if person too rigid Stimulating, visual in nature - occupies people - distracts? Internalised Does make conscious decisions about how to use space - this is because of background though Performance issues - managing emotions - dyslexia - much prefers to deal with communicative events one to one and design reviews ditto - is this because more in control of the pace, not so intimidating, doesn't go blank etc. Conscious of eye contact - primary nonverbal mode conscious of and using hands to point as a way of explaining something on presentation artefacts - two ways here - one is to point out something and the other is to make gesture with hands - width Preparation plus script The why of the script and why it helps - role of written headlines and text in an orchestrated ensemble Both headline and textual explanation - however text and imagery taken verbatim from sources - not credited - not sure if awareness around this - even though it has been explained and pointed to on many occasions throughout first, second and third year - maybe not repeated repeatedly... Nonverbal mode indicating nervousness - way of staying calm? Bringing prior life/work experiences to bear - does this all the time - is this feature of older student? Does not focus on one person all the time only occasionally - way of coping Sensitive to no verbal language - can put student off if there is a perceived negativity - is this linked to need to engage actively to learn because of dyslexia issue? Does actually - fiddles with glasses puts them off and on continuously - from observation Thinks deliberately about pointing at things on presentation materials - again is this part of the active engagement learning strategy Managing emotions - expectations Writes notes after crit - does this interfere with listening to peers? Part instinctual and part conscious Depends on level of confidence, tiredness, preparedness - if fully ready - confident - then sometimes deliberately thought about and built in Impact of mood on nonverbal communication Gesturing linked to feelings of confidence Feeling negative - clams up physically		ASP1 Well I think it is a good thing. It shows you are animated about something and you are interested. I think when you physically get into the talking of it - I think it shows that you really want to talk about it, and also that, sometimes, it can be like when you are struggling to describe something you, kind of, make up with your hands. Yeah it can be. It depends on what you are doing. It can show that you are interested and it can also show that you didn't know how to represent it in the visual format and then you try and describe it and you are struggling that way. Well, obviously, if you are trying to indicate something you use your hands to show them where to look. If you are not using a linear format - if you are jumping from one place to another you are indicating where to look so that plays a role, don't know much else. No I think it is more instinctual for me. I don't really think about how - No, no it is not like choreographed or anything you know, I walk straight into it. Mm. I don't know actually. I know some people can stand very still, they might not do it at all, and some people do it. It is just in their nature to be very expressive in their movements. I am sure you could be taught but it might seem false. Gestures? Well I am a great one. Instinctual totally yeah. If I didn't have my hands I don't know what I would do. ASP2 I think that you possibly talk with more confidence if you are gesturing to something. You know you can point to something and you know like you, obviously, you would know if I was pointing to something that's completely wrong, that what I was talking about is rubbish. It's like putting the jacket on. Okay. And what do you think about that in terms of it being orchestrated formally? I wonder if it would appear to be false. You know you can see through people who are false and maybe you wouldn't be able to be that kind of see through I don't know. Haven't actually thought about it though. Oh, probably within the classroom. So, all you are doing is mimicking something. Okay, so you would have learned it at school. Yes, or within the classroom here, you know, from DST2 or you, yes. Oh well, I'd say I use everything cause - even my girlfriend, when I am talking she would say even my facial expressions would change a hundred times a minute if I am talking about something. And she is always blagging me. I am doing this when I am explaining (demonstrating) with the hands and everything. ASP3 It is completely instinctual. Half the time I wouldn't realise I'm doing it until I'd see myself, and then go "jeesh, what am I doing?" sort of thing. I think instinctual. With me anyway it is definitely instinctual, it is never something that I have thought about, "oh I'll move my hands at this stage". So how did you learn it? I don't know. I don't know. I think so. I find that if people are too rigid, like from watching them, crits become very monotonous. After a few minutes, you are looking at your phone or something in the background whereas if someone is engaging - Okay so you see it as expressing animation. Yeah, and engaging. No, no. I don't think it is something - I don't feel it is something that is negative for me, or negative for people who are - I am presenting to. I feel it is something that's just - it's just a stimulant. It's something that's - even if they are not completely understanding what I am saying there is the visual stimulation there to keep them occupied. I don't know, I could be wrong in that ASP4 I'd be very natural. And - because you see you are coming from a performance background. Yeah. Yeah, well how to use a space, like tone, change it to focus on the important. Okay so you would change the tone of your voice? Well it is natural now, maybe earlier stages yes. Yes, this is natural in me. I really don't think about it. I think about my position in my space. how it will show the best of my work, make it clear for the people that are sitting in the space. That is all what I think about it. ASP5 Yeah. Well I find within my presentations I get - I find public speaking in general - I am quite nervous doing it. Okay. It's - my dyslexia kind of gets to me.

Figure 55: Interviews Q4C The Review Process

					<p>And I find it hard to speak out in front of everybody, rather than talk to somebody one to one.</p> <p>And I get a bit nervous, and I slip up, and I don't bring up stuff that I should bring up about the work. But in terms of presenting and using my hands and stuff I generally - what I do is, I will talk about the stuff, and I try to keep as much eye contact with the lecturers as I can.</p> <p>But I do then have to refer back to the sheet in the crit to make sure I have the right information.</p> <p>So, I point at it, and say "this is what I am talking about in this section".</p> <p>ASP6 I know what it is. I have been challenged about it on occasions because of - I was a (previous occupation) for years. So, we had to do presentations on a regular basis and I did several training courses, and I am used to standing up and stuff; so yes, I am aware of it. I have never seen myself being filmed. So, I am intrigued to know what my non-verbal communication is like.</p> <p>I try to look at the audience rather than the person. I try to make eye contact now and again.</p> <p>The problem is that it does tend to distract you somewhat, especially if somebody looks totally confused - as to what you are saying.</p> <p><I wouldn't be waving. I don't think I do the waving of the hands. I would definitely point to the drawings and point to stuff like that.></p> <p>I don't know that I do the hand waving gestures.</p> <p>Oh, pointing yeah. I would be calculating what I would be going to point at, and why. So, the pointing would definitely be deliberate.</p> <p>ASP7 It just happens.</p> <p>So, you don't consciously decide you are going to point or anything?</p> <p>No.</p> <p>I do. I would keep key things that I wanted to point out in case the presentation didn't already tell that.</p> <p>Okay. You said at the start of this (talking about the review for the precedent study) that you felt you had peoples' attention. How did you know you had peoples' attention, because that is all part of body language? So how did you know?</p> <p>I think eye contact with a lot.</p> <p>Do you try to make eye contact throughout the presentation?</p> <p>Yes, I do, I think.</p> <p>Would that be the main way that you would read whether someone was interested?</p> <p>It would be my main way yes.</p> <p>Okay. You wouldn't recognise it in any other way?</p> <p>No not really, no. I think eye contact is the main way I would read that someone has - I have their interest.</p> <p>ASP8 Sometimes I realise this <laughs> but sometimes if I - I don't know it depends on the way how you are feeling, your mood and everything.</p> <p>Okay. So, you weren't having a good day that day. So, what did that mean in terms of your non-verbal communications?</p> <p>So, it will be more kind of tentative, this and that ((inaudible segment)) <laughs>.</p> <p>Okay so you actually do think about your non-verbal -</p> <p>If I be like in a good mood, and like, I would be a hundred per cent sure about my work, I would be very verbal. I always talk sharper.</p> <p>But that is your talking.</p> <p>((inaudible segment)) and hands <laughing>.</p> <p>You would be using gestures, right.</p> <p>Sometimes I be just thinking like "they are your lecturers and they know more than you" so I can't be disappointed to be more right or wrong.</p>
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Figure 56: Interviews Q4C The Review Process

Themes	Question	Explanation	Analytic Memos	Topic 4: The Review Process	Quotations
4D THE REVIEW PROCESS	Frame for the interview guiding script taken from Kress (2010)		I am addressing my research questions - carrying out a mapping exercise - mapping the ASPs meaning making efforts in order to identify the roles and relationships of the multimodal resources they deploy in the meaning making process associated with the precedent study task and review event and the active nature of the meaning making Participant responses were transcribed for readability - thematic antecedent sets the scene for the review observation which is the core multimodal object of analysis		Highlighting, colour and bold font is my emphasis here related to what I heard in the interviews and 'read' during the constant comparative reading process (Thomas, 2016; Salander.....)
MANAGING FEEDBACK FEEDBACK AND IMPACT ON DECISION MAKING AND FUTURE ACTION - REFLECTING CRITICALLY AND REFLEXIVELY	QUESTION 4 - managing feedback and impact on future action Tell me about the ways you managed the feedback from your peers and tutors during the questions and feedback phase of the review process feedback - reactions and actions	this question is about critical reflection and its impact on decision making and action going forward	Because she was in such a rush to get to work - just heard encouragement not the finer detail disconnect when hearing general feedback? would the message in the general feedback be heard better if the tutors wrote notes about each participant and fed these back amongst general comments (needs whole other level of preparedness for reviews on tutors' part) Feedback - macro to micro - didn't question though Scribe writing notes for her Focuses in on the bits perceives relevant to her - writes notes if resonate with her Managing emotions/self - expressed nervousness about checking with tutors Managing emotions, sense of self, worthiness This is about the critiquing and feedback scenarios - less pressure in informal crit situation - tension between student perception around what they need and tutors - is this about what suits them? - in terms of saving time Informal, around the table discussion much more helpful - why are the tutors not zoning in on this? Responds to feedback actively Feedback - macro to micro Not checking with tutors - time issue? - doesn't feel has time for reflective/responding process - So how is it internalised the tutors message? There does not appear to be any formal or informal critical reflection on each of the tasks after the review event - left up to individual students Relationship with another student - scribes Key points Feedback related to own key points - probably the fact ASP3 anticipates the questions and answers them is part of this experience The 'how' of the anticipating Constructs messages deliberately in response to brief and expectations around what the tutors will ask questions about - this links to question about constructing messages need to use this there also Active reflective review process - looked at other precedents stored away precedents for this review for future use - compartmentalising Uses the feedback as launch into more research to find evidence to back up feedback and inform work - acting on feedback Relying on memory - although they are taught to keep a journal for design studio and other subject areas - think it is part of the time management issue - are they using time effectively or do we have unrealistic expectations - is the programme too crammed with stuff???? Issue around having to study in foreign language - caught between two stools Misinterpretation Response process to feedback Decision made to source more precedent with more information Action - looked at other peoples' response to different precedents to see anything helpful Action - part of this action notetaking etc. informally to understand and use - not credited though?? During the observation - no peer feedback - not related to observation because of the way studio is run - group review every week Time issue discuss with each other afterwards and crit each other - issue here around 'hearing' relevant feedback - tease out with each other but often end up off track Informal peer review ongoing Time issue around feedback Peer feedback and impact Need for ongoing help from peers - supports issue?? Deals with concrete and specific aspects of crit Directional feedback - concrete, specific helpful active engagement here again Evidence based negative comment heard - negative if perception is opinion - also highlighting issue that is common - one tutor reacts positively to something another negatively - how do you decide? - should they be singing from same hymn sheet? Differing and what appears opposing feedback hard for students to deal with - Strongly emotions - expectations Writes notes after crit - does this interfere with listening to peers? Acts on feedback tries to address the negative comments - found a second precedent Uses memory then writes notes afterwards - relies on self Architectural terminology issue again here for foreign students	ASP1 Oh, the feedback. I didn't really hear much. At the end, they were encouraging in the sense of - to expand on my thoughts - on things more so than what I had shown them in diagrams. And I always feel like diagrams can only say so much in the sense that when you talk about it you can explain your thoughts process towards that in a better way. So, there was encouragement from lecturers to kind of involve - not involve, to expand on what you are showing on the board. Yeah, they kind of finished off on my one I think. It was just kind of a, "good well done!" and then they moved on kind of thing. Well we tend to, get another person to write notes for us on the feedback. Yeah that's what we do and we take that on board. The general feedback for everybody? So, I'd usually take in the information like - that was relevant, that I hadn't thought about myself when I was doing mine that might have come into play. In terms of ways people went about it or other ideas other projects had that were interesting. And I tried to think about them. I usually write them down into my notebook if I feel like they have resounded with me, yeah. I don't know I feel very - I don't know. I am - I wouldn't say I am intimidated but I am nervous about asking them about that. I don't like asking them about my projects. But I really want to know at the same time you know what I mean? But I am nervous about asking about it. You see they don't do the personal one on one thing. No. Studio every Monday and Thursday is always a review, every week. And we brought it up with them that we would really - actually on Monday we did one were everyone sat around and discussed and I found that very beneficial. Because it was a more relaxed environment and I think you feel less pressurized to be right all the time, you know, if you are voicing your opinions, and you don't mind if you are wrong because it is less pressurized. First of all, I made a complete muck up right at the end. Just as I was printing this out I'd discovered there were digital sections on the website that I could have included, not sections, but like drawings, there was no size or scale or anything like that. Now I know that there was exterior space in this but if I had had that, and DST2 picked up on that. Yes, yes, and the first thing I did was to download them. Oh, I did, absolutely, along with the (ASP6's precedent). This is going to be my prototype, it's where I am going. I am going to have to use somebody else's. No. We had a, it was actually a good positive studio session on Monday. But we didn't return to any of this and really though they are seriously pushing us to move on and get some plans and sections [sketch design proposals] on the wall. And get a scheme together. Get this concept up and running. Then I think they would be quite happy if you used, you know, one of the precedents that others have. Yeah. So, we just take key points and - I remember a lot of it and go through it, but then again, I have the notes if there is something specific, I have the notes there. Oh yeah! I would do. I take it, what they are saying. I don't know whether it is a good thing or a bad thing, but I've always found that my crits are always relatively short and very point orientated, that the lecturers would have. They might be the key things that I hit on, that they say. Yeah, I kind of go into it with the mentality of "answer their questions before they can ask them". ASP2 Yeah so, I would be looking at it when I am doing my whole thing [the task-presentation preparation] and saying "right they are going to ask - they are going to want to know this, so I need to state why I did that". And the why, and the why, and the why, and I try to explain that within my presentation. I think so, yeah. I kind of explained and went through this - as the why I put each thing on the board. So, it wasn't just putting something on for the sake of filling the gap on it. I felt that everything on it needs to have a reason to be on there [presentation sheets], had a reason to be on there, and everything that I needed to express systematically why they were there. And I felt I did that, and they pointed out some things that I missed. But I said that's very good because that's something - I completely had missed it. Then they showed - I felt they were positive about the analysis in general. What I did was, I've looked at other precedents now and took what I had. I haven't gone back to this now in fine detail since, but I know when it is coming on to it I need to it. Yes, yes, because I know I will come back to this precedent and try to figure out more on it. So, as I didn't feel I needed to run off specifically and do it straight away Not all the time [in terms of scribe]. It is just, like, myself, like, I forget usually to do this. When it is like a main thing will happen [formal review] like specially for the middle of designing or - ASP3	

Figure 57: Interviews Q4D The Review Process

					<p>Usually I pick ASP2 because she is a very good writer and she is maybe the best to understand [for ASP4] ideas.</p> <p>Yeah. And she picks up on names and spaces more than others. She is very good on language.</p> <p>ASP4 I try to like go research the notes or find evidence. It depends on the notes, what should I do, like</p> <p>I just keep it in my head because any notes I hear actually it just start to go round like a spiral in my head. I start to think about it day and night <speaker laughs>. Yeah research and go, like, look for what they want too, because I will be thinking in deep really what I am doing, and when I get the notes, especially if they are about lack of information or anything, I will give them that.</p> <p>Yeah, but I should take notes down, I know that also.</p> <p>I lost my language now <speaker laughs>. I can't - I can't think in my language now, but I say - and my English is very, very, poor.</p> <p>No I can't say I think in English or my language now because it is very new language, but I am not able to compare it even in Arabic language.</p> <p>They have this purity of language in English, so yeah, I feel that I lost my tools really this way. I am not the person that translates everything. I try to understand in English.</p> <p>If I am very lost I would translate one word.</p> <p>And sometimes it's very bad because I keep understanding something in wrong way until I go to translate it.</p> <p>Yeah. ASP2 does it for me and I do it for ASP2.</p> <p>And I do get her to take notes, and then I go back on her notes at the end of every studio.</p> <p>And I go back on what I have to improve on and change and work on.</p> <p>... okay now the second precedent now is practically gone. I am going to change it, and I am going to do a new precedent throughout the process of the design.</p> <p>Then I went about - I started to look at other ones [precedents] that other people [colleagues] had suggested to me, that were good designs for living spaces as well.</p> <p>ASP5 Yeah, taken notes and, yeah, go through it, and picking out the important points and putting diagrams to them.</p> <p>...But we don't tend to go in on somebody else's because we leave it for DST1 and DST2, more so.</p> <p>But we tend to crit each other throughout, in studio doing our own work.</p> <p>No, maybe they have done something different than you have done and they want to know why you have done it that way. And maybe their one works and they tend to ask you why did you do this? Today for instance, now we are at sketch design on the project and I had done my sketch design [proposals] over the weekend. But I made some of my rooms too small, and ASP3 had noticed it earlier, and he came back and he spoke to me and said "I think it is too small" and he is right, it was too small, because DST1 and DST2 spoke to me about it in studio.</p> <p>Oh, I would - usually take it on board and the crits are usually pretty concise. In other words: "you cannot put four bedrooms on the ground floor of a single storey apartment" so, you know you have to move the bedrooms upstairs.</p> <p>That is a stupid example, but you see what I am saying?</p> <p>It is concrete, just black and white. You do this, or this, or this.</p> <p>Well you would use whatever information they had. You would use the complete components and you would build on them. For example, we had a crit this morning, and they pointed out to me that the law has changed now, and all bathrooms must be on an outside wall.</p> <p>Okay - I read and I listen to what the crit is, good or bad.</p> <p>ASP6 And I probably respond to myself, disappointed maybe, a little bit.</p> <p>That I hadn't done more. I also listen, and quite often get told about something that I have overlooked, I didn't see in my presentation.</p> <p>Occasionally ASP2 has taken notes, but generally no I don't.</p> <p>The minute my crit is over I'd grab my pen and paper, and I'd make a few notes.</p> <p>No. I always kind of - at the review, like, I always put the notes for myself and then I just go back and I just fix the points what they are saying.</p> <p>I just kind of - everything, like, really, I taking in my head and afterwards just to rewrite it to get everything down. In this one they were saying find a second one, so I just found a second one [another precedent].</p> <p>ASP7 English. Sometimes if I am really stuck or the word I can't put in English but - I think in English but -</p> <p>it is, kind of - before it was harder, like. When you {are} just beginning like you know.</p> <p>But now kind of I am trying to use English, but some words, you know, like, architecture has specific words.</p> <p>ASP8 Himm. I don't know. We are students we still need to learn everything; so, I think you still need to like hear everything what the lecturers they are saying. If we knew everything so well, so really, we shouldn't be here then <laughs>.</p>
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Figure 58: Interviews Q4D The Review Process

Appendix 1D: Multimodal Observation Transcripts

Appendix 1D1: ASP10 Multimodal Observation Transcript

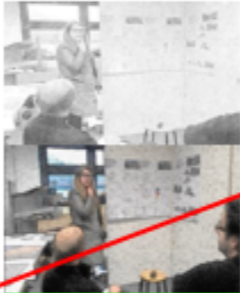


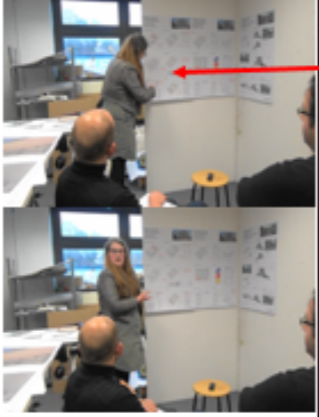
Multimodal transcript	Architectural Student Participant 1 (ASP10)	OBSERVATION	VISUAL	nonverbal communication – note - PARALINGUISTICS -use of volume, pitch and tone - intonation, pitch, quality of voice (Gorden, 1980) - did not focus on this to any great degree unless noted in dialogue - probably because of my deafness hard to pick up unless it was really emphatic then I noted it in the transcription	NOTES TO SELF
Dialogue and sounds	Videotape segment	NOTES TO SELF	Visual modes segments from presentation sheets and close up visuals relating to what the asps interacts with during the orchestrated ensemble		
	Video tape 8.43 minutes - interesting because ASP1 expressed feeling rushed when in fact her presentation is as long as many others - however several students ran over time by 6-10 minutes so this may have contributed to her feeling rushed				
GENERAL NOTE Each asp given two precedents to look at in the brief, most of the participants expressed difficulty sourcing information online – does this highlight issue with the background work done by the two tutors? - should have been able to get direction about where to look if stuck - is this an acceptable practice?	ASP1 does not use a hand held separate script or set of prompts			asp1 stands in her crit space near her presentation artefacts 2 tutors are sitting in front with sight line along a diagonal with her two boards. ASP1's peers are behind the tutors and the drawing boards out of my line of sight. I am standing behind the tutors videoing the crit and the supplementary audio device is running on a stool in the middle of ASP1's crit space	PROXEMICS - use of interpersonal space - how space is organised - seating arrangements, distance between presenter and peers and tutors (Gorden, 1980) CHRONEMICS - use of time - amount time each person gets and also relates to - pacing silence (Gorden, 1980) KINESICS - use of bodily movements - hands, facial expression, legs (Gorden, 1980)
	SEGMENT 1		Attempted to turn video clips into sketches thinking about anonymity - not successful because losing the detail		
DST2 Housing pods, is that what they are, kind of? 57.06(00.28)		0.28			ASP10 faces DST2 making eye contact. She touches her chin with her right-hand forefinger and thumb. She is standing to one side of her presentation materials
ASP10 Yeah! They are. They are one, like, bedsit , almost. 57.08(00.31) WHAT SHE IS SAYING		0.31	Roles and process indicated here from architectural and multimodality perspective (Demie, 2014; Bezemer and Kress, 2016; Jewitt, 2009; Kress, 2010)	HOW THE VISUAL MESSAGE IS CONSTRUCTED AND USED AS REPRESENTATION – DIFFERENT KINDS OF SEEING – AS ITSELF, REPRESENT ARCHITECTURE AND HOW IT IS COMPOSED	Then ASP1 turns back to her presentation sheet to describe (verbally) what the unit contains using the presentation materials - plans and sections as prompts for herself. Her right hand is bent in an upward position and pointing at the presentation materials as a way of emphasising what she is describing
ASP10 Er, they have a bedroom , em, a one living space including a galley kitchen and seating and storage space and - and then just an en-suite bathroom and shower , essentially. 57.20(00.43) Using architectural terminology here and above – possibly deliberately as it is an explicit and implicit academic expectation – part of the rules and conventions of this CoP – link Kamler & Thomson (2014).		0.36 0.40 (12 secs)	ASP1 uses and physically interacts with the plans to show and support her explanation about how the spaces are laid out - superimposes hand on the plan in the bottom left hand (LH) corner of her presentation sheet and looks and probably 'reads' (analytically and literally) the plan while explaining - also happens during the task of deconstructing the precedent and constructing her message prior to review (look to interviews for evidence of this) explained in interview goes through a process of translating by means of writing and drawing either by overlaying or by redrawing to understand	INTERACTION BETWEEN VISUAL VERBAL AND NON-VERBAL MODES ASP1 still standing to the left of her presentation materials Cluster of nonverbal modes in play as well as a cluster of multimodal resources – as orchestrated ensemble – link to Baden Ian Eunson 2015 and Multimodality literature	ASP1 moves in and bends down towards her presentation sheets and inclines her head and looks at materials as she points to a plan in the bottom LH corner superimposing her hand with pointed finger on top of the plan in the left-hand corner to emphasise and illustrate her verbal description of the housing unit layout Use of gesture – interacting physically with presentation materials WHAT SHE IS DOING
			I added this image for clarity for self		

Figure 59: ASP10 Multimodal Observation Transcript





	Dialogue and sounds	Videotape segment	NOTES TO SELF	VISUAL	nonverbal communication	NOTES TO SELF	
		SEGMENT 2			PROXEMICS - use of interpersonal space		
ASP10	<p>So, their - their whole driving force is to create these portable units that were sustainable in a sense that - sustainable and adaptable in the sense that they could be, essentially, used on any site. 57.33(00.56)</p> <p>Using architectural terminology here and above - possibly deliberately as it is an explicit and implicit academic expectation - part of the rules and conventions of this CoP - link Kamler & Thomson (2014).</p>		<p>0.47 This 11 second segment shows ASP1 predominantly talking and gesturing over interacting physically with the visual language represented in the presentation materials during review event (used by ASP10 as prompts rather than interacting with them physically throughout - perhaps not tuning in to their affordances potentialities fully - link to Bezemer and Kress, 2016) - again is there an assumption the two tutors can see and read the visual materials in their seated position?</p> <p>0.56</p> <p>(11 secs)</p>	 <p>Presentation sheet 1 - Precedent 1</p> <p>Presentation sheets - just 2 - most of the drawings on the sheet given equal weight - except for the one in the middle below which stands out / foregrounded because it is coloured in using primary colours - roles visual</p>	<p>ASP1 pauses at the beginning of her explanation and in the middle - appears to be searching for the appropriate architectural terminology</p>	<p>ASP1's head is tilted in an upwards direction as she looks to the presentation materials - signals she is paying attention to the presentation materials - also both tutors seem to be following her directional gaze and reading from the presentation materials</p> <p>The she turns her whole body towards the two design tutors and makes eye contact with them. Her arm is folded across her abdomen with her hand held in a pointing gesture back towards the presentation artefacts</p>	<p>Using a range of gestural and directional movements - (what and why) to signal attention her attentiveness to her work (presentation materials) outputs and also to direct attention to materials - this shows the multi-layered nature of the</p>
		SEGMENT 3					
ASP10	<p>So, they, em, are factory made off-site em, to a high degree in the sense that they're highly insulated, em, how do you say - forms that er, hand - are stacked on top of each other. 57.54(01.17)</p> <p>EXPLAINING AND ANALYSING (DECONSTRUCTING) WHAT, WHY, HOW</p> <p>DYNAMIC INTERACTION BETWEEN TALKING, SHOWING WITH PRESENTATION MATERIALS AND DOING WITH NONVERBAL MOODES</p> <p>So, everything is included and put in off-site. 57.57(01.20) They have their water, their er, electricity and everything, em, installed off-site so that when they come to site they can be plugged in to a mains and site. 58.07(01.29)</p> <p>Em, electricity and stuff like that. 58.10(01.32)</p>		<p>1.01 in this 31 seconds segment ASP1 continues to use talking and gesturing over physically using the visual materials represented in the hung artefacts during review event (ASP10 using them as prompts rather than interacting with them physically throughout - perhaps not tuning in to all their affordances potentialities as a mode fully - link to Bezemer and Kress, 2016) - is there an assumption the two tutors can see and read (mean in an analytical sense) the visual materials in their seated position - DOES THIS NUMBER TIMES IN THE PRESENTATION</p> <p>1.05</p> <p>1.19</p> <p>1.27</p> <p>1.32 (31 secs)</p> <p>Above illustrates what ASP1 is DOING</p>	 <p>Presentation sheet 2</p> <p>IN THIS SEGMENT NOT INTERACTING WITH PRESENTATION MATERIALS PHYSICALLY</p>	<p>ASP1 pauses towards the end of her dialogue - again she appears to be searching for the correct terminology to describe the activity architecturally</p> <p>ASP1 tilts her head upwards and gazes at the presentation text and imagery and appears to be reading (reading as deconstruction not verbatim) them as prompts to guide her explanation and description of process. Also, she moves her hands as she searches for the right words - open handed gesture towards presentation materials</p> <p>Continues to gaze at and read from presentation materials arms across her abdomen. Looks at, and then tilts head up (some of the reading process is descriptive some analytical)</p> <p>ASP1 turns her whole body towards the two design tutors again and makes eye contact with DST1 mainly as she iterates other salient features of the housing units' layout. She emphasises her explanation using her right hand and bent arm with open palm and pointing thumb facing towards her presentation materials turns away again and uses the presentation materials as prompts 'reads' information off the different drawings including plans, sections, diagrams etc.</p> <p>DIFFERENT KINDS OF INTERACTION - ROLE</p>	<p>Again, Dynamic interaction between modes going on here - although the visual materials are not being interacted with physically and also because of prescriptive direction about how they were to be constructed (class based instruction) limits how the different types of media can be USED to best effect - (benefit of using the multimodality lens as a way of learning about modes - literacy issue) again to do with affordances and potentialities - link this to analytical frame</p>	

Figure 60: ASP10 Multimodal Observation Transcript

	Dialogue and sounds	Videotape segment		NOTES TO SELF	VISUAL		nonverbal communication		NOTES TO SELF
		SEGMENT 4							
ASP10	<p>Em, on the ground floor, which is the only plan I could find in terms of context, er, the - this unit, and this unit (referring to presentation materials), their ground floor space, towards the street, em, which I was questioning cause if they were trying they said they wanted to create this, kind of, community with a green space in the centre. 59.01(02.24)</p> <p>Questioning the validity of the designers claims about creating a community –</p> <p>Using architectural terminology</p>		<p>2.14</p> <p>2.21</p> <p>2.22</p> <p>2.24</p>	<p>reading information off the presentation sheet - looking at the sheet and away from design tutors to 'read' be 'prompted' – INTERACTING WITH PRESENTATION MATERIALS</p> <p>illustrates what ASP1 is DOING</p> <p>two design tutors lean in to look at where asp1 is pointing to on her drawings and 'read' the information she is pointing to GARDENS TO FRONT OF UNITS COLOURED RED ONTO STREET – DOES THIS WEAKEN LINK TO COMMUNITY SPACE IN U SHAPED OPEN SPACE?</p>		<p>ASP1 still stands to the left of her presentation materials – close enough to physically interact with them – in the interviews students expressed a deliberate focus on doing s</p>	<p>CHRONEMICS – use of time including pauses</p> <p>Again, pauses towards the end – appears to be gathering thoughts – not interrupted</p>	<p>KINESICS – use of bodily movements - hands, facial expression, legs (Gorden, 1980)</p> <p>ASP1 is turned towards her presentation materials with her head in a tilted position to gaze at/ look at and 'read' from site plan which she has superimposed colour on as a way of analysing and explained in a legend – her left hand is superimposed on the drawing itself and her right hand and arm is held by her side</p> <p>As she speaks she half turns back towards the two design tutors and makes eye contact by looking sideways one of the tutors is leaning in to hear and see what she is saying – she is using her hands as part of the explanation</p>	<p>Using a range of gestural and directional movements – (what and why), to signal attention her attentiveness to her work (presentation materials) outputs and also to direct attention to materials – this shows the multi-layered nature of the interaction</p>
ASP10	<p>Em, these houses face towards the street. 59.04(02.27) But then I was thinking that was for - to maximise the natural light essentially on this side where it would be shaded from the three story here (referring to presentation materials). 59.14(02.36) Em, then I kind of -</p> <p>USING ARCHITECTURAL TERMINOLOGY – ATTEMPTING WHAT, WHY AND HOW PLUS JUDGEMENT – WHAT IS EXPECTED</p> <p>NO GUIDING SCRIPT – USES PRESENTATION TO GUIDE HER TALKING/EXPLAINING</p> <p>ROLES OF VERBAL MODE MEDIA</p>		<p>2.32</p> <p>2.37</p> <p>(23 secs)</p>	<p>two design tutors lean in to look at where asp1 is pointing to on her drawings and 'read' the information she is pointing to</p> <p>ASP1 uses and physically interacts with the site plan to show and support her explanation about how the spaces are laid out - superimposes hand on the plan in the top left hand (LH) corner of her presentation sheet and looks and probably 'reads' (analytically and literally) the plan while explaining - also happens during the task of deconstructing the precedent and constructing her message prior to review (look to interviews for evidence of this) explained in interview goes through a process of translating by means of writing and drawing either by overlaying or by redrawing to understand However here she uses the wrong type of drawing needed site section</p>		<p>REFERRING TO A SITE SECTION HERE WOULD HAVE HELPED HER 'SHOW' WHICH PART OF THE DEVELOPMENT 3 STORIES AND WHICH PART 2 AND HOW ONE 'SHADED' THE OTHER -NOT USING RIGHT DRAWING TO EXPLAIN BECAUSE SHE DOES NOT HAVE IT ON HER SHEET -LITERACY ISSUE HERE AGAIN</p> <p>ROLES OF VISUAL MODES</p>	<p>ASP1 is turned towards her presentation materials with her head in a tilted position to look at and 'read' from site plan -her left hand is superimposed on the drawing itself with her little finger pointed at and sitting on the plan and her right hand and arm is bent and held by her side</p> <p>As she speaks she half turns back towards the two design tutors one of whom is leaning in to hear and see what she is saying – she is still using her hands as part of the explanation - her forefinger is not pointing at and resting on the drawing- her head is also half turned and inclined towards the two tutors so she can make eye contact</p> <p>ROLES OF NON-VERBAL MODES</p>		

Figure 61: ASP10 Multimodal Observation Transcript

Appendix 1D2: ASP20 Multimodal Observation Transcript

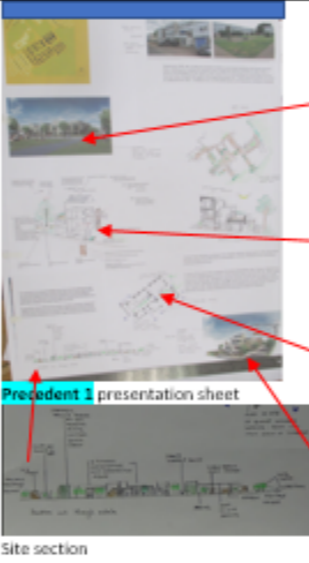

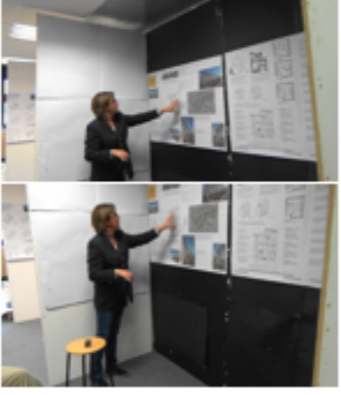

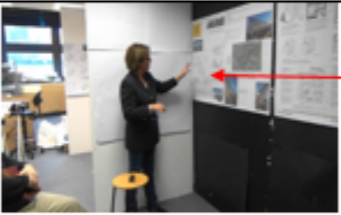

ASP20	Multimodal transcript	Architectural Student Participant 2 (ASP20)	OBSERVATION	VISUAL	NONVERBAL	NOTES TO SELF		
	Dialogue and sounds	Videotape segment SEGMENT 1	NOTES TO SELF	Visual modes segments from presentation sheets and close up visuals relating to what the asps interacts with during the orchestrated ensemble	nonverbal communication – note - PARALINGUISTICS -use of volume, pitch and tone - intonation, pitch, quality of voice (Gorden, 1980) - did not focus on this to any great degree unless noted in dialogue - probably because of my deafness hard to pick up unless it was really emphatic then I noted it in the transcription			
		ASP2 does not use a hand held separate script or set of prompts – link to interview	ASP2 presentation sheets – sheet for precedent 2 uses mainly large scale visual images with a large 3D site map in the middle and text beside and below – expresses she had difficulty getting right kind of visual data – precedent 1 - images on top of page and then 3D sectional perspectives with exploded view in middle with site plan to upper right and text below and to side of images site section along bottom with visualisation - does not have plans for each of the units layouts – again expressed difficulty – did not work them out deductively as zonal diagrams – much of expected information not present	 Precedent 1 presentation sheet Site section ORGANISED LEFT TO RIGHT TOP TO BOTTOM	PROXEMICS - use of interpersonal space - how space is organised - seating arrangements, distance between presenter and peers and tutors (Gorden, 1980) L-shaped configuration - ASP2 choses to use the board facing into the centre of the room - optimising the number of people who could view her work head on. The two tutors are seated about three feet away from ASP2 and about five feet from the presentation materials - ASP2 stands to the left of her work with her back to the L board projecting into the studio - from my observation on the day it appeared to me the pauses are related to the times the student needed to time to gather their thoughts and frame what they wanted to say next - on many occasions tutors/students interrupted this process - I had not noticed or connected these pauses, repetitions, silences with THINKING in this way before the observation			
	ASP2's presentation is 8.53 minutes - usually around ten minutes is allotted for each student - as I have said already this was not adhered to- like all her colleagues there are pauses/silences throughout her presentation	 Precedent 2 -ALMOST NO OVERLAID ANALYSIS JUST IMAGERY AND TEXT – NO PLANS, SECTIONS...	ROLES OF VISUAL MEDIA			like all her colleagues ASP2 uses a variety of gestures - changes of facial expression to indicate attention and interest, hand gestures accompanying her talking, touches her hair with her hands possible sign of nerves, composing herself, uses hands to point towards the presentation materials and to superimpose hand gesture on these materials when pointing out something specific she wishes to highlight - many pauses, movement to and away from tutors	Using a range of gestural and directional movements – (what and why) to signal attention her attentiveness to her work (presentation materials) outputs and also to direct attention to materials – this shows the multi-layered nature of the interaction	
	Em, anyway, em as you can see [referring to presentation materials] they've - from what I gather they've got a green - a nice green field area around them. 48.16(01.20)		1.20 ASP2 uses and physically interacts with the site plan to show and support her explanation about the green space -she superimposes her hand on the plan in the top middle section of her presentation sheet Her work is hung so that the middle to top of her sheets is above eye level	HOW THE VISUAL MESSAGE IS CONSTRUCTED AND USED AS REPRESENTATION/OBJECT – DIFFERENT KINDS OF SEEING – AS ITSELF, REPRESENT ARCHITECTURE AND HOW IT IS COMPOSED – HOWEVER CRUCIAL ELEMENTS OF STORY MISSING IN ASP2'S PRESENTATION 	For large segments of her presentation ASP2 keeps her back to the board projecting into the studio space – she adopts a half-turned stance	Uses 'em' type words and truncated sentences, and silence as a pause as she appears to gather her thoughts	ASP2 is turned towards and touching her presentation sheets as she explains the site is situated within a natural environment. Her left arm is extended as she touches the site plan with her splayed hand and her right arm is bent at the elbow with her right hand held in a relaxed pointing down position. She is half turned towards the design tutors with her back to the L part of her crit space and her head is tilted upwards as she gazes at the site plan. ASP2 stands with her legs about a foot apart	
	USING ARCHITECTURAL TERMINOLOGY – RULES CONVENTIONS ROLES OF VERBAL MODE					DIFFERENT KINDS OF INTERACTION – ROLE OF PAUSES, SILENCE, TRUNCATED WORDS – CONTROLLING or PACING DEVICE?		
	Em, it's - it's quite a large development, s- they've - they've played around with 3D models, er, there is different typologies, er, that they've come up with. 48.29(01.33)		1.25 Then ASP2 - moves on to discuss what kind of development it is, disengages with the presentation materials Still engages in different way BY STANDING BACK, TILTING HER HEAD TO ONE SIDE AND USING HER HANDS TO INDICATE WHAT TO LOOK AT AS SHE GAZES AT AND 'READS' (INTERPRETS) SHEETS	 3D sectional perspective view	ASP2 still maintaining a half-turned stance	Several pauses here – appears she is trying to ensure she uses the right terminology Uses 'em' type words and truncated sentences, and silence as she appears to gather her thoughts about terminology and what is going on – possibly 'reading' text and visuals	ASP2 has her head tilted to one side as well as in an upward direction perhaps indicating interest and thinking – also leaning back away from presentation - Not physically touching presentation materials but engaging with them physically in terms of her hand gestures – left arm is bent and her hand is in a splayed position with palm facing the presentation.	ROLES OF NON-VERBAL MODES
	USING ARCHITECTURAL TERMINOLOGY – RULES CONVENTIONS	Above illustrates what ASP2 is SAYING – DOES SHE UNDERSTAND THOUGH?	Above illustrates what ASP2 is DOING	DISENGAGES TOUCHING- STANDS BACK Above illustrates what ASP2 is DOING				

Figure 62: ASP20 Multimodal Observation Transcript

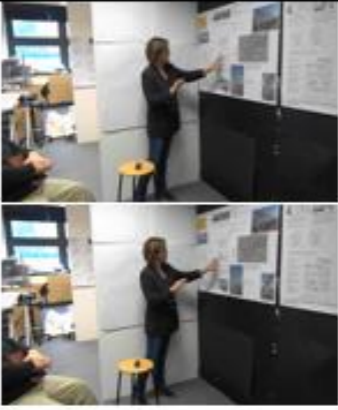







			1.33 (13 secs)	<p>Now ASP2 reengages physically with presentation materials as she refers to 3D sectional view of the different units – needs layouts here though – using information she has but evidence missing – needed plans or zonal diagrams also – expected drawing types to explain</p>		 <p>Above illustrates what ASP2 is DOING – ROLES NONVERBAL</p>	<p>Still maintain the half-turned stance with her back very close to the wall</p>	<p>materials – showing, pay attention kind of gesture</p>	
		SEGMENT 2							NOTES TO SELF
ASP20	<p>Em, so you – you could have, in fact, a single person living there. 48.39(01.43)</p> <p>Em, a couple, or even em, a small starter family, and then the larger unit [referring to presentation materials]. 48.47(01.51)</p> <p>Em, and both – both sides of the em, units are flanked by green areas. 48.55(01.59)</p> <p>There's em – the – the irony is, of this – I mean they have gone into like the potential appeal of PV installation. 49.03(02.07)</p> <p>Er, they've looked at the well-being of the community. 49.06(02.10) ISSUE WITH COHERENCY – NO SCRIPT</p> <p>Above illustrates what ASP2 is SAYING</p>		1.44 1.51 1.59 2.04 2.10 (30 secs)	<p>ASP2 is using the three dimensional sectional perspective to explain – needed to use 2D plans also to show layout of the different units on different levels – indicates later on did not get access to plans in her desktop research – could have generated these deductively as sketches from the 3D visuals</p> <p>VISUAL REASONING AND LITERACY ISSUE? LINK TO LITERATURE TO DO WITH LITERACY AS WELL AS BEZEMER AND KRESS 2016</p> <p>ISSUE WITH SKILL, VISUAL REASONING AND ROLES OF VISUAL MODE/MEDIA</p> <p>DIFFERENT KINDS OF SEEING – NOT SURE – APPEARS TO DESCRIPTIVE ANALYSIS BASED ON IMAGERY AND TEXT</p> <p>LIKE ASP1 - NONE OF THE BASE DRAWINGS ARE HER OWN WORK – CUT AND PASTE FROM DESKTOP RESEARCH SOURCES (ARCHITECTS WEBSITE, MARKETING INFORMATION) AND 'COLOURED IN' - AGAIN THIS IS RELATES TO VISUAL REASONING AND LITERACY ISSUE - DOES NOT EXPLAIN WHAT PV IS OR WHY RELEVANT HERE – DOES SHE UNDERSTAND? HER TALK IS NOT CONVINCING - (photovoltaic solar energy modules integrated into roof assembly) – LINK TO LITERATURE</p> <p>REFERRING TO EXPLODED 3D SECTIONAL VIEW – NOT SURE WHY SHE IS MAKING THIS POINT NEGATIVELY DOES NOT FOLLOW THROUGH ON THE WHY – IS THERE AN UNDERSTANDING ISSUE? – VISUAL REASONING AND LITERACY ISSUE</p>	 <p>Pointing to single storey unit</p>  <p>Pointing to 3 storey unit</p> 		<p>still maintain half turned position with back to L board projecting into studio space</p> <p>Cluster of nonverbal modes in play as well as a cluster of multimodal resources – as orchestrated ensemble – link to Baden Ian Eunson 2015 and Multimodality literature</p>	<p>ASP2 has her head tilted to one side as she gazes at and appears to 'read' (interpret) from the 3D inhabited (objects in the spaces) sectional perspective – her right arm is extended and her right hand is touching the presentation materials and her forefinger is superimposed onto the drawings. Her left arm is bent across her abdomen with her right hand in an extended/splayed position with palm facing downwards. As she speaks she brings her head up into a less exaggerated tilt and continues to gaze at the presentation materials</p> <p>Now she disengages from her physical touching of the presentation materials and uses her outstretched hands with palms still facing downwards appearing to use them to indicate the green space flanking the housing units</p> <p>NOT MAKING EYE CONTACT WITH TUTORS OR PEERS</p> <p>USING HANDS TO EXPRESS HEIGHT, WIDTH AND POSITION OCCURS A NUMBER OF TIMES IN DIFFERENT PARTICIPANTS PRESENTATIONS – COMMON IN ARCHITECTURE – LINK TO LITERATURE</p>	<p>Using a range of gestural and directional movements – (what and why) to signal attentiveness to her work (presentation materials) outputs and also to direct attention to materials – this shows the multi-layered nature of the interaction – HOWEVER IN THIS INSTANCE NOT USING FULL RANGE OF EVIDENCE REQUIRED – NO PLANS OR ZONAL DIAGRAMS</p> <p>Above illustrates what ASP2 is NOT DOING – MISSING ELEMENTS</p>

Figure 63: ASP20 Multimodal Observation Transcript

		SEGMENT 3						
DST2:	<is there living on the ground, bedrooms on the first, other floors - ?>			DST2 probes - has 'read' missing data - no layouts			Stands her back against the L board projecting into studio	Looking towards DST2 with her head inclined and tilted towards DST2 indicating she is listening and paying attention - her right arm though is bent and folded across her abdomen and her hand is splayed with palm facing towards own body - is this defensive?
ASP2O	<Yeah. Yeah there is a potential, it's as though they are offering different layouts, cause I looked at one where it was a bedroom on the ground, but - and also obviously outside space.> 52.32(05.37) And then there were - 52.33(05.38)		5.27	ASP2 talks about different layout uses her hand gestures - indicating height - main point here though the evidence is not there - could not get at the plans but did not construct them deductively - even as zonal diagrams - not good decision - lack of analysis				using hand gestures to describe aspect that is missing from the presentation materials - no layout - head turned towards DST2 with whom she is making eye contact
			5.34	In this 41 secs segment ASP2 continues to use talking and gesturing over physically interacting with or using the visual materials represented in the hung artefacts during review event				ASP2 looks down as she indicates level
			5.37	This is not just about not tuning in to all their affordances potentialities as a mode fully - link to Bezemer and Kress, 2016 - EVIDENCE MISSING - HAS NOT TRIED TO PRODUCE EVIDENCE DEDUCTIVELY with the materials she obtained - LITERACY ISSUE/VISUAL REASONING ISSUE LINK TO LITERATURE ABOUT VISUAL LITERACY - DERNIE 2014... AND LITERACY GENERALLY				
			5.40	- is there an assumption the two tutors can see and read (mean in an analytical sense) what is missing via her explanation and nonverbal actions - DST2 indicating this is not acceptable - RULES AND CONVENTIONS - EXPECTATIONS -				
DST2	<That's great. But your evidence is in your - your invisible hands (participant using hands evidence not on presentation sheets).> 52.37(05.42)		5.40					Above and below illustrates what ASP2 is DOING
	Yes, I know, I only came across that really late on the day - 52.40(05.45)		5.42					tutor uses hands to show and emphasise point about using hands for something that is not present 'invisible' ASP2 uses her hands with palms facing downwards to indicate level
			5.42					ASP2 tilts head and body towards tutor - embarrassment? Still using her hands to indicate height?
ASP2O	<When you are showing us your hands you are not showing us the evidence.> 52.42(05.47)		5.45	THE ORCHESTRATED ENSEMBLE IS ASP2S EVIDENCE OF LEARNING (TRANSFORMATION)- ADDRESSING THE PRECEDENT STUDY TASK -DECONSTRUCTING, CONSTRUCTING AND DISSEMINATING FINDINGS... VIA PRESENTATION MATERIALS (VISUAL AND TEXTUAL) VERBAL AND NONVERBAL MEANS - LINK TO LITERATURE			Cluster of nonverbal modes in play - link to Baden Ian Eunsou 2015 and Multimodality literature	
DST2	Okay, I know ((I'm really sorry)). 52.45(05.50) But it wou - would appear that you could even take em, or, a solution of having a sitting room upstairs with - 52.52(05.57)		5.47					claps hands in what appears to be a conciliatory gesture? - explaining difficulties with the missing evidence - head still tilted towards tutor
ASP2O			5.57					

Figure 64: ASP2O Multimodal Observation Transcript








DST2	<p><That's adaptable. What you are saying is its - it is adap- adaptable.> 52.56(06.01)</p> <p>Above illustrates what ASP2 AND DST2 ARE SAYING AND SHOWING</p>		6.01	<p>- continues to explain without evidence using the 3D exploded view - indicates volumes but not layout of spaces - no activity is shown</p>		 <p>Above illustrates what ASP2 is DOING</p>		<p>design tutor again reiterating and pointing out that the evidence for ASP2s statements not on presentation drawings</p> <p>ASP2 has her arms opened and hands held in a conciliatory gesture? But palms facing upwards and towards herself - is this defensive? - continues on regardless to explain without evidence</p> <p>reengages with presentation materials physically. Left arm is extended and finger is superimposed on the 3D uninhabited exploded sectional perspective -</p>	
ASP2D	<p>It's was, yeah. In fact, there - there's the - living space outside - [referring to presentation materials]. 53.01(06.06)</p> <p>DESCRIPTIVE ANALYSIS?</p>		6.05	<p>ASP2D uses the 3D exploded sectional perspective to explain layout</p>		<p>Above and below illustrates what ASP2 is DOING</p>		<p>ASP2 points to exploded 3D sectional perspective - needs plans - using evidence she has</p>	
DST2: ASP2D	<p><You have to - you have to provide the evidence then through your further analysis ([inaudible segment])> 53.04(06.09)</p> <p>Yeah. 53.04</p> <p>ROLES OF VERBAL MODE</p>		6.09 (41 secs)	<p>through the use of plans which show layout</p> <p>ASP2 pattern of interaction differs somewhat from ASP1, ASP3 longer periods of either engaging with presentation materials and looking away from tutors and audience versus engaging with tutors and audience and not interacting with presentation sheets - is this a literacy issue?</p> <p>ROLES OF VISUAL MODE</p>		<p>ROLES OF NONVERBAL MODE</p>		<p>pushes glasses up on bridge of nose with forefinger - EXPRESSING DISCOMFORT - nervousness? - left hand held across her abdomen with palm open and facing inwards as DST2 reiterates the need for plans - different kind of evidence</p>	

Figure 65: ASP2D Multimodal Observation Transcript

Appendix 1D3: ASP30 Multimodal Observation Transcript


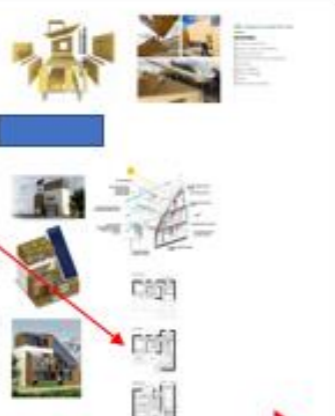









ASP30	Multimodal transcript	Architectural Student Participant 3 (ASP30)	OBSERVATION	VISUAL	NONVERBAL	PARALINGUISTICS	NOTES TO SELF	
	Dialogue and sounds	Videotape segment SEGMENT 1	NOTES TO SELF	Visual modes segments from presentation sheets and close up visuals relating to what the asps interacts with during the orchestrated ensemble	nonverbal communication – note -	use of volume, pitch and tone - intonation, pitch, quality of voice (Gorden, 1980) - did not focus on this to any great degree unless noted in dialogue - probably because of my deafness hard to pick up unless it was really emphatic then I noted it in the transcription	NOTES TO SELF	
		video tape 9.15 minutes ASP3 does not use a separate hand held script or set of prompts uses the presentation materials – indicates in his interview misses points he wants to make as a result – link to interview				PROXEMICS - use of interpersonal space - how space is organised - seating arrangements, distance between presenter and peers and tutors (Gorden, 1980)	CHRONEMICS - use of time - amount time each person gets and also relates to - pacing silence (Gorden, 1980)	KINESICS - use of bodily movements - hands, facial expression, legs (Gorden, 1980)
		 Precedent 2 – less information available – for precedent 2 – however ASP3 still manages to sources plans, sectional view and 3D imagery – in order for deductive analysis visualisations are arranged across the top and down the left hand side. 3D sectional view with annotation and plans middle to bottom right hand side. All the imagery and 3D sectional view are of similar size the plans are smaller in scale – clean copy sent to me – on materials hung for review overlaid annotation right hand side of sheet Data source http://archive.higgsyoung.com/competitions/0722%20Home%20of%20the%20future.htm	 Precedent 1 – all images taken from data sources- designers website and pdf planning- the images are laid out similarly to the way laid out in source materials -move from general to particular – plans given prominence – clean digital copy sent to me – overlaid analysis on plans on sheets hung for review Data source Retrieved April 25 th 2016 (no longer available) http://www.homesevent.co.uk/files/osc3_all_presenters_powerpoint_presentation_designing_in_quality_livinhome_with_presentations.pdf	 NOTE - ASP3 GAVE ME A CLEAN COPY OF PRESENTATION MATERIALS - WITHOUT ANY ANNOTATION OR COLOURING I USED PHOTOS OF PRESENTATION MATERIALS TAKEN ON DAY OF OBSERVATION THAT HAVE BEEN MANIPULATED FOR DESCRIPTION AND EXPLANATION Precedent 1 - all images taken from data sources- designers website and pdf planning- the images are laid out similarly to the way laid out in source materials -move from general to particular – plans given prominence – clean digital copy sent to me – overlaid analysis on plans on sheets hung for review Data source Retrieved April 25 th 2016 (no longer available) http://www.homesevent.co.uk/files/osc3_all_presenters_powerpoint_presentation_designing_in_quality_livinhome_with_presentations.pdf IMAGES TAKEN DIRECTLY FROM DATA SOURCES NO OVERLAID ANALYSIS HERE	<p>Presentation sheets -just 2 – range of diagrams and imagery with plans and 3D diagrams and sectional perspectives – all taken from data sources – MOVES FROM ABSTRACT TO PARTICULAR – AS THEY DO ON WEBSITES DATA SOURCED FROM - annotation and colour used mainly on the plans – did not send these to me – I USE PHOTOS OF THESE LATER ON, THAT I TOOK ON THE DAY OF THE OBSERVATION</p>	The individual crit space is an L-shaped configuration in this instance, many of the others are part of a U-shaped configuration of L shapes - the boards for hanging the work are arranged around the perimeter of the studio - the asps drawing boards and accompanying laydown desks are normally within their individual hanging space – unless there is a review when they move them aside or towards the centre of the room to facilitate viewing by their peers and tutors. There are two large worktables in the centre of the room used to facilitate group work and or discussion; and in order that the asps can make models away from their personalised workspace which is not large enough to make models or suitable - cutting out card, using glues etc. Normally, the design tutors sit within reading range of the presentation materials but far enough away from the presenting student that they minimise the risk of invading their personal space and or intimidating them. The presenting asp's peers usually sit or stand beside or behind the design tutors space permitting	time given to each student is not consistent – is this an issue? – however, some students are better prepared, have more detailed presentation materials... Noticed that most of the asps pause, repeat words or partial sentences - appears to be because they are gathering their thoughts before articulating a point or comment - ditto the design tutors	ASP3 uses talking and gesture throughout the presentation while interacting with his presentation materials fluidly like his colleagues ASP3 uses a variety of gestures - changes of facial expression to indicate attention and interest, hand gestures accompanying talking and showing
ASP30	So, they looked at it in terms of what people need, and from their basic needs up to modern day living , and how they could adapt that for housing and what they did. 18.07(00.37)		0.29	All of the above images taken directly from data source used verbatim. ASP3 explains what they mean – no overlaid analysis so using talk to explain/as analysis – not tutors expectation	 DATA TAKEN DIRECTLY FROM SOURCES – NO OVERLAID ANALYSIS HERE		ASP3 has his head tilted in upwards direction. He extends his right arm, points at, and touches presentation materials with palm facing outwards as he introduces precedent one	DYNAMIC INTERACTION BETWEEN MODES
	ROLES OF VERBAL AND NONVERBAL MODES		0.34		 ROLES OF VISUAL MEDIA	 	ASP3 moves his hand across sheet, bends elbow of right hand, while left hand held across his abdomen - open legged stance	

Figure 66: ASP30 Multimodal Observation Transcript











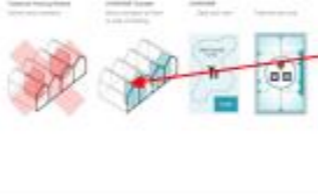




			0.36						ASP3 turns towards both design tutors and makes eye contact both hands held outwards with palms facing in upwards direction as he talks about precedent 1	
			0.37						ASP3 turns away again towards his presentation materials and he gazes at what he is referring to as he concludes talking	
ASP30	So, their main em, plan or agenda was to cut out the circulation through the middle of these em, establishments, put your circulation to the outside to create an open floor plan, and all your services then go to the outside as well to create this central area that is open for living in. 18.26(00.56) ARCHITECTURAL TERMINOLOGY – OUTLINING STRATEGY LINKED TO THINKING – WHAT IS EXPECTED		0.41		 NO OVERLAID ANNOTATION OR ANALYSIS HERE		DIFFERENT KINDS OF INTERACTION – ROLE OF TRUNCATED WORDS – CONTROLLING or PACING DEVICE? NO PAUSES	Above and below illustrates what ASP3 is DOING – USING NONVERBAL MODES	ASP3 extends his right hand towards his presentation materials and points at diagrammatic 3D view of units to explain – again different kinds of seeing going on – representation but also referring to reality – need for insider knowledge to understand	Using a range of gestural and directional movements – (what and why) to signal attention and his attentiveness to his work (presentation materials) outputs and also to direct attention to materials – this shows the multi-layered nature of the interaction
			0.44				Cluster of nonverbal modes in play as well as a cluster of multimodal resources – as orchestrated ensemble – link to Baden Ian Eunson 2015 and Multimodality literature	NEED FOR INSIDER KNOWLEDGE	ASP3 turns towards tutors to make eye contact as he speaks	
			0.47	ASP3 uses sectional diagrams - representing shift to services core from centre to periphery of unit - and central open living space					ASP3 turns away and gazes at his presentation materials and he superimposes his hand on drawings as he points out the middle 3D diagrammatic illustration of services core towards front of unit	
			0.50	VERBAL MODES ARE TO THE FORE IN TERMS OF DEMONSTRATING HIS OWN UNDERSTANDING OF THE PRECEDENT- DESCRIPTIVE ANALYSIS? – NO ANNOTATION					ASP3 shifts to discuss diagram indicating central open space within living layout	

Figure 67: ASP30 Multimodal Observation Transcript













			0.52	All the above diagrams taken directly from data source – used verbatim – ASP3 'reads' the diagrams and explains what they mean – visual analysis is missing – not that ASP3 does not understand rather there is literacy issue – not using the right mode to do its job?	ALL THE ABOVE MATERIALS ARE TAKEN DIRECTLY FROM DATA SOURCES – NO OVERLAID ANALYSIS IN USE – THIS IS NOT THE EXPECTATION ACADEMICALLY – CITING? IN A SENSE QUOTATIONS IN A VISUAL SENSE – LITERACY ISSUE? ALSO IS THERE ASSUMPTION TUTORS AND PEERS CAN 'READ' THESE DIAGRAMS – SELF			Here ASP3 is using his open hands held apart to indicate outside – feature of his presentation diagrams – represented abstractly using nonverbal mode	
			0.54				DIFFERENT KINDS OF INTERACTION – ROLE OF 'EMS' – CONTROLLING or PACING DEVICE? NO PAUSES/TRUNCATED WORDS	ASP3 closes his hands towards the end of the point he is making as he continues to make eye contact with his audience	Again, Dynamic interaction between modes going on here – the visual materials are being interacted with physically – however prescriptive direction about how presentation materials were to be constructed (class based instruction) limits how the different types of media can be
			0.56 (27 secs)					As he finishes speaking ASP3 turns back towards his presentation materials and gazes at what he is referring to – with his elbows in a bent position and his palms together and facing upwards	USED to best effect – (benefit of using the multimodality lens as a way of learning about modes – literacy issue) again to do with
		SEGMENT 2							
ASP30	So, what they have done is, this is just a basic ground floor empty (referring to presentation materials), and your entrance is through this section (referring to presentation materials) and then it is all open. 19.24(01.53)		1.42	HERE PLANS ARE USED TO EXPLAIN ACCOMPANIED BY VERBAL EXPLANATION OF WHAT IS GOING ON	NO 'EMS' – NO PAUSES			ASP3's head is tilted downwards and he is gazing at his plans while using his hands to indicate height of units as he talks about the ground floor?	
			1.45	ASP3 uses and physically interacts with the plans to show and support his explanation about how the spaces are laid out – superimposes hand on the plan in the bottom left hand (LH) corner of his presentation sheet and looks and probably 'reads' (analytically and literally) the plan while explaining also happens during the task of deconstructing the precedent and constructing his message prior to review (look to interviews for evidence of this) explained in interview goes through a process of translating by means of writing and drawing either by overlaying or by redrawing to understand	ASP3s has annotated and coloured in sections of the plans – form of analysis – still using data source for base drawing		PLANS ARE HEAVILY ANNOTATED	ASP3's head is tilted in a downwards direction as he leans in towards sheets and he is superimposing his hand on plans to point out where he is talking about – evidence, showing, two kinds of seeing going on – using drawing as representation and to show reality	FUNCTIONAL SPECIALISMS AND affordances and potentialities – link this to analytical frame
			1.53	USING PRESENTATION MATERIALS TO DEMONSTRATE	HOW THE VISUAL MESSAGE IS CONSTRUCTED AND USED AS REPRESENTATION – DIFFERENT KINDS OF SEEING – AS ITSELF, REPRESENT ARCHITECTURE AND HOW THE ARCHITECTURE IS COMPOSED – LINK TO SCHON AND WIGGINS		Cluster of nonverbal modes in play as well as a cluster of multimodal resources – as orchestrated ensemble – link to Baden Ian Eunson 2015 and Multimodality literature	WHAT HE IS DOING USING NONVERBAL MODES	ASP3 continues to gaze at the plan. His head is tilted to left and his right arm is extended and he has superimposed his little finger onto the plan to locate the part of the plan he is referring to. His palm is facing towards the drawing. His left arm is bent at the elbow and his hand is extended outwards with palm facing upwards

Figure 68: ASP30 Multimodal Observation Transcript


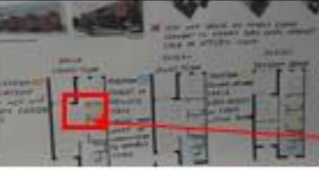













ASP3D	Two spaces here and opening the back again and an exterior outdoor space [referring to presentation materials]. 19.30(01.59)		1.55	NO 'EMS' NO PAUSES AND NO TRUNCATED WORDS - SCRIPT EITHER THOUGH - IN INTERVIEW ASP3D INDICATED DELIBERATELY ORGANISES SHEETS AS PROMPTS BUT INDICATED HE DID FORGET ONE/TWO POINTS HE WANTED TO MAKE			Above and below illustrates what ASP3 is DOING - USING NONVERBAL MODES - ROLES	As ASP3 continues to talk about the different segments of the plan, he has leaned in towards his presentation materials as he moves his hand with fingers still superimposed on drawings - his body is half turned towards his presentation materials
	USING ARCHITECTURAL TERMINOLOGY- ROLES VERBAL MODES - TO IDENTIFY, EXPLAIN, SHOWING HIS UNDERSTANDING - MULTI LAYERED - LINKS TO DYNAMIC NATURE OF INTERACTION BETWEEN MODES		1.57					ASP3 leans in towards his presentation materials a
			1.59 (17 secs)	ASP3 has overlaid his own analysis in the form of text, hatching and colour on each of these plans- but the plans are taken directly from data sources and arranged similarly ROLES OF VISUAL MEDIA			ASP3 has moved to the right of his presentation materials as he turns to make eye contact	ASP3 turns to look at OST1 and he has both hands held in front of him with palms facing towards each other
		SEGMENT 3 - PRECEDENT 2						
ASP3D	They've also with this one, solar panel system [referring to presentation sheets], that they have introduced here [referring to presentation materials], that whole section has been devoted to circulation. 24.46(07.15) ARCHITECTURAL TERMINOLOGY ONE 'EM'		7.07	ASP3 referring to a range of different drawing types on presentation materials - 3D realistic visualisation plus exploded diagrammatic sectional perspective - uses annotation as part of analysis - this is in line with tutors' expectations			ASP3 has moved in behind a drawing board so that his second presentation sheet is not obscured	ASP3 moves away from presentation sheets behind the drawing board. He disengages with his materials physically while 'reading' (interpreting the 3D visualisation) verbally. His head is turned towards his drawings and tilted - arms are bent and his hands are held close together with palms facing upwards
			7.10	overlaid own marks - colour and text on top of 3D but the 3D visualisation taken verbatim from website - plus analysis is verbal not visual - not expectation - not using visual mode to full potential - literacy issue - link to literature			ASP3 has moved in behind a drawing board so that his second presentation sheet is not obscured	As he talks about circulation ASP gazes at the 3D visualisation on his sheet and superimposes his finger on the 3D image which he has outlined in red

Figure 69: ASP3D Multimodal Observation Transcript

			7.15 (8 secs)				ASP3 has moved in behind a drawing board so that his second presentation sheet is not obscured		As he finishes speaking ASP3 turns to make eye contact – in this instance with DST1 – his arms are bent and both hands held in front of him with palms facing upwards as part of his explaining the way things are
		SEGMENT 4							
DST2	- it's like the lighthouse we previously spoke about, this - this is a prototype that potentially can lead to us thinking about how we might redesign houses so - 26.01(08.33)			DST2 USES PAUSES AND TRUNCATED WORDS – ALSO USING ARCHITECTURAL TERMINOLOGY					As DST2 speaks ASP3 turns his body, tilts his head and makes eye contact with DST2 – arms still bent but hands held together - listening pose?
ASP30	<Hm.> 26.02								
DST2:	-- so, it is not necessarily - 26.03								
ASP30	<Yeah, I know, in terms of how they orientated it and that stepped effect which I - are - are aspects that I will want to look into, in terms of mine, what they don't need is the loss of, er, ground floor or <tuts> usable space, in terms of bedrooms and things like that.> 26.19(08.49)		8.33	ARCHITECTURAL TERMINOLOGY					ASP3 turns to gaze at his visual as he responds to DST2's comment about fact this design is a prototype – REFERRING TO FACT ORIENTATION, STEPPED EFFECT IN TERMS OF LAYOUT TO USE NATURAL LIGHT AND OPEN SPACE...
	ARCHITECTURAL TERMINOLOGY		8.35				Above and below illustrates what ASP3 is DOING – USING NONVERBAL MODES – NOTES		ASP3 uses hand gestures to indicate talking about space as he makes eye contact with DST2 to respond to his comment
	WHAT HE IS SAYING EVALUATING (SYNTHESISING AND JUDGING) – WHAT THEY DID AND WHY – IMPORTANCE TO HIS OWN DESIGNING - BUT ALSO QUESTIONING ASPECTS OF APPROACH		8.39	ASP8 pattern of interaction between modes is fluid and constant (eye contact with tutors and audience versus gazing at and interacting with presentation materials for instance).	WHAT HE IS RECORDING, SHOWING, REPRESENTING, DEPICTING (GIBSON, 1979) – STOREHOUSE OF KNOWLEDGE? ROLES OF VISUAL MEDIA		WHAT HE IS DOING Cluster of nonverbal modes in play as well as a cluster of multimodal resources – as orchestrated ensemble – link to Baden Ian Euronson 2015 and Multimodality literature		ASP3 continues to gaze at DST2 with his head tilted to one side as he uses hand gestures as part of his explaining – arms bent hand held outwards in open gesture ASP3 turns back towards presentation materials - prompts - right hand down by side left hand across abdomen - head turned and tilted towards presentation sheets indicating that info about dialogue there

Figure 70: ASP30 Multimodal Observation Transcript

Appendix 1D4: ASP40 Multimodal Observation Transcript










ASP40	Multimodal transcript	Architectural Student Participant 4 (ASP40)	OBSERVATION	VISUAL	NONVERBAL	NOTES TO SELF		
	Dialogue and sounds	Videotape segment SEGMENT 1		Visual modes segments from presentation sheets and close up visuals relating to what the asps interacts with during the orchestrated ensemble		nonverbal communication – note - PARALINGUISTICS – use of volume, pitch and tone - intonation, pitch, quality of voice (Gorden, 1980) – did not focus on this to any great degree unless noted in dialogue – probably because of my deafness hard to pick up unless it was really emphatic then I noted it in the transcription		
		videotape time 15:48 minutes - nearly six minutes over the about 10 minutes allotted ASP4 presentation was the fourth of the eight reviews ASP4 does not use a separate hand held script or set of prompts. Uses presentation materials as prompts		 Precedent 1 – competition – virtually no annotation – no plans, sections or elevational drawings (expectation) - no deductive analysis – ASP4 has drawn over and coloured in - removed analytical text on section in data source? Precedent 2 – Far more information – text and imagery – taken directly from sources – for the most part not put in her own words – terminology comes from sources – ASP4 does not use this terminology in her dialogue – text mainly along left hand side and imagery along top and right hand side – equal weight	 Plans, sectional views and elevations – not referred to throughout presentation – one sheet missing because ASP4 did not send it on – nor did she send on sources	PROXEMICS - use of interpersonal space - how space is organised - seating arrangements, distance between presenter and peers and tutors (Gorden, 1980) CHRONEMICS - use of time - amount time each person gets and also relates to - pacing silence (Gorden, 1980) KINESICS - use of bodily movements - hands, facial expression, legs (Gorden, 1980)		
ASP40	I will start with this [referring to presentation materials] because it is more like - this is the [name of precedent one] proposal for the er, [name of competition] competition. 00:16 And this competition is em, the major thing in the about sustainable design and we can see there is a proposal that they show er, like a er, small rectangular form with a gable. 00:32(00:18)		0.13	However as I noted elsewhere she does not refer to or use the bottom two sheets during her presentation – thus eliminating large portion of expected visual artefacts in her presentation – focuses instead on the 3D visualisations. – again like most other participants she has taken the data directly from sources – images, plans, sections, elevational studies, site plans etc. and textual information – has drawn over some of the 3D images to create own drawings using line and colour – textual information is not in her own words though for the most part taken directly from sources	 	ASP4 hung her work on the L board projecting into the studio space with ASP3s work hung on the board parallel to wall – usually each student gets two boards – space bit cramped here in the RH corner of studio. During her presentation ASP4 stayed in the corner of the L shaped configuration mainly with her back to the boards parallel to main studio wall. She does not use the two sheets that are hung at the bottom of her boards referring only to the two top sheets. The two tutors are seated along a diagonal sight line, one on a high chair and the other a low - with students behind them. I also have a diagonal sight line. I am standing videing the review and there is an audio device on the chair beside ASP4	ASP4s presentation about six minutes longer than allotted time – English is not this participant's first language, she is Syrian – ASP4 uses pauses and <i>em/er...</i> and truncated sentences – not always grammatically correct – finds it difficult at times to find and or use architectural term or expression	As ASP4 begins her presentation she turns to gaze at her presentation sheets – she has 4 – double the amount of most other students. Then she superimposes the forefinger of her right hand onto the 3D sectional perspective. Her left arm is bent across her lower abdomen with her hand held in a relaxed fist position
ASP40	USING SIMPLE ARCHITECTURAL TERMINOLOGY HERE – HER TALKING IS NOT GRAMMATICALLY CORRECT AND DOES NOT MAKE SENSE AT TIMES – IS THERE AN ISSUE WITH UNDERSTANDING?		0.18	uses sectional drawing to explain form when perhaps a 3D image better			ASP4 continues to gaze at and superimpose her forefinger on the sectional perspective. Her body is half turned outwards towards the two tutors, her peers and myself	
ASP40	But er, holds like er, two bedrooms and living room and kitchen. 00:39(00:25) DESCRIBES SPACES HERE AGAIN PLANS AND SECTIONS WORKING TOGETHER MORE APPROPRIATE – PROBLEM WITH FUNCTIONAL.		0.25	Again, ASP40 uses 3D sectional perspective/visualisation to explain – said in interview easier to understand by seeing 'reality' - which is what this kind of drawing does even though expected representation to explain layout is plans which are 2D parallel constructions - need to understand principles behind them to read them properly – IS	 ROLES OF VISUAL MEDIA			

Figure 71: ASP40 Multimodal Observation Transcript

	SPECIALISM OF EACH DRAWING			THERE AN ISSUE WITH VISUAL LITERACY?						
ASP40	Em, it is a very simple - simple structure er, the design. 00.47(00.33) HERE IDENTIFIES STRUCTURE BUT DOES NOT DETAIL OR EXPLAIN VERBALLY - EVEN THOUGH SHE HAS AN EXPLODED 3D WHICH INDICATES HOW ARCHITECTURE ASSEMBLED - THE WHAT BUT NO WHY OR HOW		0.33	does not explain the why and how of the 'simple' structure using the exploded view of the panels and beams etc. - not demonstrating analysis either verbally or visually because visual is not annotated - viewer left to 'read'/interpret			NO EYE CONTACT ONLY TOWARDS END OF THIS DIALOGIC SEGMENT		ASP4 continues to gaze at, and interact with, her presentation sheets as she points at the exploded 3D view of the structure and assembly of unit with the forefinger of her right hand. Her head is tilted to the LH side. Her left hand is bent at elbow and her hand is placed under her chin	
ASP40	And em, like very high in insulation and airtightness. 00.54(00.40) WHAT SHE IS SAYING		0.40	The exploded 3D visualisation on the right shows how the structure is assembled - appears to be a system/mixture of prefabricate panels and more regular forms of construction - beams - ASP4 does not refer to this even though she talks about high levels of insulation (which appears to be sandwiched between two panels - is there an assumption the two tutors will 'read' the presentation materials - part of what the student is expected to 'do' is show understanding through the process of explaining and showing via visual media				ASP4 shifts her gaze and her finger back to point at the 3D sectional view - not sure why - the information she is giving verbally is not indicated in the drawing she is looking at? - either visually or in the form of annotation - is there an understanding issue here again?	Again, Dynamic interaction between modes is going on here - the visual materials are being interacted with physically as she speaks - however limited how the different types of media are being USED - (benefit of using the multimodality lens as a way of learning about modes - literacy issue to do with FUNCTIONAL SPECIALISMS AND affordances and potentialities - link this to analytical frame	
ASP40	They show this like er - er clearly in the - in their proposal. 00.59(00.45) NOT USING ARCHITECTURAL TERMINOLOGY - ROLES VERBAL MODES - TO IDENTIFY, EXPLAIN, SHOW UNDERSTANDING - COMPLEMENT VISUAL MODES - IDENTIFYING AND DESCRIBING - NO ANALYSIS		0.44	Does not elaborate on what is shown clearly in the work she has hung as representative of proposals for development - not sure why - is it lack of script? Is it lack of understanding? - lack of deductive analysis - only 1 sheet of 3D images - for this project - no plans, sections, or elevations	ROLES OF VISUAL MEDIA		WHAT SHE IS DOING - LINK TO LITERATURE ABOUT ROLES OF NONVERBAL MODES - GORDEN 1980	Using er and pauses and truncated sentences here - has not really given any kind of in depth description or analysis	ASP4 half turns her head towards tutors and peers as she continues to interact physically with the 3D design sectional view	Cluster of nonverbal modes in play as well as a cluster of multimodal resources - as orchestrated ensemble - link to Baden Ian Eunson 2015 and Multimodality literature
			0.45				Above and below illustrates what ASP4 is DOING - USING NONVERBAL MODES - ROLES - BUT FOR WHAT?		Then she turns her gaze back towards the 3D sectional view and interacts with it physically by continuing to superimpose her forefinger on the drawing - are these physical moves indicative of doing something to hide discomfiture at lack of knowledge about the precedent?	
ASP40	And they em, er, they ex - explain it in the drawings more than anything and then how it is sustainable. 1.08(00.54)		0.54	Does not back up her statement by showing us how the visual media 'explain' the proposals in the drawings which is part of her 'job' in this review - analytical annotation (in source data) removed from sectional view why? - This is a key drawing				Using er and pauses and truncated words here - not giving any kind of in depth description or analysis - verbally or visually	ASP4 shifts her gaze in a downwards direction to the bottom of the sheet and moves her forefinger down to point at the 3D sectional view	

Figure 72: ASP40 Multimodal Observation Transcript

ASP40	So, they or, they have designed solar panels that they get the, heating for water and, em, and er collection of water, like rainfall water, so use in the toilets. 1.25(01.12)		1.05	evidence for sustainable comment - section taken directly from data source - issue here with level of understanding?						
	USING ARCHITECTURAL TERMINOLOGY HERE - SECOND PART OF THE DIALOGUE CONFUSED - DOES NOT MAKE SENSE - NOT EXPLAINING THE HOW OR SHOWING THE HOW		1.12 (59 secs)	not sure why ASP4 eliminated all the analytical annotation from her version of this section - all evidence, relevant - took out all the analysis???? Did not attempt to put in her own words - lack of understanding???			DIFFERENT KINDS OF INTERACTION - ROLE OF TRUNCATED WORDS - CONTROLLING OF PACING DEVICE? NO PAUSES		ASP4 continues to face away from her audience and interact physically with sectional drawing as she 'reads' from the drawing and the annotation on the section with her forefinger superimposed on the sectional drawing	
SEGMENT 2 - PRECEDENT 2										
ASP40	Oh! I want to say as well like they - the, elevation of their proposal show that these units will stay - like stick [be joined] together and there is a - 2.32(02.18)		2.05	what the student is saying here is that the proposed development is a terrace - the two views on the right that ASP4 is referring to are not elevations they are 3D views that show the front facades - deducing from the view on left that units terraced DIFFICULTY WITH ARCHITECTURAL TERMINOLOGY			Using er and pauses and truncated words here - not using correct terminology		ASP4 tilts her head upwards to gaze at the two 3D visualisations - she has traced over the original and coloured them in - both arms are down by her side	
	WHAT AND HOW		2.10	has redrawn and rendered the data by tracing over and using colour - no analytical annotation - refer to interview - NO SCRIPT, NO ANNOTATION - LIMITED RESPONSE TO TASK			Above and below illustrates what ASP4 is DOING - USING NONVERBAL MODES - ROLES - is there over reliance on nonverbal - literacy and functional issue???? -link to multimodality literature		Keeping her head in a tilted upwards position ASP4 extends her right arm and superimposes her forefinger onto the 3D street view of the terraced units. Her left hand remains by her side	
	Above illustrates what ASP4 IS SAYING - ROLES VERBAL MODES - HOWEVER LITERACY ISSUE		2.14							
			2.16						ASP4 tilts her head in an even more extreme upward direction and extends her arm so that she can superimpose her right forefinger onto the street view	

Figure 73: ASP40 Multimodal Observation Transcript















			2.18 (13 secs)				MAKES EYE CONTACT ONCE DURING THIS 13 SECOND SEGMENT		As she explains the units are joined together in a terrace ASP4 turns to make eye contact with the design tutors - disengages with drawings and puts her hand in the air
		SEGMENT 3 – PRECEDENT 2							
ASP40	<Yeah!>								
DST1:	Well, yeah, your description hasn't really related the strategies - 3.05(02.51) DST1 REFERS TO DESCRIPTIVE QUALITIES AND OMISSIONS NOT ANALYSIS		2.51						As DST1 feedbacks that in his view ASP4 has not addressed the architectural strategies ASP4 continues to gaze at her presentation materials
ASP40	<It is just like er, the simplicity of materials, and em, like, the openings, orientation of the living room em, downstairs and like very simple er, layout of, er, hou- - house.> 3.24(03.10)		2.59	Again, using the 3D sectional perspective to respond to tutors statement when a series of plans and sections are the expected type of drawing to explain orientation, layout etc.			ISSUES HIGHLIGHTED HERE HAVE TO DO WITH THE QUALITY OF THE RESPONSE ANALYTICALLY AND LITERACY ISSUES TO DO WITH THE FUNCTIONAL SPECIALISMS OF EACH DRAWING TYPE WITHIN VISUAL MODE AND ALSO LITERACY ISSUE ACROSS MODES – LANGUAGE ISSUE ALSO IN TERMS OF TERMINOLOGY – POSSIBLY ALL ARE RELATED PROBLEMS		ASP4 continues to gaze at her presentation sheets and interact with them physically by keeping her right hand superimposed on the 3D sectional view
	WHAT SHE IS SAYING – THE HOW – ARCHITECTURAL MECHANISMS BUT IN RESPONSE TO WHAT STRATEGIES?		3.10	ASP4 attempts to respond to DST1 comment and talks about materiality, openings and orientation... while continuing to gaze at and point to the 3D sectional view – again site plans with sun path, plans with layouts and assembly like drawings (sections) with annotation are the expected norm here	WHAT SHE IS RECORDING, SHOWING, REPRESENTING, DEPICTING (GIBSON, 1979) – STOREHOUSE OF KNOWLEDGE?		WHAT SHE IS DOING		
ASP40	The open plan even like, in this area of the kitchen and the living room [referring to presentation materials] er, make it really em maybe er, more adaptable if they want to change the layout, the bedroom as well. 3.40(03.26)		3.22	Again, here plans/layouts better drawing to explain layout - and concept of open plan -using 3D visualisation to explain – again relate to interview where ASP4 indicated found it easier to read 3D visualisations rather than plans and sections – expectation at third year level that the capacity to 'generate' and 'read' different drawing types is consolidated					ASP4 turns to make eye contact with DST1 and keeps her hand in physical contact with the 3D sectional view
	NEED FOR FLEXIBILITY AND ADAPTABILITY – NOW SHE MENTIONS ARCHITECTURAL STRATEGY WHAT, WHY, HOW - ANALYSING		3.26	As she begins talking about the open planning still referring to 3D sectional view when plans 'read' in conjunction with sections more appropriate choice of media					ASP4 turns back to gaze at the 3D sectional view while maintaining her superimposed finger on the drawing

Figure 74: ASP40 Multimodal Observation Transcript




















ASP40	Like this can be easily er, adapted to an office as well, because the layout is very simple and its open plan (no dividing walls between living, eating and kitchen). 3.49(03.34)		3.34 (43 secs)				MAKES EYE CONTACT ONCE DURING THIS 43 SECOND SEGMENT		ASP4 continues to gaze at the 3D sectional view, left hand down by her side	
SEGMENT 4 – PRECEDENT 2										
ASP40	...Er, so it's on a - modern houses but living in a traditional way of being er, outside. (10.08) encouraging being on cycles er, on bicycles or er, walking by having a big, like, spaces, for like parking or have a - even small parking between er, the - the - the recess of buildings or recess of type of building. 10.48(10.34)		9.58	didn't use this plan which shows car parking?? - instead reads it off from the textual information - better to have USED WHAT WAS shown also - plan is proof they did what they said they were going to do					As ASP4 starts to talk about precedent 2 she maintains eye contact with her audience her arms are slightly bent at the elbow with hands facing towards each other - again indicating spatial qualities she is referring to?	
	EXPLAINING AND ANALYSING (DECONSTRUCTING) WHAT, WHY, HOW DYNAMIC INTERACTION BETWEEN TALKING, SHOWING WITH PRESENTATION MATERIALS AND DOING WITH NONVERBAL MOOES	    	10.08 10.14 10.23 10.30 10.34 (32 secs)		  	    	USING HANDS TO EXPRESS SPATIAL ATTRIBUTES – LINK TO LITERATURE USES HAND GESTURES THROUGHOUT HOW THE VISUAL MESSAGE IS CONSTRUCTED AND USED AS REPRESENTATION/OBJECT – DIFFERENT KINDS OF SEEING – AS ITSELF, REPRESENT ARCHITECTURE AND HOW IT IS COMPOSED – HOWEVER CRUCIAL ELEMENTS OF STORY MISSING IN ASP4S – PRESENTATION – DOES NOT USE THE PLANS, SECTIONS AND ELEVATIONAL STUDIES SHE HAS PINNED – ALSO THESE DRAWINGS ARE TAKEN DIRECTLY FROM SOURCES NO ATTEMPT TO OVERLAY HER OWN ANALYSIS OR RECONSTRUCT IN A PROCESS OF TRANSLATION – WHY?	Cluster of nonverbal modes in play as well as a cluster of multimodal resources – as orchestrated ensemble – link to Baden Ian Eunson 2015 and Multimodality literature	ASP4 continues to maintain eye contact with audience – her body is almost fully turned towards the two tutors' arms and hands still in bent position Turns, tilts her head upwards and engages physically with site plan on presentation sheet – superimposes right hand onto the site plan – still in half turned position - left arm down by her side Tilts head even more backwards and superimposes right forefinger on development layout plan to talk about the spaces between the units Half turns back towards audience as she uses her hands to indicate spatial qualities ASP4 tilts head up and disengages physically while continuing to gaze at presentation sheets and using hands to indicate spatial qualities	ASP4s pattern of interaction similar to ASP2 in that there are periods when she engages solely with the presentation materials as she speaks without making eye contact with tutors or audience and then periods when she is making eye contact with tutors and audience but not interacting with her presentation materials

Figure 75: ASP40 Multimodal Observation Transcript

Appendix 1D5: ASP50 Multimodal Observation Transcript




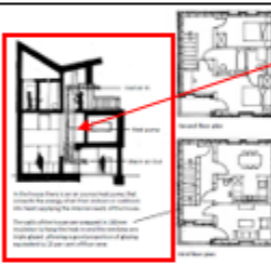



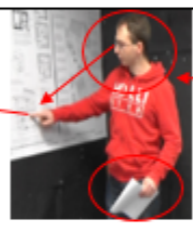


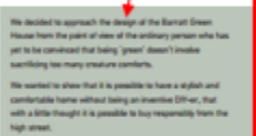


ASP50	Multimodal transcript	Architectural Student Participant 5 (ASP50)	OBSERVATION	VISUAL	NONVERBAL	NOTES TO SELF	
	Dialogue and sounds	Videotape segment SEGMENT 1 – PRECEDENT 1	NOTES TO SELF	Visual modes segments from presentation sheets and close up visuals relating to what the asps interacts with during the orchestrated ensemble	nonverbal communication – note - PARALINGUISTICS - use of volume, pitch and tone - intonation, pitch, quality of voice (Gorden, 1980) - did not focus on this to any great degree unless noted in dialogue - probably because of my deafness hard to pick up unless it was really emphatic then i noted it in the transcription	NOTES TO SELF	
	this student's review was sixth of the eight participants and agreed time intervals were not strictly adhered to. This student started speaking before the video camera was set up and running (10seconds approximately) Presentation 9 minutes and 23 secs	Sources - Precedent 1 https://www.google.ie/url?sa=t&rc=1&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahJKEWjFmJndtKzMAhXpKcAKHXDhQDFggBMAA&url=https%3A%2F%2Fwww.bre.co.uk%2Ffilelibrary%2Finnovation_Park%2FBarratts_Green_House8_rochure.pdf&usq=AFQjCNIH4Cxb-Jl8nuGovNGu7KSU7IPFvA&sig2=HzaQuqIVZ7kRjoHg8kRncQ Precedent 2 https://www.google.ie/url?sa=t&rc=1&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=0ahJKEWjFmJndtKzMAhXpKcAKHXDhQDFggBMAA&url=http%3A%2F%2Fwww.bre.co.uk%2Fblog%2Fhouse-future-comfort-haus&usq=AFQjCNIH4Cxb-Jl8nuGovNGu7KSU7IPFvA&sig2=HzaQuqIVZ7kRjoHg8kRncQ ASP5 uses a separate hand held script throughout his review	 Precedent 1 - Sheet is laid out using imagery and text directly from sources – layout plans for different levels laid out as expected – 3D sectional view takes up the whole of the lower half of the sheet – foregrounded – not design info – does start with general information	 ASP5 uses a range of media – visual and textual annotation taken from data sources directly. The sheet for Precedent 1 is organised differently to the sheet for precedent 2 probably because he had difficulty finding relevant drawing types and information for precedent 2. In both cases, there are no site plans/contextual information or links to design approach/ideology and associated architectural strategy – uses what he finds descriptively – no overlaid analysis of his own, very little attempt to put into his own words	PROXEMICS - use of interpersonal space - how space is organised - seating arrangements, distance between presenter and peers and tutors (Gorden, 1980) ASP5 uses the boards parallel to the main studio wall. His presentation sheets are hung so that the top part of both sheets is above eye level. He stands about a foot away from his presentation materials. His body is at a right angle to his boards and his back is to the L shaped board projecting into the studio. The audio device is on a stool to one side. Both design tutors sit on low chairs about 4/5 feet away directly in front of ASP5's presentation sheets and his peers are behind them. I was positioned behind the video camera to one side with a diagonal line of sight	CHRONEMICS - use of time - amount time each person gets and also relates to - pacing silence (Gorden, 1980) ASP5 uses pauses, truncated words and sentences – control mechanism?	KINESICS - use of bodily movements - hands, facial expression, legs (Gorden, 1980) Like his colleagues ASP5 uses gestures and facial expressions throughout his presentation
ASP50	Er, the house contains a -em, a source heat pump that converts the cool air externally to warm air internally, 37.27(00.10) So I just showed that [referring to presentation materials] it is located on the second floor and you can see it here again, but that converts the - it takes all the cool air outside and converts to warm air inside. 37.36(00.19)		0.10 Using a sectional view to show location of the heat pump and associated ducting – all the information on ASP5's presentation sheets taken from data sources directly – did not attempt to convert/translate the drawings into his own analytical work – using imagery and text directly from sources – sometimes verbal sentences do not make sense. Does not speak about or make any analytical comment on the ideology underpinning design approach – launches into the technical detail of how the unit is assembled			ASP5 stands almost perpendicular to his presentation materials so that his body is half turned towards both design tutors and his peers. He has a script in his left hand and his right arm is extended as he points at the sectional view of the unit	Cluster of nonverbal modes in play as well as a cluster of multimodal resources – as orchestrated ensemble – link to Baden Ian Eunsou 2015 and Multimodality literature – however there are problems here in terms of the meaning making – reading from script and pointing to imagery taken directly from data source with no overlaid or constructed analysis
	USING ARCHITECTURAL TERMINOLOGY – BUT IS IT JUST A CASE OF RECITING INFORMATION TAKEN FROM DATA SOURCES? – ALSO, MOVES STRAIGHT TO TECHNICAL DETAIL – NO IDEOLOGY/DESIGN INFORMATION		0.13 imagery and text taken directly from data source – need to make point that the asps sent me their sources i doubled checked these - and also looked for and in some instances found more data even though student may have indicated problem sourcing information – some of what I found highly relevant			ASP5 shifts his gaze to look downwards at the 3D sectional view of the unit at the bottom of his sheet. His right forefinger is superimposed on the drawing as he reiterates his point	
	 Doesn't use any of source design imagery – which would have helped him identify architectural design strategies		0.19 I checked the data source for this project and ASP5 is using text and visuals verbatim, while at the same time omitting to use key information of both a textual and visual type (design info) 			ASP5 turns his head to make eye contact with his audience as he remains physically engaged with sectional view – right forefinger is now superimposed onto the drawing. His left arm is by his side and he is holding a script in his left hand	

Figure 76: ASP40 Multimodal Observation Transcript











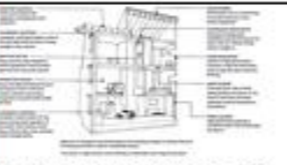


ASP50	The house is wrapped in 180mm insulation to keep the heat in and all windows are triple glazed er, taking up twenty-five per cent of the total floor area of the house. 37.49(00.32)		0.32	ASP5 reads directly from a script – the text is taken directly from data sources					ASP5 looks down at his script as he reads. His script is held in both hands
ASP50	The structure of the house, the walls are concrete masonry aircrete blocks, and the floor is a concrete floor slab to provide a robust frame for thermal mass. 38.01(00.44)		0.44	ASP5 just continues to read script – description of assembly – no attempt made to explain, analyse – also we have no indication of design thinking or overall architectural design strategies – jumps straight into technical detail which is all taken from data sources directly and regurgitated – both in the script and on the drawings	ROLES OF VISUAL MEDIA NOT USING VISUAL MEDIA TO SHOW DEMONSTRATE READING FROM SCRIPT – DESCRIPTIVE		WHAT HE IS DOING		As he continues to read ASP5 turns his body and his head more towards his design tutors as he leans towards them. He is still reading from his script which is held in both hands with elbows bent
ASP50	Er, to help reduce er, problems of over-heating within the house. 38.06(00.49) WHAT HE IS SAYING (READING FROM SCRIPT)		0.47	There appears to be a lack of understanding to do with what analysis entails in this context – off target in terms of expectations – his explanation linked to evidence on sheets – particularly his own drawings/analytical diagrams are the expected evidence of responding to the task analytically – these are missing – surface response???? No evidence of process of translation – addresses the task as one in which focus on getting information and arranging it on a sheet, making notes – not necessarily on understanding	WHAT HE IS RECORDING, SHOWING, REPRESENTING, DEPICTING (GIBSON, 1979) – STOREHOUSE OF KNOWLEDGE? OVERALL LITERACY ISSUE? – IS THERE A PROBLEM TO DO WITH UNDERSTANDING, INTERNALISING, APPLYING – LINK TO LITERATURE – USES WHAT HE FINDS VERBATIM BUT IS HE DEMONSTRATING A LACK OF UNDERSTANDING		Above and below illustrates what ASP5 is DOING – USING NONVERBAL MODES – ROLES – TO POINT TO – TO MAKE EYE CONTACT- BUT HOW DO THESE GESTURES CONTRIBUTE TO MEANING MAKING – IS THERE A DIFFICULTY WITH SURFACE VERSUS DEEP LEARNING?? – LINK TO MULTIMODALITY LITERATURE		ASP5 looks up and makes eye contact with both tutors one of whom is looking away. He continues to hold his script in both hands with elbows bent – He finishes the point he is making without looking at his script – is he trying to signal understanding?
ASP50	Er, then, the next most important thing that I found on the precedent was, it had spoke about all these ecological parts of the house that was built. 38.16(00.59)		0.52	Reading from presentation sheets	ROOFTOP PLANTING North roof planted with vegetation enlarging the local ecosystem		Much of the expected kinds of data are present – talk, text, imagery – plans, sections, 3D visualisations – although site plans and other kinds of related contextual information are missing. The issue here though has to do with ASP5's apparent lack of analytical engagement with the data – he is showing no evidence of translating, or attempting to internalise and understand and relate		ASP5 turns away from the audience and reads text on his presentation sheets. He continues to hold his script in his hands as he looks down at his presentation sheets
			0.53	Possibly the interaction happening here is showing how important it is for different modes to work together to foster and show 'thinking' – gestures without visual, textual or verbal analysis/reasoning is probably not meaningful – need to link to literature – do not think this is linked to the fact that all information sourced digitally – this issue is present here regardless of where information sourced	 He has manipulated the images – like ASP4 he has removed important visual detail from his version of the original – is this an attempt to show his own overlaid analysis? Or lack of understanding - meaning		 Original source 3D sectional analytical diagram – ASP5 strips away detail why?		As ASP5 continues to gaze at his presentation sheet for precedent 1 he points the forefinger of his right hand at the sheets

Figure 77: ASP50 Multimodal Observation Transcript


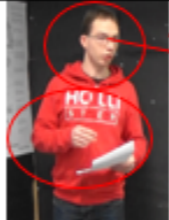











			0.56					ASP50 turns towards both tutors and peers making eye contact as he finishes point. His script is held in his left hand and his right arm is bent with palm facing towards his abdomen	Cluster of nonverbal modes in play as well as a cluster of multimodal resources – as orchestrated ensemble – link to Baden Ian Eunsen 2015 and Multimodality literature – again issue here around quality of the meaning making	
			0.59 (49 secs)	IS THIS A CASE OF ASP50 THINKING GOING THROUGH THE STEPS IS THE LEARNING? – THIS ISSUE HAS TO DO WITH LEARNING/CAPACITY FOR LEARNING – LINK TO MULTIMODALITY FRAMEWORK – CHAPTER 3 ON LEARNING AND TRANSFORMATION				ASP50 disengages with tutors and his presentation materials as he reengages with his script and finishes reading his point. He tilts his head in a downward direction and he superimposes his right forefinger onto the script to guide his reading		
		SEGMENT 2 – PRECEDENT 1								
DST1:	<is this> - is this seen as er, a terraced house, I know it's built on its own, but is it seen as er, a row house or a semi-detached house or what is it?> 39.08 (01.51)		1.44	In this segment the tutors interject to pull back the presentation to the expected response about design strategy – what it offers in terms of design problem ASP50 is addressing in his project – ASP50 needs to show he has analysed the precedent in respect of prototypical characteristics – using plans, sections, elevations... AND USE ORCHESTRATED ENSEMBLE TO SHOW THIS AS HIS EVIDENCE	<p>Research plans to take the most successful aspects of the Green House design and apply them to houses that we build in future. Early findings from the test house construction include:</p> <p>The basic 100m Green House wall structure is comparatively simple to erect and provides an opportunity for improved air permeability, natural and forced fresh air, which makes the system capable of being used on future developments. It would also use white facades, allowing completion when required.</p> <p>Information taken directly from source by me Information about this unit as a prototype – omitted by ASP50</p>			ASP50 tilts his head to one side and covers his mouth as he makes eye contact with DST1. He is holding his script in his right hand – signalling attention? ASP50's body is half turned towards audience		
			1.51	Throughout this segment ASP50 remains disengaged physically from his presentation materials although he does turn to gaze at them/possibly read from them or 'see' what the two tutors are referring to				ASP50 moves his right hand away from his mouth now both hands are down by his side with his script in his left hand. His head remains tilted to one side and he maintains eye contact with DST1. Body turned towards audience		
ASP50	It's built on its own so terrace. 39.10(01.53)		1.53	Incorrect response – mixed up between detached and terrace terminology – dyslexia or lack of understanding or both??? – misreading/interpreting of source data?? – because options for terrace in source data – why did ASP50 miss this in the data?	 <p>Option for terrace taken by me from ASP50's source data</p>			Still maintaining eye contact with DST1 and keeping his head tilted and his body half turned towards tutor ASP50 responds to DST1's question incorrectly		
DST2:	A terrace is, it's combined -- 39.13(01.56)		1.56	DST2 corrects ASP50's mistake and explains briefly why				ASP50 continues to make eye contact with DST1 and DST2. Head tilted to one side and his body half turned. Arms and hands by his side. His script is in his left hand		
DST1:	<if it's on its own it's detached.> 39.14			DST1 elaborates						
ASP50	Detached! 39.14(01.57)									

Figure 78: ASP50 Multimodal Observation Transcript








DST1:	Yeah, so that's - what is the idea for this house isn't that it's a detached house, I see there's, like, no windows on one wall there, [referring to presentation materials] and are you able to stack these together, what was the idea behind this? 39.24(02.07)		1.58 2.02 2.07	<p>I went to digital data sources student participants sent me - in this instance ASP5 has omitted large segments of relevant data of a visual and textual nature</p> <p>DST1 'reads'/interprets ASP5s presentation artefacts - form of directive correction?</p> <p>AS WELL AS DIFFERENT KINDS OF SEEING IN THE CONSTRUCTING, COMMUNICATING, MEANING MAKING ASSOCIATED WITH THE ORCHESTRATED ENSEMBLE - THERE IS ALSO THE SAME DIFFERENCES/KINDS OF SEEING INVOLVED WHEN DECONSTRUCTING THE RESEARCH MATERIAL (OTHER PEOPLES ORCHESTRATED ENSEMBLES) WHILE ENGAGING IN THE PRECEDENT STUDY TASK - WHAT HAPPENS IF YOU CANNOT PROCESS WRITTEN LANGUAGE? - WHAT HAPPENS IF YOU CANNOT 'SEE'</p>	<p>The solid external wall block system is capable of supporting a variety of finishes such as render, brickwork slips and tiling, to produce interesting and diverse exteriors which would assist with planning authority approvals.</p> <p>Information from source website DST1 probing to see if ASP5 understands that this is a prototype - contains design strategies that could be applied in range of contexts - ASP5s response appears to indicate he does not - plus he omitted key information about this from his presentation why?</p>		<p>REMAINS DISENGAGED FROM PRESENTATION MATERIALS</p> <p>Above and below illustrates what ASP5 is DOING - USING NONVERBAL MODES - ROLES - BUT HOW DO THESE GESTURES CONTRIBUTE TO MEANING MAKING - WHAT KIND OF MEANING? LINK TO MULTIMODALITY LITERATURE</p>	<p>ASP5 turns back towards his presentation materials as DST1 draws his attention to the data on the sheet. His right arm is held slightly forward of his abdomen and he still holds his script in his left hand</p> <p>ASP5 turns back towards design tutors with his head tilted to one side. His arms remain down by his side with his script in his left hand held in an upwards position. Both knees are slightly bent with his left foot in front of his right as he leans forward</p> <p>The he turns his head and body back to engage with and gaze at his presentation materials though he does not touch them</p>	
ASP50	Er, well- -		2.15		 <p>took this from ASP5s source materials clearly there is information about how the one unit could be used in a terrace of units</p>			<p>ASP5 turns away from his presentation materials and makes eye contact with DST1 as DST1 comments emphatically about the precedent</p>	
ASP50	Well the concept behind it was to achieve zero carbon emissions. 39.37(02.20)		2.17 2.20	<p>ASP5s RESPONSE IS NOT RELATED TO QUESTION ASKED BY DESIGN TUTOR - TUTORS TRYING TO PRIME ASP5 ABOUT THE NATURE OF THIS DEVELOPMENT? GET HIM TO THINK ABOUT ITS PROTOTYPICAL CHARACTERISTICS - TO 'READ' HIS PRESENTATION MATERIALS DEDUCTIVELY...</p> <p>ASP5 maintains similar kind of poses while the design tutors speak. He does not attempt to use his presentation materials to show understanding plus evidence. Rather he relies on reading from his script - issue here with functional specialisms of different modes as well as understanding, 'reading' and 'seeing'?? Link to multimodality literature and architectural literature because he is not giving the expected response to the task here or generally</p>	<p>Notice no visuals in any part of this segment - relying on gazing at his presentation materials but reading from script</p>			<p>ASP5 starts to read from his script which is held in his left hand. He gazes downwards while his right arm and hand are by his side. His head is tilted in a downwards direction</p> <p>ASP5 looks up and gazes at DST1. Are his facial expressions indicative of defensiveness??</p>	

Figure 79: ASP50 Multimodal Observation Transcript











DST1:	I know that. 39.38(02.21)								
ASP50	So, it's -39.40 (02.23)		2.23		No physical engagement with presentation materials- visual and textual media				ASP5 attempts to respond. His head is tilted to one side as he maintains eye contact with DST1
DST1	<But, this is for a- - like, a- - a house builder, okay (name of builders) are one of the largest house builders in the [geographical location].> 39.48(02.31)		2.31	DST1 interjects again - not allowing ASP5 to respond - sign of frustration??					AS DST1 interrupts ASP5 continues to make eye contact. His head remains tilted to one side and his arms remain at his side. His script remains in his left hand
ASP50	Yeah!			Defensive??					
DST1	So, they're building THOUSANDS of houses- -39.51(02.34)		2.31	ASP5 still maintains similar kind of poses while the design tutors speak. He does not attempt to use his presentation materials to show understanding plus evidence. - issue here with functional specialisms of different modes?? Link to multimodality literature and architectural literature because he is not giving the expected response to the precedent study task here or in a general sense					ASP5 straightens up as DST1 speaks emphatically. Maintains eye contact. His right hand is held in a fist. Continues to hold his script in his left hand - Are these gestures indicative of defensiveness?
ASP50	<There's a few of these ones, yeah.>			Defensive??					
DST1	- hundreds of thousands of houses a year or thous - tens of thousands of houses a year; so how does this - how do these sit together? 39.59(02.42) is there - is there several models of it, is - is it just this one type, or is there two-bed, three-bed, four-bed? 40.06(02.49)		02.42	DST1 continues to probe/question ASP5 about this precedent knowing that there was a wealth of information available on how this prototypical unit could be developed in different contexts. DST is pausing, using truncated words - is this indicative of tension or irritation on his part??					ASP5 maintains eye contact with DST1. He tilts his head to one side. His arms and hands are by his side his right hand is unclenched
			02.49	ASP5s pattern of interaction is dominated by reading from his script and gazing at and listening to tutors input					ASP5 appears to be getting ready to respond here as he continues to gaze at DST1. His head remains tilted to one side and his arms remain at his side. His script remains in his left hand by his side

Figure 80: ASP50 Multimodal Observation Transcript













ASP50	There's just this one type, within it that I could find. 40.07(02.50)		02.50	<p>Barratt plans to take the most successful aspects of the One House design and apply them to homes that we build in future. Early findings from the test house construction include:</p> <p>Textual information from ASP5's source material indicating designers intentions around how this prototype could be used flexibly</p> <p>So both visual and textual data available in ASP5's source materials that contradicts this statement - why did he not 'see' it or 'read' this analytically? - back to learning issue - link to multimodality literature and architectural literature - lack of visual and mental reasoning? - does dyslexia compound the problem?</p> <p>I found different floor plan arrangements in ASP5's source data shown here - ASP5 did not 'see' or 'read' this or use these source materials in his presentation - unaware? Dyslexia causing 'seeing' problem???</p>  <p>Different spatial layouts shown here</p>				As he answers ASP5 straightens up maintains eye contact with DST1. Both arms are by his side and his script remains in his left hand. His right hand is open with palm facing inwards
DST1	Is there potential to develop it into anything else or -- 40.11(02.54)		02.54					ASP5 maintains eye contact with DST1 as he gets ready to respond to the question DST1 poses. His arms remain at his sides with his left arm and hand slightly forward of his body. His script remains in his left hand
ASP50	<Not for this one but in my next precedent there is.> 40.13(02.56)		02.56	<p>Again this is not correct. There is data in ASP5's sources that points to the ways this prototype could be developed. Again is it that he did not 'see' it or 'read' it during the task? Has he forgotten? Why did he not think this data important in terms of the task??</p>				ASP5 continues to gaze at DST1 as he answers the question. He continues to maintain pose outlined above
DST1	Okay.							
ASP50	This one doesn't - they have nothing on the - online where I read up about it, to say that there was potential to develop it on and do further improvements to it. 40.23(03.06)		02.57	<p>This is not a correct statement - the data ASP5 needs is within the sources that ASP5 sent me which checked and extracted the information above from - no 'reading/interpreting' going on so there is an issue around 'seeing' - text or visual - link to literature - architectural and multimodality - The document ASP5 sourced online does address potential/future developments</p>  <p>The next step</p>				ASP5 turns to gaze at his presentation materials. His head is tilted in a downward direction. His right arm is by his side with open fist. His left arm is bent at the elbow and he holds his script in his left hand which is in front of his abdomen - Does this turning away to gaze at presentation materials indicate an issue??
			02.58					ASP5 turns away from his presentation sheets to make eye contact with DST1

Figure 81: ASP50 Multimodal Observation Transcript

			03.03 (1 min and 59 secs)	ASP5 remains physically disengaged from his presentation materials. He does turn to gaze at them					ASP5 turns back to gaze at his presentation materials as he finishes making his point about not being able to locate the relevant data within his sources – DOES HE KNOW THAT HE IS INCORRECT?	
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ASP5 LOCATED EVEN LESS INFORMATION ON HIS ASSIGNED SECOND PRECEDENT. IN THIS INSTANCE, I ALSO FOUND IT DIFFICULT TO FIND/LOCATE VISUAL AND OR TEXTUAL DATA ON THIS DEVELOPMENT. HOWEVER, ASP5 MADE THE DECISION TO USE WHAT HE FOUND (NO PLANS, SECTIONS, NO DESIGN INFORMATION) RATHER THAN SOURCE AN UNASSIGNED BUT RELEVANT PRECEDENT THAT HAD THE CORRECT TYPES OF DATA – TEXTUAL DESCRIPTION AND ANALYSIS, VISUAL – ANNOTATED SITE PLANS, PLANS, SECTIONS, ELEVATIONS, 3D VISUALISATIONS. FOR THESE REASONS, I FOCUSED ON SELECTED SEGMENTS FROM PRECEDENT 1

Figure 82: ASP50 Multimodal Observation Transcript

Appendix 1D6: ASP60 Multimodal Observation Transcript





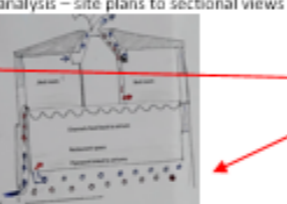
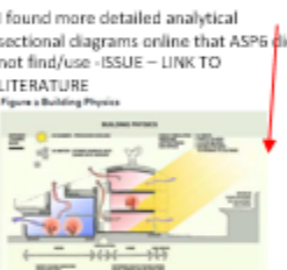
ASP60	Multimodal transcript	Architectural Student Participant 6 (ASP60)	OBSERVATION	VISUAL	NONVERBAL	PARALINGUISTICS	KINESICS	NOTES TO SELF	
	Dialogue and sounds	Videotape segment SEGMENT 1	NOTES TO SELF	Visual modes segments from presentation sheets and close up visuals relating to what the asps interacts with during the orchestrated ensemble	nonverbal communication – note - PARALINGUISTICS - use of volume, pitch and tone - intonation, pitch, quality of voice (Gorden, 1980) - did not focus on this to any great degree unless noted in dialogue - probably because of my deafness hard to pick up unless it was really emphatic then I noted it in the transcription				
	<p>ASP6s presented for 21 minutes and 53 seconds, over double the allotted time. His review took place first and as a result several minutes were allotted to introducing the task generally. This does not account fully for the extended presentation time – LONG MONOLOGUES</p>	<p>Large segments of ASP6s presentation revolves around talking and nonverbal communications – gazes, laughing, hand gestures, movement, fiddling with glasses, where there is no physical engagement with his presentation materials, interspersed with shorter periods of using and interacting physically with his presentation materials – textual and visual media – missing components in terms of expected response – to do with difficulties ASP6 experiences researching because of his dyslexia – finds and loses sources – I found sources that contained relevant information in range of visual media</p>  <p>I sourced this assembly detail and interior image online that ASP6 did not use</p> <p>Sources sent to me by ASP6 http://www.langstaffday.co.uk/project/to-go-tall-terrace/ http://goo.gl/3mYVC https://goo.gl/rvQ46t</p> <p>MY SOURCES http://www.bioregional.com/wp-content/uploads/2014/10/BedZED-seven-years-on.pdf http://design.uoregon.edu/studio/coho/precedents/BedZed-chatto.pdf http://www.langstaffday.co.uk/project/to-go-tall-terrace/ [ASP6 SENT THIS SOURCE TO ME]</p> <p>ASP6 does not use a separate hand held script or set of prompts – indicates difficulties with reading/interacting with text in his interview – link to interview</p>	<p>Precedent 2 Annotation is for identification purposes. There is no overlaid analysis either diagrammatically (visual) or textually – mixture of drawings - 2 interior views given prominence at bottom of sheet</p>  <p>No analytical annotation, no coding...</p> <p>I FOUND MATERIAL ON THIS PRECEDENT IN HIS SOURCE THAT ASP6 DID NOT USE – WHY???</p> 	<p>Precedent 1 Annotation is for identification purposes. All of the drawings here are produced by means of tracing over the originals and applying symbols and colour to signify different aspects of the drawing – such as green to denote gardens/open space. However, there is no overlaid textual analysis – site plans to sectional views</p>   <p>Another detail I sourced online that ASP6 did not use</p> <p>I found more detailed analytical sectional diagrams online that ASP6 did not find/use -ISSUE – LINK TO LITERATURE</p> 	<p>ASP6 has sourced a range of visual media – site plans, layout plans, sections, sectional views, and interior and exterior 3D imagery. However overlaid analysis is minimal and mainly confined to precedent 1</p> <p>However visual media and textual analysis available online that ASP6 did not find/use</p> <p>ASP6 redraws layouts and colours them in but there is no overlaid textual analysis – he sent me a 'clean' digital copy of drawings. He omitted one sheet. I photographed his presentation materials on the day of the review and I include some of these here (including drawings from missing sheet). Notice no analytical annotation – no height lines in sections or dimensions on plans –</p> <p>LACK OF UNDERSTANDING OF FUNCTIONAL SPECIALISMS OF DIFFERENT COMMUNICATION RESOURCES?? MAJOR ISSUE WITH RESEARCHING PROCESS LINKED TO DYSLEXIA?? - LINK TO LITERATURE- IMPACT ON CAPACITY FOR LEARNING – CH3 MULTIMODALITY FRAME</p> <p>LITERACY ISSUE ACROSS MODES</p>	<p>PROXEMICS - use of interpersonal space - how space is organised - seating arrangements, distance between presenter and peers and tutors (Gorden, 1980)</p> <p>ASP6 hung his work on boards parallel to main studio wall and facing into the studio space, just beside the entrance into the studio. One sheet was hung on the board projecting into the studio. The audio device is on a stool to the right of his standing position. He is standing about a foot away from his presentation sheets. The sheets are hung at eye level. Both design tutors are sitting about five feet away from the presentation materials and his peers are behind them. I am standing behind and to the left of the design tutors with the video recorder</p>	<p>CHRONEMICS - use of time - amount time each person gets and also relates to - pacing silence (Gorden, 1980)</p> <p>ASP6 uses er and em, pauses and truncated words and sentences – again is this to manage thinking and framing what he wants to say?</p>	<p>KINESICS - use of bodily movements - hands, facial expression, legs (Gorden, 1980)</p> <p>ASP6 uses a variety of facial expressions, gaze, hand and body gestures, and body movements - including leaning forwards, fiddling with his glasses, pointing and superimposing his hand/fingers on his presentation materials throughout his presentation</p>	NOTES TO SELF
DST2	What is the project brief? 00:36(00:24)								

Figure 83: ASP60 Multimodal Observation Transcript


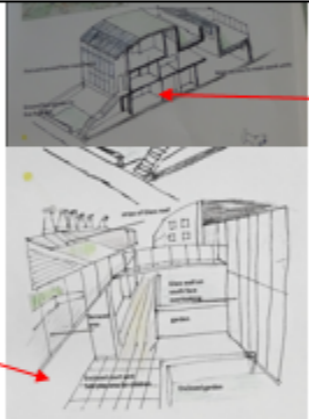






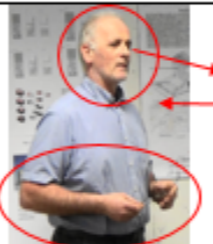
ASP60	<p>Er, em, it was to look at - in this particular one, it was looking at sustainable homes and sustainable living. 00.48(00.36)</p> <p>IDENTIFYING GOAL BUT NOT EXPLAINING HOW GENERALLY OR SPECIFICALLY - 'WHAT' BUT NO 'HOW' OR 'WHY'</p> <p>ARCHITECTURAL TERMINOLOGY</p> <p>NOT ANSWERING DST2S QUESTION</p>		<p>0.31</p> <p>ASP60 states that he has a high level of difficulty processing verbal and literal language in his interview. Need to link this to multimodality literature. He is a mature student from a building background and he also expresses the view, in his interview, he is most comfortable with visual media. While he does make many of his own diagrams as a response to the precedent task he focuses primarily on using visual language. He cuts and pastes many images or redraws them without superimposing an analytical annotation/text/coding and 'reads' from the visual data taken from his sources as he speaks. We discussed this in his interview so I need to link to his comments - what happens when he is not there to explain??? - presentation sheets are a message in themselves - this is the expectation</p>			<p>ASP60 uses er, em, pauses - to gather his thoughts as he responds?</p>	<p>ASP60 stands half turned towards his presentation materials and both design tutors and peers as he gazes at, and points towards, a sectional perspective drawing on his presentation sheets with his left hand. His right arm is bent and he holds his glasses in his right hand.</p>	<p>A 3D visualisation or photo would have been helpful here - situated within site context - So while ASP60 is interacting physically with his presentation materials while he speaks and uses nonverbal communication resources - no sense he has thought about how to deliver his message - both to do with how presentation sheets are constructed and presenting - appears to just happen - link to literature</p>
ASP60	<p>In the other project then it was looking at the different, em, house types and, that is not what you are looking for. 00.58(00.46)</p>		<p>0.43</p> <p>THE ABOVE ISSUES PROBABLY AFFECTS AND IMPACTS ON LEARNING/CAPACITY FOR LEARNING - LINK TO MULTIMODALITY FRAMEWORK - CHAPTER 3 ON LEARNING AND TRANSFORMATION</p> <p>ASP60 TALKS ABOUT HOW DIFFICULT RESEARCHING IS IN EITHER ANALOGUE (HARD COPY) OR DIGITAL SOURCES - PREFERS TEXT IN DIGITAL SOURCES ONLINE SMALLER AMOUNTS OF TEXT TO READ ON SCREEN AT A TIME - HOWEVER CANNOT MANAGE FILING SOURCES - CANNOT REMEMBER AND CANNOT READ FILE MANAGEMENT SYSTEMS (FROM INTERVIEW - LINK)</p>	<p>DISENGAGED FROM PRESENTATION MATERIALS - GENERAL DATA NOT PART OF OUTPUT</p>		<p>ASP60 uses em</p>	<p>ASP60 turns to make eye contact with both design tutors as he introduces his precedents. Both arms are bent and he holds his glasses in both hands in front of his abdomen</p>	
			<p>0.46</p>				<p>ASP60 smiles as he states that he has registered he is not answering DST2s question. He makes eye contact with DST2 and he continues to hold his glasses in both hands in front of his abdomen. His head is tilted to the right</p>	
DST2	<p>No, we were asking, what is - what is the project? What is the current studio project? 01.00(00.48)</p>		<p>0.48</p> <p>DST2 restates question</p>				<p>ASP60 straightens up as he continues to make eye contact with DST2 signalling attention to DST2s question? He continues to hold his glasses in both hands in front of his abdomen.</p>	

Figure 84: ASP60 Multimodal Observation Transcript











ASP60	Oh, it is em, related to the- the (location) for the (location) street site. 01.12(01.00) TALKING IS MAINLY ABOUT IDENTIFYING LOCATION AND STILL DOES NOT ADDRESS THE QUESTION DST2 ASKES DIRECTLY		0.53			ASP6 uses em, pauses in conjunction with facial gestures and hand and head movements to signify thinking as he responds	ASP6 closes his eyes as he tilts his head downwards. He points over his left shoulder with his glasses at his presentation sheets as he begins answering DST2s question. His right arm remains bent with his hand in front of his abdomen. His hand is closed with palm facing towards his chest
			0.54	Miminal physical interaction with presentation materials during this interaction - there is no data relating to the project generally on his presentation sheets (Not asked to do so) - the materials on his presentation sheets relate specifically to the precedent study task. IS THERE IMPLICIT ASSUMPTION STUDENT WILL PLACE TASK IN CONTEXT?? DOES NOT GRASP DST2S QUESTIONS AND SO ANSWERS OBLIQUELY			ASP6 tilts his head forwards and downwards so that his chin is almost touching his chest. His eyes remain closed and he holds his glasses up in his left hand. His left arm is bent upwards and his right arm and hand remain folded across his abdomen
			1.00 (69 secs)	LITERACY ISSUE ACROSS VERBAL AND VISUAL MODES??		WHAT ASP6 IS DOING - USING NONVERBAL MODES - ROLES - BUT HOW DO THESE GESTURES CONTRIBUTE TO MEANING MAKING HERE? - WHAT KIND OF MEANING? LINK TO MULTIMODALITY LITERATURE	ASP6 looks up and opens his eyes making eye contact with DST2 as he finishes making his point. He returns to holding his glasses in both hands which are held in front of his abdomen. His head is tilted to the left side
		SEGMENT 2 - PRECEDENT 1					
DST2	This is your precedent- these -						
ASP60	<These are the precedents that I was asked to look into.> 02.34(02.24) [precedent one] I think is how you pronounce the first one. 02.39(02.29)		2.19	ASP6 has a selection of visual media on his sheet for precedent one - including site location, site plan, small scale plans, sections, sectional views and 3D imagery. He uses a range of architectural symbols for analytical purposes including arrows and colour. However, as I said above he has not superimposed or overlaid analytical annotation - he focuses primarily on using visual language and verbal explanation - again what happens when he is not there??			As ASP6 responds to DST2s comment he turns towards his presentation materials and points at his sheet for precedent 1 as he gazes at the sheet generally.

Figure 85: ASP60 Multimodal Observation Transcript
















ASP60	Ahm, (precedent two) is - the second one. 02.43(02.33) Em, the (precedent one) actually exists. It is a project that was done in {city}, done in South Side; so, it is in the Yuppy side of {city}. 02.54(02.44)		2.27	Like ASP4 and ASP5, ASP6 has difficulty using architectural terminology. This issue possibly arises for similar reasons for ASP5 and ASP6 because both have difficulty processing written and verbal language generally, while ASP4s (and ASP8s) difficulty possibly stems from the fact English is not her first language - need to link to literature - is end result the same though in the sense not internalising and using 'accepted' terminology - puts all three at a disadvantage? Is it impacting on their meaning making?		INTERACTION BETWEEN VISUAL VERBAL AND NON-VERBAL MODES	As he continues to gaze at his presentation sheets ASP6 identifies precedent 2. And he explains this project is in existence. ASP6 is standing at an angle to his presentation sheets and his head is turned fully towards them as he speaks. He leans in towards his presentation sheets	Using a range of gestural and directional movements - to signal attention - attentiveness to his work (presentation materials) outputs and also to direct attention to materials - this shows the multi-layered nature of the interaction - however question over right visual media for the job? Detailed site plan? - And level of analysis??
			2.38	Says in his interview relies heavily on his memory to recall details - difficult to do in a multilayered communicative meaning making event like this			ASP6 has put on his glasses to see - HE IS NOT INTERACTING PHYSICALLY WITH HIS SHEETS	
ASP60	This is the actual site here that they're working on. 02.57(02.47) IDENTIFYING AND SHOWING - NOT ANALYSING - WHAT AND WHERE - NO WHY OR HOW		2.47	 Here ASP6 has outlined the relevant site on the zonal site plan using a red box - however a detailed layout contains more information I sourced detailed layout online that ASP6 did not find/ access/use	 		ASP6 moves to interact with his presentation materials using his glasses in his extended and outstretched left arm and hand he points out the actual site on the zonal site plan which is highlighted with a red box	
ASP60	Em, it was some form of an old em, what do they call it? em, sewerage plant or, water treatment - 03.07(02.57) USING ARCHITECTURAL TERMINOLOGY HERE ROLES VERBAL MODE LIMITED - TO IDENTIFY, EXPLAIN ONLY DESCRIPTIVE		2.52	NEED FOR INSIDER KNOWLEDGE? In this segment ASP6 interacts with his audience and his presentation materials - not using visual media to best advantage though - did not access or use full range of expected visual media for this precedent - site plans, 3D visualisations- contextualised imagery - says in interview loses sources ISSUES HIGHLIGHTED HAVE TO DO WITH THE QUALITY OF THE RESPONSE RESEARCH WISE, AS WELL AS, LITERALLY, VISUALLY AND ANALYTICALLY. ALSO, LITERACY ISSUES TO DO WITH THE FUNCTIONAL SPECIALISMS OF EACH DRAWING TYPE WITHIN VISUAL MODE AND ACROSS OTHER MODES	 I sourced relevant visual and textual material online that ASP6 did not find/use - case study of project 7 years on		INTERACTION BETWEEN VISUAL VERBAL AND NON-VERBAL MODES Using ems as he searches for correct name ASP6 turns away from, and disengages physically from his presentation materials as he makes eye contact with both design tutors and his peers and verbally identifies and explains the original function of the existing building that was repurposed for housing. His right arm is folded across his abdomen and he holds his glasses in his left hand. His right arm is by his side	
			2.57 (38 secs)			 	ASP6 turns his head and body to reengage with his presentation materials to point out a 3D sectional view of the building. His left arm is extended and he waves and points at the sheet with his glasses in his left	

Figure 86: ASP60 Multimodal Observation Transcript

					INTERPLAY BETWEEN MODES ISSUE? ROLES – VISUAL MEDIA – TO ANALYSE/DECONSTRUCT, SHOW, DEMONSTRATE, EVIDENCE OF WHAT DESIGNERS DID – ISSUE HERE			hand as he gazes at his presentation sheet. His right arm is bent in front of his abdomen	
		SEGMENT 3 – PRECEDENT 1							
ASP60	It was all a footpath style location . So, there was limited access for cars. 04.33(04.17) CONFUSING TERMINOLOGY – PEDESTRIAN FOCUSED LAYOUT WITH CARS KEPT TO THE PERIPHERY IS THIS CORRECT UNDERSTANDING THOUGH??		4.18	 I sourced relevant 3D analytical visualisation that demonstrates what ASP6 explains verbally – that he did not find/use – APPEARS TO BE COMBINATION OF PEDESTRIAN AND VEHICULAR MEWS WITHIN DEVELOPMENT		There is an overall issue to do with researching precedents from a teaching perspective being highlighted again here – if tutors assign precedents – how detailed a reading should academic staff have carried out prior to task? If not assigned and student left to source precedents on their own what measures are in place to check veracity of findings/analysis? – IS THIS DOWN TO PROFESSIONAL JUDGEMENT/EXPERIENCE? LINK TO MULTIMODALITY LITERATURE – CH 3	ASP6 turns back to make eye contact with both design tutors and his peers – his head is tilted to the right and he uses his right arm and hand to emphasise his point. His left arm is bent in front of his abdomen	Using a range of gestural and directional movements – to signal attention – attentiveness to his work (presentation materials) outputs and also to direct attention to materials – this shows the multi-layered nature of the interaction – HOWEVER THERE IS A BIG QUESTION MARK OVER INTERPLAY BETWEEN MODES AND USING RESOURCES ANALYTICALLY – BACK TO MORE THAN GOING THROUGH THE MOTIONS – NEED TO USE RESOURCES IN A MEANINGFUL WAY – SPECIALIST KNOWLEDGE? LINK TO LITERATURE	
ASP60	So, this meant a very, very, safe environment . 04.35(04.19) And green was a huge part of the process. 04.38(04.22) DESCRIPTIVE TALK NOT ANALYTICAL – TELLING US THE WHAT BUT NOT THE WHY OR HOW		4.21	ASP6 appears to be relying on memory here as he has no textual analysis overlaid on his drawings and key types of drawings are missing – LINK TO INTERVIEW – ASP6 EXPLAINS HIS RELIANCE ON HIS MEMORY – NO SCRIPT – CANNOT READ WITH EASE		IMPORTANT ISSUE FROM TEACHING AND LEARNING PERSPECTIVE – LINK TO LITERATURE – SMALL NUMBERS OF STUDENTS ON THIS PROGRAMME - WHAT HAPPENS WITH LARGER NUMBERS WHEN STAFF MAY NOT BE FAMILIAR WITH EVERY PRECEDENT??	ASP6 continues to gaze at his presentation materials but does not interact with them physically. He uses his right arm and hand with glasses to emphasise the point he is making		
ASP60	They put in gardens at every possible location. 04.43(04.27) MANY OF ASP6'S SENTENCES ARE NOT GRAMMATICALLY CORRECT		4.27	3D sectional perspective – DETAILED SITE PLAN IN CONJUNCTION WITH SECTIONAL DRAWINGS WOULD BE MORE HELPFUL HERE	 DRAWINGS ALSO DESCRIPTIVE NOT ANALYTICAL – NO ANNOTATION/CODE		ASP6 superimposes the forefinger of his left hand onto 3D sectional view to point out the position of the gardens. His right hand is bent at the elbow and he holds his glasses in his right hand		
ASP60	The front of every house had a garden at it. 04.48(04.32)		4.33	3D sketch sectional perspective – THIS DRAWING IS NOT CONTEXTUALLY SITUATED – VISUALISATION ABOVE WOULD HAVE HELPED LOCATE/SITUATE DEVELOPMENT IN A MORE TANGIBLE WAY – PROVIDE EVIDENCE – SHOW...			ASP6 continues to gaze at his presentation materials as he moves his left hand to point at sectional perspective diagram. He continues to hold his glasses in his right hand		
ASP60	Every house is actually facing the one direction . 04.52(04.36) VISUALISATION ABOVE SHOWS/DEMONSTRATES IS EVIDENCE FOR ASP6'S STATEMENT – BUT HE DID NOT USE/FIND – LINK TO LITERATURE – INTEREST??		4.37	ASP6 explains what is happening verbally. There is no analytical text on his imagery – also needs site section to help show what is happening	 No overlaid analysis – also from my reading of the visual above units have dual aspect – all the fronts face the same direction – is this what ASP6 means?		ASP6 tilts his head to the right as he moves his forefinger to point at the front of the sectional perspective view. He continues to gaze at sheets		

Figure 87: ASP60 Multimodal Observation Transcript
















ASP60	<p>Em, I don't have a site plan of it, but all the houses were all designed and laid in a consecutive manner; so, that the front of every house was on your right-hand side if you're driving North let's say. 05.04(04.51)</p> <p>INCORRECT TERMINOLOGY</p> <p>HOWEVER, IN THIS INSTANCE, HE IS DECONSTRUCTING, THAT IS, ANALYSING VERBALLY EVEN THOUGH HE DOES NOT HAVE CORRECT VISUAL MEDIA TO BACK UP HIS STATEMENT – PROVIDE EVIDENCE</p> <p>WHAT HE IS SAYING</p>		<p>4.40</p> <p>ASP6 is pointing at something that is not relevant here – does not have a detailed site plan just a general zoning plan – uses verbal modes to describe what could/should be shown visually</p> <p>- had to make up composite image ASP6 did not send me his presentation materials as hung in the crit space - clean copy no overlaid analysis – I took as many photos on the day as time permitted so that I had a record of what was hung - not great photos – still no overlaid analysis except he uses colour – no legend</p>   <p>I sourced this photo online - ASP6 did not find/use – demonstrates fronts of every unit facing one direction</p>	  <p>Photograph source of above diagram?</p>			<p>ASP6 moves his left hand and forefinger to point at the sectional view of the development while talking about layout. His head is tilted in a downward direction as he continues to gaze at his presentation materials. He continues to hold his glasses in his right hand which is held close to his abdomen</p>	
			<p>4.43</p> <p>– no physical interaction with presentation materials here – possibly because he does not have the right visual media to explain, ANALYSE, show, demonstrate with</p>			<p>WHAT HE IS DOING</p>	<p>ASP6 uses his hands, arms and body to express spatial qualities, movement and direction. He maintains eye contact with design tutors and peers. He is turned almost completely towards audience as he uses a series of different facial expressions, head movements, arm and hand gestures</p>	<p>Cluster of nonverbal modes in play – link to Baden Ian Eunson 2015 and Multimodality literature</p>
			<p>4.48</p> <p>URNS AWAY FROM PRESENTATION SHEETS AND USES MOVEMENT AND GESTURES AS A WAY OF REPRESENTING MISSING VISUAL ARTEFACTS? – DESIGN TUTORS DO NOT PICK HIM UP ON THIS WHEREAS THEY DO WITH ASP2 – WHY?</p>					
			<p>4.51 (33 secs)</p>			<p>WHAT ASP6 IS DOING – USING NONVERBAL MODES – ROLES - is there over reliance on nonverbal – literacy and functional issue???? -link to multimodality literature</p>		
	<p>SEGMENT 4 – PRECEDENT 2</p>						<p>DST2 interrupts ASP6 and he makes eye contact with DST2. Both arms are bent and he holds his glasses in his right hand. His head is tilted to the right</p>	
DST2:	<p><so it is a model of high density?> 13.15(12.55)</p>							

Figure 88: ASP60 Multimodal Observation Transcript








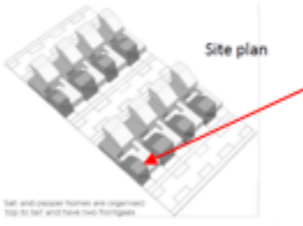

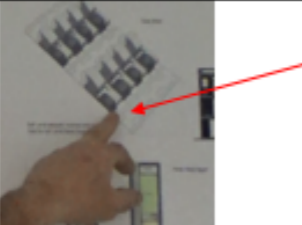
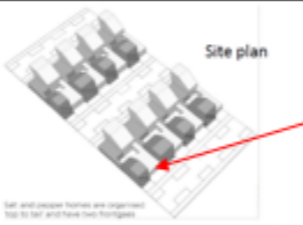





<p>The model is very-- extreme high density housing. 13.18(12.58) Em, what they have done is, they've-- they've-- as it is called (name of precedent two), so this is the front of one house, and, em, jeeesh I don't know where without the glasses (putting on glasses). 13.29(13.10)</p>		<p>12.58</p>					<p>ASP6 turns back to gaze at his presentation materials. He superimposes his right forefinger onto the site plan as he explains how precedent 2 is organised layout wise.</p>	
		<p>13.03</p>	<p>Roles and process indicated here from architectural and multimodality perspective (Demie, 2014; Bezemer and Kress, 2016; Jewitt, 2009; Kress, 2010)</p>				<p>ASP6 lifts his forefinger off the site plan and gestures towards the plans generally with his left arm extended. His head is tilted to one side and he holds his glasses in his right hand which is across his abdomen.</p>	
<p>Yeah this is the front of one house, and this is the front of the next house (referring to presentation sheets). 13.34(13.15)</p>		<p>13.06</p>	<p>ASP6 uses and physically interacts with the plans to show and support his explanation about how the spaces relate. superimposes middle finger of left hand on the plan in the top left hand (LH) corner of his presentation sheet and looks at and probably 'reads' (analytically and literally) the plan while explaining</p>				<p>ASP6 is turned towards and gazing at his site plan for precedent 2 as he superimposes his right middle finger onto the site plan. His head is tilted to the right and his right arm and hand are held in front of his abdomen.</p>	
<p>EXPLAINING AND ANALYSING (DECONSTRUCTING)</p>		<p>13.10</p>				<p>Above and below illustrates what ASP6 is DOING – USING NONVERBAL MODES TO INTERACT WITH VISUAL MEDIA AND AUDIENCE PHYSICALLY</p>		<p>DYNAMIC INTERACTION BETWEEN TALKING, VISUAL MEDIA AND PHYSICALLY INTERACTING WITH PRESENTATION MATERIALS AND AUDIENCE</p>
<p>So, next door ((to you is the next door neighbours garage. it took me an awful long time to understand how they had done it)). Em, they talked an awful lot about how they used very high performance building techniques and specifications. 13.55(13.36)</p>		<p>13.18</p>	<p>In this piece of dialogue ASP6 is explaining the difficulties he experienced trying to understand – 'read' – how the layouts are composed geometrically and physically – so he turns to face both tutors and his audience as he addresses them and then turns back as he starts to outline that they used many high-tech ideas</p>	<p>ROLES OF VISUAL MEDIA</p>			<p>ASP6 disengages with his presentation materials as he turns to face the design tutors and his peers. He makes and maintains eye contact. Both arms and hands are held loosely by his side. He is wearing his glasses.</p>	<p>Cluster of nonverbal modes in play – link to Baden Ian Eunson 2015 and Multimodality literature</p>
<p>EXPLAINING AND IDENTIFYING</p> <p>ROLES OF VERBAL MODE</p>		<p>13.22</p>		<p>WHAT HE IS RECORDING, SHOWING, REPRESENTING, DEPICTING (GIBSON, 1979) – STOREHOUSE OF KNOWLEDGE?</p>			<p>ASP6 uses hand gestures to indicate high tech ideas as he gazes at his presentation sheets and 'reads' information from the site plan. He is wearing his glasses. Both hands are held in a cupped position in front of his abdomen.</p>	

Figure 89: ASP60 Multimodal Observation Transcript







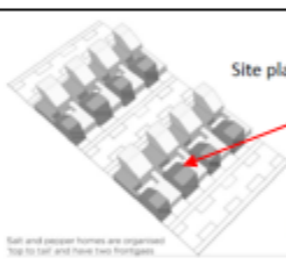









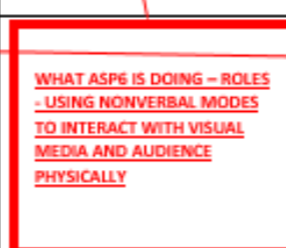
	They've used an awful lot of em, high tech ideas to reduce running cost. 14.02(13.43) They've estimated running cost was, reasonably low. 14.06(13.47) They've used em - they've maximised light source from the hmm - regardless of which direction, the house, is facing, 14.15 (13.56) because of the roof light structure. 14.18(13.59)		13.36					ASP60 stands half turned towards his presentation sheets. His head is also turned and he is gazing at the drawings. He is holding his glasses in both hands which are held in front of his abdomen	
	RELATING TERMINOLOGY TO BRIEF		13.50	points in general direction of sectional views but does not superimpose his hand or finger on the drawings to demonstrate - missed opportunity? - again no analytical annotation - audience left to 'read' drawings as he explains				ASP60 leans forward as he extends his left arm points with the middle finger of his left hand at the sectional views on his presentation sheets. He holds his glasses in his right hand	
	Trying to use architectural terminology here and above - possibly deliberately as it is an explicit and implicit academic expectation - part of the rules and conventions of this CoP - link Kamler & Thomson (2014).		13.56	Does not have any annotation on site plan so he is 'reading' the plans as he speaks about them again what happens when he is not present? - how will the drawing speak for themselves without overlaid architectural analysis symbols (arrows, colour, hatching, legend) or analytical annotation - link to literature part of demonstrating learning - not that there is always annotation!				ASP60 leans further forward and superimposes his middle finger onto the site plan. He continues to hold his glasses in his right hand across his abdomen	
	ROLES OF VERBAL MODE		13.59	Relying on one or two drawing types on presentation sheets - not using visual media to full potential - literacy issue - also over reliance on verbal and nonverbal resources possibly to compensate for missing visual elements - link to literature Bezemer and Kress 2016				ASP60 disengages with his presentation materials and turns to make eye contact with both tutors and his peers as he finishes making his point about the ways the development is designed to manipulate natural light. He holds his glasses in both hands which are lightly clasped together	
ASP60	The roof lights would be one of your major light sources. 14.20(14.03) Every house has a little internal courtyard. 14.24(14.07) IDENTIFYING AND EXPLAINING - USING ARCHITECTURAL TERMINOLOGY THE WHAT BUT NO WHY OR HOW	 ASP60's pattern of interaction - periods of looking at and interacting with presentation materials and then periods of making eye contact with and listening to both tutors	14.05 (1 min. and 50 secs)	All of the drawings are taken directly from sources - no analytical annotation or overlaid analysis of any depth. ASP60 relies on talking to explain/analyse - does not provide textual evidence - the drawings are not his own - issue around response to task - the artefacts he produces are his evidence for learning - link to literature	  			ASP60 turns back to interact with his presentation materials. He extends his left arm and superimposes his fingers onto the site plan while he speaks about light sources in the roof and the courtyard. His head is slightly tilted to the right side	There is interaction here between the modes but they are not being used to their full potential - wrong decisions about what each mode can do - issue around functional specialisms - literacy - LINK TO LITERATURE - AFFORDANCES?

Figure 90: ASP60 Multimodal Observation Transcript

Appendix 1D7: ASP70 Multimodal Observation Transcript










ASP70	Multimodal transcript	Architectural Student Participant 7 (ASP70)	OBSERVATION	VISUAL	NONVERBAL	PARALINGUISTICS	NOTES TO SELF		
	Dialogue and sounds	Videotape segment SEGMENT 1	NOTES TO SELF	Visual modes segments from presentation sheets and close up visuals relating to what the asps interacts with during the orchestrated ensemble	nonverbal communication – note -	use of volume, pitch and tone - intonation, pitch, quality of voice (Gorden, 1980) - did not focus on this to any great degree unless noted in dialogue - probably because of my deafness hard to pick up unless it was really emphatic then I noted it in the transcription			
	ASP7 presented second for 7 minutes and 2 seconds.	 <p>What ASP7 hung for the review</p> <p>Sources http://zcdarchitects.co.uk/AJ-Barratt-Home-of-the-Future</p> <p>AJ/Barratt Home of the Future - ZCD Architects</p> <p>Brighton and London Architects</p> <p>Mixture of virtual 3D imagery, plans, and 3D Diagrammatic views and text – text large scale taken directly from data sources</p> <p>ASP7 does not use a separate hand held script or set of prompts – indicates in his interview does not use this tool – link to interview</p>	 <p>Precedent 1 ASP7 sent this sheet onto me. He has added two more images at the bottom of the sheet. So, this sheet is a modified version of what he presented at his review</p> <p>One house, four houses. ZCD Architects have developed the idea of one building that can be adapted into four houses, responding to the four stages of family life, as described in the competition brief for customer groups 1, 2, 3 and 4. Each house is derived from an identical base, shown here as Type A, the home for customer group 1. The home is designed to be able to grow and adapt over the lifetime of the family according to changing need.</p> <p>Text taken directly from data sources (digital)</p> <p>ZCD Architects have developed the idea of one building that can be adapted into four houses, responding to the four stages of family life, as described in the competition brief for customer groups 1, 2, 3 and 4. Each house is derived from an identical base, shown here as Type A, the home for customer group 1. The home is designed to be able to grow and adapt over the lifetime of the family according to changing need.</p> <p>I took this piece of text and diagram directly from website The website addresses how the different house types can be organised to create communities but ASP7 does not draw on this information- why? – not seeing correctly? Not understanding? Too hurried a response? – did not go through analytical process?</p>	 <p>Precedent 2 ASP7 sent this sheet onto me. It contains different information arranged differently to the sheet he presented at his review</p> <p>New imagery and text on digital copy sent to me after the review</p>	   	<p>PROXEMICS - use of interpersonal space - how space is organised - seating arrangements, distance between presenter and peers and tutors (Gorden, 1980)</p> <p>ASP7 stands 'back', about three feet away from his presentation materials in his crit space. The two design tutors are sitting a further five to six feet away to his left and his peers are behind them. Both tutors sit on high stools. I am behind both tutors to the left with the video recorder. The audio device is to the side and behind ASP7 on a stool against the projecting board of another participants' L shaped crit space. ASP7 has hung his sheets one above the other with the sheet with most information on top – precedent 1 on the board parallel with the main studio wall and facing into the studio space. The top of the top sheet is above eye level.</p>	<p>CHRONEMICS - use of time - amount time each person gets and also relates to - pacing silence (Gorden, 1980)</p> <p>ASP7 uses sighs, or, em, pauses, truncated and repetitive words</p>	<p>KINESICS - use of bodily movements - hands, facial expression, legs (Gorden, 1980)</p>	
ASP70	Er, <sighs> another poor presentation, I am sorry about this. 22.15(audio tape) Em, this was (name of competition and entry, precedent one), I don't believe it has been built. 22.22(00.02 video tape audio) I could find very little information on it 22.26(00.06) And the same with the (name of second)		0.01	<p>ASP7 sighs as he begins to indicate he is aware he has not addressed the task correctly (again?). He has really just addressed one of the precedents and begun addressing the second. And in that process he simply cut and paste images and text directly from his sources onto two sheets. He has not added any overlaid analysis of any kind. He 'reads' from the 'cut and paste' visuals and text he has on his sheet as he is 'presenting'/talking</p>		ASP7 indicates towards the end of his presentation that he had already explained he has a serious issue with a neck injury	ASP7 stands back from his presentation materials. He holds his neck with his right hand which is bent at the elbow. His left arm is by his side and his left hand is in the pocket of his jeans as he gazes in the general direction of his presentation sheets. His body is almost perpendicular to his presentation sheets		

Figure 91: ASP70 Multimodal Observation Transcript









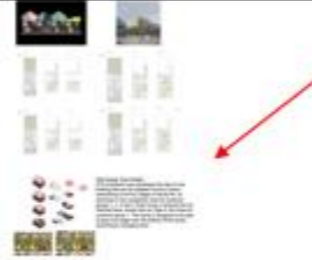

	precedent) just - 22.29(00.09)		0.05				is this a conciliatory pose?		ASP7 turns and tilts his head to gaze at both tutors out of the corner of his eyes as he explains his negative view about his task. He puts the little finger of his right hand into his mouth and continues to keep his right arm at his side with his right hand in the pocket of his jeans. His head is tilted and held against his left shoulder	
			0.07 0.09	ASP7 continues to remain disengaged physically from his presentation materials – mixture of gazing at his sheets, then turning to engage with audience and back to sheets as he speaks – is this a sign of embarrassment at his response to task?	Cluster of nonverbal modes in play as well as a cluster of multimodal resources – as orchestrated ensemble – link to Baden Ian Eunson 2015 and Multimodality literature – issue to do with level of response analytically and from a literacy perspective				ASP7 turns back to gaze at his presentation materials as he explains he could not find information on the second precedent. He points in the general direction of both sheets with the forefinger of his right hand. His left arm remains by his side and his left hand in the pocket of his jeans. ASP7 turns back and makes eye contact with DST2 as he finishes his point. His right arm is now by his side. His left arm remains in previous position with his left hand in his jeans pocket	Cluster of nonverbal modes in play – link to Baden Ian Eunson 2015 and Multimodality literature
DST1	No, they are – they are two competition designs. 22.33(00.13)		0.14	DST2 intervenes to indicate both precedents are competition entries			WHAT ASP7 IS DOING – ROLES - USING NONVERBAL MODES TO INTERACT WITH VISUAL MEDIA AND AUDIENCE PHYSICALLY – FOR WHAT PURPOSE?		ASP7 turns and tilts his head his head (and his upper torso) as he looks towards DST1 (closes his eyes momentarily) and DST2 and points back to his presentation sheets with his right arm and hand extended. He continues to hold his left arm down by his side and his left hand in his jean pockets. Up to now he has not physically engaged with his presentation materials	
ASP7D	Did this go ahead? 22.35(00.15)		0.15	refers to sheet generally – asks a the tutor a question about whether the precedent went ahead – he is expected to have addressed this himself					ASP7 leans towards his presentation sheets and touches the board with the tips of his fingers as he otherwise maintains his previous position	

Figure 92: ASP7D Multimodal Observation Transcript











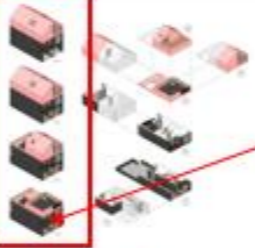



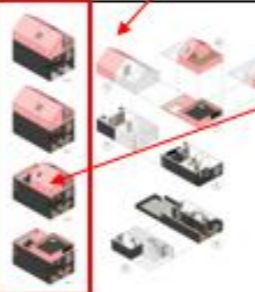

DST1	No, it hasn't, neither of them have been built. 22.37(00.17)		0.17					ASP7 continues to gaze at DST1 and maintain his previous stance as DST1 explains that neither precedent have been built	
ASP7O	Neither haven't, okay. So, I was looking for another one. 22.40(00.19) Em, for me what I got from this was, this was a design that started off, em, as a type A and would, and could, end up as a type D em-- 22.54(00.34) IDENTIFYING TYPE OF APPROACH TO DEVELOPMENT	  	0.23 0.27 0.34	Looks towards sheet generally. No longer engaging physically with his presentation sheets – maintains same pose		  		ASP7 turns back towards his presentation sheets and tilts his head to gaze at his presentation materials as he explains he looked for an alternative precedent. His right arm and hand are by his right side and he continues to hold his left arm by his side with his left hand in his jeans pocket. His body is at an angle to both his presentation sheets and his audience. His right foot is marginally in front of his left	
DST1	<What does that mean?> 22.56(00.36)								
ASP7O	Well the idea was that as the needs arose, that they'd -- they'd add on blocks. 23.04(0.44) ROLES OF VERBAL MODE		0.44	ASP7 points to 3D diagrammatic visualisations which demonstrate how the base unit can be developed into 4 different house types – taken directly from digital data source – no overlaid analysis – simply 'reads' from the images as he presents – He does not explain how the development evolves – is he leaving the image to be self-explanatory – part of his job is to 'do' the deconstructing to show he understands (evidence of learning) – this image offered a series of opportunities for ASP7 to generate a series of deductive analytical diagrams to address the above	 WHAT ASP7 SHOWS ROLES OF VISUAL MEDIA	 		ASP7 leans forward onto his right foot as he superimposes the little finger of his right hand onto the 3D diagrammatic unit at the bottom LH corner of his top presentation sheet His left hand remains in his jeans pocket	DYNAMIC INTERACTION BETWEEN VERBAL, NONVERBAL AND VISUAL MODES HERE – ISSUE WITH QUALITY?
ASP7O	Like this would be type A [referring to presentation materials], and then they would add on more each time, as the -- as the need for -- 23.14(00.54) DOES NOT EXPLAIN THE WHY OR THE HOW WHAT ASP7 SAYS		0.47	ASP7 has no script/prompts there is no overlaid analysis of any kind – His presentation is created by cutting and pasting directly from his digital data sources and arranging these materials on his sheets and then 'reading' them as he speaks – he has selected a range of different drawing types – plans, 3D diagrammatic visualisations, 3D visualisations, virtual photo images- no sections though	 WHAT ASP7 DOES	 ASP7 moves his hand along the 3D diagrams as he speaks		ASP7 moves his hand upwards to point at the second 3D diagrammatic unit. His head is tilted to the left. His left arm remains by his side and his left hand in his jeans pocket	

Figure 93: ASP7O Multimodal Observation Transcript














			0.48	Disengages from his presentation materials physically but continues to gaze at them as he speaks and 'reads' them				ASP7 disengages with his presentation materials as he stands back and gazes at the sheet. His right arm and hand are now by his side and his left arm remains by his left side with his left hand in his jeans pocket	
DST2	So, this module can evolve into four prototypes. 23.18(00.58) The -- the type A is the initial, building which has, certain characteristics -- 23.25(01.05)		0.58	Inclining head signalling attention?				ASP7 turns and tilts his head to make eye contact with DST2 as DST2 speaks. ASP7's right and left arm remain by his side and his left hand remains in his jeans pocket. His body is also turned at an angle so that his right side is turned towards his audience including DST2	
DST2			1.05	What are the folded arms a sign of? -- is it a defensive stance? -- for protection -- holds pose is that linked to lack of confidence? -- link to literature				ASP7 tilts his head back, chin resting on his left shoulder as he listens to DST2 -- adopts arms and hands folded across his abdomen -- signalling attention?	
ASP7D	<Yes.> 23.26(01.06) ASP7 DOES NOT TAKE UP THIS THREAD AND EXPLAIN CHARACTERISTICS EVEN THOUGH IT APPEARS HE DOES UNDERSTAND THE DIAGRAMS		1.06	DST2 is explaining the precedent here and ASP7 interjects but does not take up the discussion and use his presentation materials to 'present' -- is there an issue here to do with confidence around taking control of the presentation because of lack of response to task? -- need to link to literature			WHAT ASP7 IS DOING -- ROLES -- USING NONVERBAL MODES TO INTERACT WITH VISUAL MEDIA (MINIMALLY) AND AUDIENCE PHYSICALLY	ASP7 inclines his head towards DST2 and continues to gaze at him as he gives a monosyllabic interjection -- maintains folded arms pose	
DST2	-- and then you can add a floor to it or something like that -- (01.10)		1.10					ASP7 Does not change his pose as DST2 continues to speak	
ASP7D	<As ((families grow))--> 23.31(01.11) WHAT ASP7 SAYS IS MINIMAL		1.11 (1 mins and 10 secs)	Continues to hold arms folded and crossed position as he interjects and adds explanation				ASP7 continues to maintain previous pose as he again interjects and adds to DST2's comments	

Figure 94: ASP7D Multimodal Observation Transcript

		SEGMENT 2 – PRECEDENT 2								
ASP70	Em, and again this bottom one [referring to presentation materials], this was the (name of precedent two) by (name of architects). 25.25(03.05)		3.05						ASP70 turns back to his presentation sheets, looks downwards and gazes at the imagery as he indicates precedent 2 is on bottom sheet. His arms remain folded and his hands tucked in. His upper torso is turned towards his sheets but he remains at an angle to both the sheets and his audience.	
ASP70	Again, I could find very little on this em, the one -- the positives I got from this particular design was, em, I -- /ve -- I think they have used the height very well to take as much sunlight as possible. 25.47(03.27)		3.05	ASP70 starts talking negatively again explaining his difficulties with finding information -- focuses in on one detail rather than moving from ideology into strategy into how architecture is composed using architectural devices/mechanisms -- 'reads' from imagery as he speaks					ASP70 continues to maintain above pose as he begins to speak about his difficulties	
	JUST A REMINDER WHAT IS EXPECTED HERE IS MEANING MAKING COMMUNICATED AROUND DESIGNERS IDEOLOGY TRANSLATED INTO ARCHITECTURAL STRATEGY AND THEN HOW STRATEGY TRANSLOCATED INTO ARCHITECTURAL MECHANISMS -- EMBODIED IN ARCHITECTURE -- WHY, WHAT, HOW ASP7 SIMPLY 'READING' THE DRAWING PICKING UP ON RELATIONSHIP BETWEEN COMPOSITION, HEIGHT AND MANIPULATION OF LIGHT -- ONE ARCHITECTURAL MECHANISM		3.21	no overlaid deductive analysis of any kind. Minimal text -- 'reading'/interpreting as he goes Because of the limitations of his response to task as a whole -- superficial engagement here? -- Did not use expected protocol -- or tools to respond to task and construct message -- impact on meaning making here? Link to literature					ASP70 leans towards his drawings and tilts his head downwards as he superimposes the little finger of his right hand on a 3D visualisation of precedent 2 on the top right hand side of his sheet as he refers to height -- left arm by his side and left hand in his jeans pockets	DYNAMIC INTERACTION BETWEEN VERBAL, NONVERBAL AND VISUAL MODES HERE -- ISSUE WITH QUALITY? LINK TO LITERATURE
			3.23						ASP70 moves his hand to the middle 3D sectional perspective view as he talks about sunlight. His head remains tilted in a downwards direction. His left arm remains by his side with his left hand in his jeans pockets	
			3.27	DOES NOT USE HIS PRESENTATION SHEETS AND OR THE DIFFERENT VISUAL MEDIA TO FULL POTENTIAL -- DOES NOT HAVE ANY OF HIS OWN OVERLAID DEDUCTIVE ANALYSIS -- LARGE SEGMENTS OF THE PRESENTATION ASP7 IS NOT INTERACTING PHYSICALLY WITH OR USING HIS PRESENTATION MATERIALS TO SHOW, EXPLAIN, DECONSTRUCT					ASP70 continues to gaze at the drawings but disengages from them physically as he finishes speaking	

Figure 95: ASP70 Multimodal Observation Transcript























ASP70	Ahm, the design also, em, it - it was designed in a manner that you wouldn't be looking in over your neighbours and the neighbours wouldn't be looking in over you either. 26.07(03.47)		3.32		NO PHYSICAL ENGAGEMENT WITH PRESENTATION MATERIALS (32 secs)			ASP7 gazes at his sheets with his head tilted downwards as he speaks about how each unit is compartmentalised – privacy. His right arm is by his side and his right hand is bent towards his sheets. His left arm remains by his side with his left hand in his jean pockets	
	NOT USING IDENTIFYING ARCHITECTURAL TERMINOLOGY - ANOTHER ARCHITECTURAL STRATEGY – PRIVACY – DOES NOT TELL US OR SHOW US HOW THAT IS ACHIEVED OR WHY		3.38					As he speaks ASP7 uses both hands to emphasise manner privacy handled. He is staring backwards	
			3.41					As he finishes making his point ASP7 adopts a folded arms, with hands tucked in pose. He turns to gaze at both tutors and his peers. He maintains open legged pose throughout	
			3.47					Maintaining folded arms and tucked in hands pose ASP7 turns back to gaze at his presentation materials	
ASP70	Em, as I said I could find - - I couldn't find a whole lot on it. 26.17(03.57)	 	3.57 3.59 (54 secs)	ASP7's pattern of interaction – short periods of looking at and interacting with presentation materials and then long periods of making eye contact with and listening to both tutors		 	think about poses – link to literature	ASP7 holds his right ear with his left hand as he states he could not find information. His arms remain folded and his head is tilted to the right. ASP7 returns to gazing at his presentation materials as he finishes his point. He places his left hand on his chin covering his mouth. His arms remain in a folded position across his abdomen and his is still standing with his feet apart	

Figure 96: ASP70 Multimodal Observation Transcript

		SEGMENT 3 – PRECEDENT 2							
ASP7O	Well to be honest with you that's pretty much what you see there, is nearly all I could find on it. 26.32(04.12)		4.09	Remains physically disengaged from his presentation material throughout this 12 second segment			is this a true statement though because he has more evidence on sheets he sent to me subsequently? – is this to do with the limited amount of time he had to deal with task because of illness?		ASP7 tilts his head to the right and extends his left hand towards his presentation sheets as he indicates that he could not find more information
			4.12		<p>Conclusion: There is an academic expectation that each student will go through a series of steps, a protocol (physical and mental), to do with analysing or deconstructing the precedent/s they are engaging with using different multimodal communication resources to externalise and make visible visual and mental reasoning – to do with analysing ideology informing designers intentions; deconstructing how they translate/transduce this thinking into architectural strategy and then on into architecture mechanisms which are in their turn embodied in the architecture</p> <p>– this process is evident in other participants responses (using a range of multimodal resources) on their presentation sheets and also via their orchestrated ensemble in the review - discussion about this meaning making process also surfaces in their discussions with me during the interview dialogues. -it is clear that ASP7 did not go through this process possibly because of illness (although he indicates it has happened before) and so he is reduced to 'reading' the visuals and text he 'cut and paste' from data sources onto his presentation materials on the day – LINK TO LITERATURE – BEZEMER AND KRESS, 2016 CH 3 PLUS TO ARCHITECTURAL LITERATURE AROUND VISUAL REASONING</p>			ASP7 returns to gazing at his presentation materials as he finishes his point. He places his left hand on his chin covering his mouth. His arms remain in a folded position across his abdomen and his is still standing with his feet apart	
			4.13	are these gestures defensive?				ASP7 turns to gaze at both tutors out of the corner of both eyes. He places his left hand on his chin partially covering his mouth. His arms remain folded and he is still standing with his feet apart	
DST1:	Okay. So, yeah, read deeper in that situation. 25.36(04.16)								
	Well I explained to you earlier on, I just couldn't sit with the laptop anymore. I had a darting pain in my neck. 26.41(04.21)		4.18	is this pose indicating defensiveness or offensiveness?				ASP7 leans forward and tilts his head forward as he continues to make eye contact with DST1. His left arm is bent and his palm is facing towards his abdomen in a fist. He is still standing with his feet apart	
	ASP7 NOT REALLY UNDERSTANDING THAT WHAT DST1 IS HINTING AT - HE COULD HAVE USED WHAT HE FOUND TO CARRY OUT DEDUCTIVE ANALYSIS		4.21 (12 secs)	REMINDER - asp7 cut and paste no overlaid analysis - presentation materials copy sent to me and original do not match as ASP7 has added material (continued working?) - as he explains here he was experiencing problems with his neck and this affected his college work - in his interview with me ASP7 stated he does not like to sketch or write embarrassed about skill level in both - is this a bigger issue then? – LINK TO INTERVIEW/LITERATURE	is this pose indicating aggression? Link to literature:			ASP7 continues to make eye contact with both tutors. His arms are folded across his abdomen. He maintains his open legged stance and he leans back slightly	

THE REMAINDER OF ASP7S REVIEW IS MAINLY TAKEN UP WITH BOTH TUTORS EXPLAINING THE MERITS OF THE TWO PRECEDENTS

Figure 97: ASP7O Multimodal Observation Transcript

Appendix 1D8: ASP80 Multimodal Observation Transcript







ASP80	Multimodal transcript	Architectural Student Participant 8 (ASP80)		VISUAL		NONVERBAL		
	Dialogue and sounds	Videotape segment ASP8S SOURCES http://www.fta.co.uk/projects/hanham-hall http://www.architectsjournal.co.uk/home/uk/latest-eco-village-gets-go-ahead/5203071.html#article http://www.fta.co.uk/hta-answers-carbon-challenge-with-hanham-hall-eco-village/3126308.article http://www.structuretimber.co.uk/assets/inserts/2010/hta-hanham-hall-final.pdf http://www.southalos.gov.uk/documents/hanham%20hall%20fact%20sheet%20Jan%2013.pdf http://www.kelpnosp.com.co.uk/pdfs/23277.pdf http://www.blawards.org/archiv/2010/shortlisted_schemes/project.php http://consultation.southalos.gov.uk/consult/1433/usesandoptions/View?cmppoundbox7display=202780&partid=110644 SEGMENT 1- PRECEDENT 1		Visual modes segments from presentation sheets and close up visuals relating to what the asps interacts with during the orchestrated ensemble		nonverbal communication – note - PARALINGUISTICS -use of volume, pitch and tone - intonation, pitch, quality of voice (Gorden, 1980) - did not focus on this to any great degree unless noted in dialogue - probably because of my deafness hard to pick up unless it was really emphatic then I noted it in the transcription I did not focus on the use of volume, pitch or tone except in circumstances were the student raised their voice significantly or emphatically - could be that it is difficult for me to pick this up because of my deafness		
	ASP8 8 minute and 26 second presentation was the fifth of the eight	ASP8 presented one precedent on the day of the review. English is not her first language. Like ASP4 she has difficulty constructing English grammatically. However, she does attempt to recall and use architectural in her presentation. She has prepared and uses a script/notes/prompts for the review and she refers to these periodically – probably helps her with architectural terminology/gathering her thoughts. However, I am not sure she understands all the terminology she uses – low density and high density for example. In her interview with me ASP8 asked the meaning of both terms – LINK TO INTERVIEW		 Design features : Gravel car club reduces the need to own a car on site and provides two electric vehicles Understorey storage for 172 bicycles Solar water heating High standards of insulation to save heating bills Large, south facing windows provide daylight & solar warmth Water butts collect rain water for use in the garden Series of design features outlined on bottom left hand side of sheet  3D sectional perspective – inhabited and annotated	Precedent 1 – This is the only sheet that ASP8 hung for the review Mixture of visual media – visualisations, 3D sectional views with overlaid colour, plans, sections, and a coloured site plan with colour code- visualisations and sectional views, text and site plan given prominence	PROXEMICS - use of interpersonal space - how space is organised - seating arrangements, distance between presenter and peers and tutors (Gorden, 1980) ASP8 has two boards in an L-shaped configuration - she chose to hang her work on the board facing into the centre of the room. She stands to the LH Side of her work. Again, her tutors are sitting about three feet away from her and her peers and I am behind them although I have a diagonal sight line. The audio device is on a stool in the middle of the clear space between the two tutors and ASP8 with the microphone facing the student	CHRONEMICS - use of time - amount time each person gets and also relates to - pacing silence (Gorden, 1980) The tutors indicate that each student will have the same amount of time to present but this rarely happens in practice. ASP8's presentation video tape was 8.26 minutes - this is a general issue because two students' presentations over 10 mins which is the usual allotted time	KINESICS - use of bodily movements - hands, facial expression, legs (Gorden, 1980) Like her colleagues, ASP8 uses changes of facial expression, and head, arms and hand movements and gestures as she presents her findings
D512	Okay, so, I suppose present the one that - that you've worked on anyway so at least we can get a sense of - 28.12(00.28)		00.28	The presentation sheet is hung so that the top images are above eye level – this means ASP8 has to stretch to reach both images				As she commences ASP8 is turned away from both tutors and her peers as she gazes at her presentation sheet. She holds her script in both hands in front of her abdomen. She is leaning back against the L board projecting into the studio
ASP80	<Yeah!> 28.12(00.28)						ASP8 maintains her pose as she responds	

Figure 98: ASP80 Multimodal Observation Transcript

DST2	-- what evidence you were able to uncover and how might you -- you apply it 28.16(00.32)		00.32					ASP8 continues to look at her presentation sheets as DST2 asks her two questions. She continues to hold her script in both hands		
ASP80	So er, this was as well kind em -- could be bigger and smaller houses and apartments as well. 28.24(00.40) Em, I kinda took to -- to more the two bedroom house, like you can see there [referring to presentation materials]. 28.30(00.46)		00.42	Site plan taken directly from data sources				ASP8 uses pauses, em, er, and truncated words and sentences throughout her presentation -- English not first language and her English is not fluent -- is this linked to her needing time to recall architectural terminology -- a way of taking time to think? her sentences are often not correct grammatically	As ASP8 begins to respond she points the forefinger and middle finger of her left hand at her presentation sheet. She holds her script in her right hand. She gazes at the middle section of her presentation sheet at the plans and sections. She continues to lean back against the board behind her. She is in a half-turned stance	
	ROLES OF VERBAL MODE		00.46	plans and sections taken from data source directly. There is no overlaid analysis, use of colour, arrows, hatching, annotations			Above and below illustrates what ASP3 is DOING -- USING NONVERBAL MODES TO INTERACT WITH VISUAL MEDIA -- TO SHOW AND DEMONSTRATE		ASP8 superimposes her left hand onto her presentation sheet as she speaks about different types of units. She is gazing at the 3D sectional perspectives. She continues to lean against the board behind her. Her feet are close together.	DYNAMIC INTERACTION BETWEEN VERBAL, NONVERBAL AND VISUAL MODES HERE
	Em, em -- er, the -- the biggest idea was like er, for them to keep em, the bedroom: at the -- at the -- other -- er, face to the North, to get less sun and to keep more sitting rooms and the kitchen to the front where to get more -- more er, sun -- sunlight. 28.53(01.09)		00.55	Even though she has problems speaking English 'fluently' and relies on visual media from data sources with minimal overlaid analysis it is clear from her 'talking' that ASP8 is deconstructing the precedent -- (which involves visual reasoning) however this is a missed opportunity in terms of making her own analytical drawings which are the requirement -- plus what happens when she is not there? Link to literature					ASP8 moves her left hand upwards as she is referring to the spatial arrangements represented in the 3D rendered and annotated sectional perspective (colouring is her own work annotation taken from sources). She continues to hold her script in her right hand in front of her and lean against the board behind her	Cluster of nonverbal modes in play as well as a cluster of multimodal resources -- as orchestrated ensemble -- link to Baden ian Eunsou 2015 and Multimodality literature
	USING COMMON/BASIC ARCHITECTURAL TERMS FOR DIFFERENT LIVING SPACES		01.02				ROLES OF VISUAL MEDIA		ASP8 moves her left hand higher into 3D sectional perspective as she explains the relationship of placement of bedrooms and light quality. She continues to gaze upwards at her presentation sheet, hold her script in her left hand and lean against the board behind her	
	EXPLAINING AND ANALYSING (DECONSTRUCTING)									

Figure 99: ASP80 Multimodal Observation Transcript













			01.06						ASP80 turns to gaze at DST2 out of the corner of both eyes as she uses her left hand to emphasise the point she is making. She has disengaged physically from her presentation sheets. She continues to hold her script in her right hand and lean back against the board behind her. Her feet remain together.	
	Er, as well, these ones shading - they are kind of protecting from the over-heating and er, if you want to have more privacy, because this was all kind of sliding [sliding side panel to create extra storage space and play area at side of dwelling], as well. 29.05(01.21)		01.09						As ASP80 finishes her explanation she turns back to gaze at her presentation materials. Her head is tilted in an upwards direction as she looks at the 3D sectional views. Her left hand is held in an upwards fist like pose and she continues to hold her script in her right hand in front of her abdomen. She continues to lean back against the board behind her.	DYNAMIC INTERACTION BETWEEN TALKING, SHOWING, AND USING NONVERBAL MODES
	EXPLAINING AND ANALYSING (DECONSTRUCTING) WHAT HOW AND WHY		01.12	ASP80 both explains and analyses as she speaks and demonstrates using the 3D virtual visualisation of built development at the top of her sheet - however no technical section/diagram - so functional role issue					ASP80 continues to explain and analyse as she extends her left arm and superimposes her hand on the 3D visualisation of the development to show the device which she outlines serves two architectural purposes - shading and privacy. She continues to hold her script in her right hand. She has leaned forwards to stretch up to the visuals on her sheet.	Cluster of nonverbal modes in play as well as a cluster of multimodal resources - as orchestrated ensemble - link to Baden Ian Eunsou 2015 and Multimodality literature - is there an issue to do with level of response analytically and from a literacy perspective?
	ROLES OF VERBAL MODE		01.14	ASP80 has coloured in drawings taken from data sources. The annotations taken directly from data sources - what this means is she is 'reading' the drawing as she speaks but is relying on data sources analytical annotation - not expectation - expectation is she will construct her own drawings with her own interpretation of their analysis - not that she does not understand but has not produced the evidence for her understanding				Above and below illustrates what ASP3 is DOING - USING NONVERBAL MODES TO INTERACT WITH VISUAL MEDIA - TO SHOW/DEMONSTRATE	ASP80 superimposes her hand on the 3D sectional view to show how the sliding panel is assembled to create storage space while speaking. Her head is tilted upwards as she gazes at the 3D sectional drawing. She continues to lean back against the board behind her. She continues to hold here script in her right hand.	
	Er, and as well the shelter is kind of - they making the shelter for the - like, er, to - to be outside or even to the playing area for the kids. 29.16(01.32) Er, every kind of single house have em, the gardens as well for them. 29.22(01.38) Eh, they can - they do them rain - rain storage - rain storage tanks em, as well, em,		01.20	ASP80 does not refer to her script in this segment - sign of engagement and using only as a prompt - does not need to rely on the script? - for recall only?	ROLES OF VISUAL MEDIA				ASP80 turns to gaze at both tutors and her peers as she concludes her analytical explanation. Her left arm is extended and her left hand is facing towards her presentation sheet with palm facing drawings. She continues to hold her script in her right hand and lean back against the board behind her.	

Figure 100: ASP80 Multimodal Observation Transcript























<p>I'm sorry er... and the pipes is er, chip system. 29.39(01.55) <sigh></p>		<p>01.24</p>	<p>long pauses between speaking – gathering thoughts before speaking? Searching for the correct architectural terms?</p>				<p>ASP8 turns back towards her presentation materials with her head tilted upwards and extends her left arm as she superimposes the forefinger of her left hand onto the 3D sectional view. She continues to lean back against the board behind her</p>	
		<p>01.44</p>					<p>ASP8 continues to gaze at the 3D sectional views on her sheet with her left hand superimposed on the sheet pointing at the view on the left-hand side of her sheet. She continues to lean back against the board behind her</p>	
<p>These two, they have on heating system, mechanical heating and ventilation system with hot water cylinder supplies for the... from the chip system. 29.52(02.08)</p>		<p>01.45</p>	<p>is ASP8 bringing her hand up to the side of her head a defensive gesture? – link to literature. In her interview ASP8 explains she was experiencing difficulty managing the workload and also that she does not like to put up work she is not happy with – link to interview</p>	<p>ISSUES OF VISUAL MEDIA issue though – needs mix of sectional types – design and technical</p>			<p>ASP8 brings her left hand up to the side of her face as she continues to gaze at her presentation materials. She has disengaged with them physically towards the end of her explanation. She continues to lean back against the board behind her as she holds her script in her right hand</p>	<p>Cluster of nonverbal modes in play as well as a cluster of multimodal resources – as orchestrated ensemble – link to Baden Ian Eunsun 2015 and</p>
<p>As well the... they have super insulated walls and roof top of factory made timber panels. 29.58(02.14)</p> <p>ARCHITECTURAL TERMS – UNDERSTANDING?</p>		<p>01.55</p>	<p>Does the sigh here signify frustration with self? Nerves? – While ASP8 uses a range of technical architectural terms - The images she gazes at here are visualisation of the outside – services are normally explained and shown using sections and sectional details at different scales – so identifying but not explaining or deconstructing via visual media – possibly information coming directly from data sources – level of understanding?</p>	 			<p>ASP8 tilts her head upwards as she gazes at the image at the top of her sheet and starts to outline some of the services incorporated into the building. She is holding her script in her left hand and her right hand is cupped lightly to the side of the notes. She continues to lean back against the board behind her</p>	<p>Multimodality literature – is there an issue to do with level of response analytically and from a literacy perspective?</p>
		<p>02.08</p>	<p>I am not sure about the depth of her understanding or if she understands the assembly or detailing aspects of incorporating these systems into the building – she does not show us how descriptive here</p>	 <p>Descriptive notes about heating etc on this 3D sectional view – no how design section (inhabited fit out) not technical section – link to literature literacy issue – roles different visual media</p>		<p>is the leaning back a way of managing her nerves/tiredness – as she expressed she felt both during the review?</p>	<p>ASP8 continues to gaze at her sheet even although what she is speaking about is not represented fully on any of the visual media on her sheet. She continues to hold her script in both hands and lean back against the board behind her</p>	
<p>Em, then, as well, er, they tried to do more kind of green space to... to use the less em, the less cars and to... to use... the... and to... to have like... health... more, healthy lifestyle. 30.17(02.33)</p>		<p>02.14</p>	<p>Not showing the 'how' via visual media – drawings of the right type- annotated analytical diagrams and images – which would be her physical evidence of understanding – analysis is through verbal means only – not the expectation</p>				<p>ASP8 lowers her head to gaze back at the 3D sectional views. She continues to hold her script in both hands and lean back against the board behind her</p>	
<p>to... to use... the... and to... to have like... health... more, healthy lifestyle. 30.17(02.33)</p> <p>To use the bicycles and the <sighs>, to... to... to push people to walk around and everything. 30.36(02.52)</p>		<p>02.21</p>	<p>Here ASP8 refers to site plan to show there is a greater amount of green space versus vehicle space – using the right visual media here – links this point back to architectural and general strategy – healthy lifestyle – however it is not her own drawing – 'reading' data taken directly from digital source</p>				<p>ASP8 extends her left arm as she points at her presentation sheet. She appears to be gazing at the green spaces on the site plan. She holds her script in her right hand and continues to lean back against the board behind her</p>	

Figure 101: ASP80 Multimodal Observation Transcript

	ARCHITECTURAL TERMS – ANALYSING – WHAT, WHY AND HOW ROLES OF VERBAL MODE		02.22	Could have constructed a diagrammatic site section as analytical tool to complement the use of site plan to 'show' – literacy and functional specialism issue – link to literature				ASP80 is gazing at and pointing at the site plan with her left hand as she speaks about green spaces and less cars. She holds her script in her right hand. She continues to lean against the board behind her	
			02.33					ASP80 disengages physically from her presentation sheet and uses her upturned hand to emphasise her point about healthy living. She continues to hold the script in her right hand as she leans back against the board behind her	
			02.52 (2 mins 24 secs)					ASP80 tilts her head in a downwards direction and turns her body towards her presentation sheet. She gazes at the site plan as she finishes making her point. She holds the script in her right hand (along with a pencil) with her left hand touching the top of the script. She continues to lean back against the board behind her	
		SEGMENT 2 – PRECEDENT 1							
DST2	So, would this development then be, a high-density development, or a low density, or what's your view on that? 30.55(03.11) DST2 USES KEY ARCHITECTURAL TERMS TO DO WITH THE NUMBER OF UNITS AS PHYSICAL STRUCTURES CONCENTRATED WITHIN A GIVEN GEOGRAPHICAL UNIT –		03.05	AS DST2 questions ASP80 about the number of units on the site, she refers to her notes – in her interview she asked what both terms meant – issue here – does not answer the question – is it because she does not understand? – and refers to different point – low cost, picks up on the word 'low'				ASP80 looks down at her notes as DST2 begins to question her about the nature of the development. She has brought the notes closer to her and she holds them in both hands. She also has a pencil in her right hand. She is still leaning against the board behind her with her feet together	
			03.07	DENSITY (architecturally) - THE RATIO OF TOTAL OVERALL FLOOR AREA OF A DEVELOPMENT TO ITS SITE AREA (HIGH DENSITY - DEVELOPMENT OFTEN INCORPORATES MULTIPLE FLOORS TO ACCOMMODATE MORE UNITS ON SAME SITE FOOTPRINT)	Last time ASP80 makes eye contact with tutor or peers in this segment			ASP80 looks up and turns and makes eye contact with DST2 as he continues to frame his question. Her body is turned slightly towards him. She still maintains the leaning back pose	Cluster of nonverbal modes in play here
			03.11					ASP80 turns back to gaze at her presentation materials as DST2 finishes asking his question maintaining her leaning back stance. She holds her script in both hands	
ASP80	They - - they did the low cost em, low cost houses. 31.00(03.16) NOT RESPONDING TO QUESTION		03.16					ASP80 turns back to gaze downwards at her notes which she is holding in both hands. She continues to lean back against the board behind her	

Figure 102: ASP80 Multimodal Observation Transcript











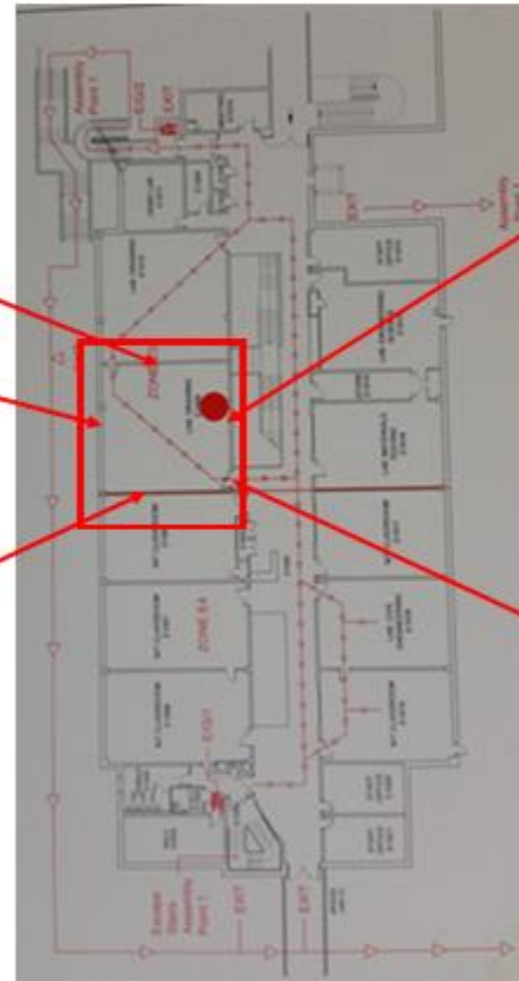
<p>They were kind of saying, low carbon houses. 31.03(03.19)</p> <p>So, it is really they try to do everything, Eco-friendly and or em - even they build em, "what's the name?", the small, "how do you call it?" the small gardens where they could em, < sound of ASP80's notes rustling> -31.27(03.43)</p> <p>DOES NOT ANSWER DST25 QUESTION HERE - DOES NOT UNDERSTAND THE MEANING OF THE TWO TERMS. IN HER INTERVIEW ASP8 ASKED ME THE MEANING OF LOW AND HIGH DENSITY - LINK TO INTERVIEW</p>		03.19		<p>Not engaging with presentation materials and not engaging with tutors or peers - looking at script, talking and gesturing</p>				<p>ASP8 continues to gaze downwards at her notes which she continues to hold in both hands. Still maintaining the leaning back pose</p>	<p>Cluster of nonverbal modes in play - link to Badenian Eunson 2015 and Multimodality literature - is there an issue to do with level of response analytically and from a literacy perspective?</p>
		03.28	<p>is her head thrown back a sign of frustration with self?</p>					<p>ASP8 throws back her head and looks upwards as she attempts to answer the question DST2 has posed. Still maintaining leaning pose and holding notes in both hands</p>	
		03.37	<p>is putting her hand to her head a sign of trying to think/process information?</p>					<p>ASP8 turns to gaze at her presentation sheet as she brings her left hand up to her head and continues to search for architectural term. She holds her notes in her right hand and continues to lean back</p>	
		03.39	<p>Goes back to notes - searching for things that might respond to question?</p>					<p>ASP8 returns to gaze in a downwards direction at her notes and uses her left hand to point at something in the notes. She continues to hold her pose</p>	
		03.43 (38 secs)	<p>Searching through notes here again is ASP8 looking for something relevant - to do with density? - or a note that will help her understand the terms so she can address the question?</p>	<p>For much of her presentation ASP8 is looking away from and not making eye contact with either design tutor or her peers. She focuses on looking at her presentation sheets and or her notes</p>				<p>ASP8 continues gazing at her notes as she turns a page with her right hand and holds the remainder of the notes in her left hand.</p>	

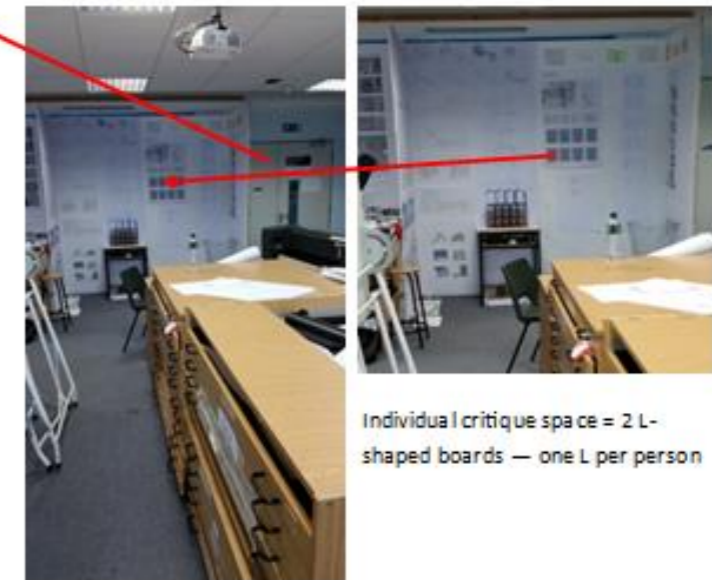
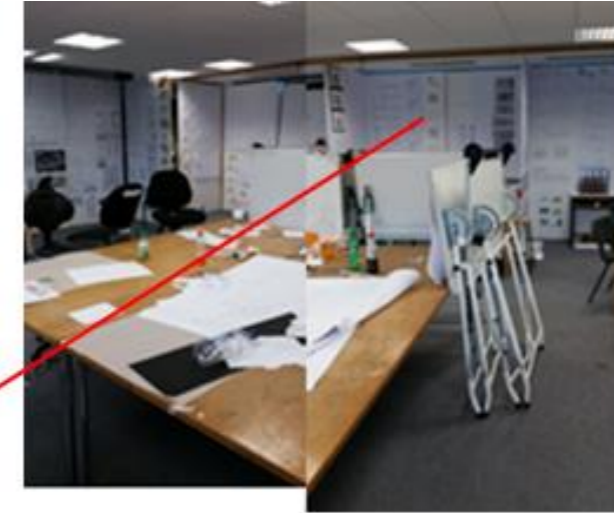
Figure 103: ASP80 Multimodal Observation Transcript

Appendix 2: Design Studio Layout

Composite photo views of the critique space from different angles



Floor plan—not to scale



Individual critique space = 2 L-shaped boards — one L per person

Design studio and review space— Layout and views

Figure 104: Design Studio Layout

Appendix 3: The Project Brief with Analysis

Houses house not only people and their belongings, they also contain memory and meaning. In such domestic theatres, lives are played out.



"Houses don't have to be one-off architectural masterpieces to have life-changing effects on their occupants" Jay Merrick

"I get very blue about all the modern architecture which is called sustainable and actually just has lots of glass. If only we would have the engineering umph to work out what sustainability really needs and then find out a new architecture out of that." Max Fordham

"... this test bed for sustainability is approached through passive design and finessed with sensitivity and obsessive attention to spatiality, light and materials. It's a manifesto with a heart." Hattie Hartman on 9 Stock Orchard Street.

"It is important for architects to get to grips with the financial side – it is not just a question of bunging in a planning application and making things look nice." Ghislaine Halpenny.

INTRODUCTION

What do architects think about when they think about houses? Do they always remember that the design of a house, or housing, is the most fundamental test of humane architectural engagement? Do they always imagine, in the greatest detail, how the domestic spaces they create might affect the physical, mental and emotional well-being of those who inhabit them? Do they think they are designing houses, or homes? And if their idea gives form to a particular form of dwelling, where does that idea begin, or end?

The house as home is central to our sense of existence, our awareness of family, place, community, possibility. The way houses are designed encourages or represses civility, emotion and creativity. The idea for a house design should not be the product of a solipsistic imagination, however brilliant. Nor can the idea arise solely from the suggestions of specific sites, or localities, or even legendary architectural precedents.

The design of a house, or housing, cannot belong only to the architect or client. The architect's idea must take shape, modestly or extraordinarily, as a deliberate and personal act of responsibility, a ramifying decency addressed to the daily home lives of people that they will probably never meet.

It is a commonly held view that the bedrock of the architectural profession is the design of projects for domestic clients. It is also a truism that the domestic sector is a nursery, or test bed, for young or emerging practices. After a cursory scan of the 2014 AJ Small Projects Awards shortlist, I approximate that the majority of projects are domestic (63 per cent), by practices of fewer than 10 employees (58 per cent), and in existence for less than eight years (58 per cent).

However, it is also true that the one-off house often represents the pinnacle of an architect's career. An obvious point of reference is Frank Lloyd Wright's Fallingwater.

INTRODUCTION

What do architects think about when they think about houses? Do they always remember that the design of a house, or housing, is the most fundamental test of humane architectural engagement? Do they always imagine, in the greatest detail, how the domestic spaces they create might affect the physical, mental and emotional well-being of those who inhabit them? Do they think they are designing houses, or homes? And if their idea gives form to a particular form of dwelling, where does that idea begin, or end?

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The design of a house, or housing, cannot belong only to the architect or client. The architect's idea must take shape, modestly or extraordinarily, as a deliberate and personal act of responsibility, a ramifying decency addressed to the daily home lives of people that they will probably never meet.

COMMENTS

Tutor/s mention **memory and meaning - life changing effects on occupants** [**designing as social action**]- being sustainable versus lip service - need deeper understanding of what it means - **sustainability** surfaces here as a **key core characteristic** - most of the participants use this terminology - not sure if they fully appreciate what the terms means either??- **fiscal matters** are raised here - ASP6 refers to costs in his review - not embedded in his presentation materials though - no annotation

CLUES

The tutors are outlining their **thinking and position about architecture** and about **housing design** here - **clues** - here for architectural student participants - what they need to think about - **humane architectural engagement** - what does that mean? - participants did not use this language in their presentation. Why? - IS IT BECAUSE THE TUTORS DO NOT DISCUSS WHAT IT MEANS IN THE BRIEF? - impact on **physical, mental and emotional well-being** - students did address this aspect in their presentations - did it surface in their researching? - Talking about **ideas (concept)** - questioning where they come from - this was not fully addressed by participants in their response to precedent study task - tutor/s mention core attributes - **sense of existence, family, place, community, possibility** - **civility, emotion, creativity** - participants addressed some but not all of these characteristics in their response to precedent task and in review - **concept (conceptual frame)** cannot be **solipsistic (selfish/self-oriented - has to be other oriented)** - nor solely be based on **site, location or seminal/famous precedents** - tutors indicating their view implicitly here that precedent study is to **inform, explain how ideas translated into architectural reality, how this type of design problem can be addressed** - **Probably also could argue implicit here that they hold the view it is not about copying or replicating what is discovered in precedent study - THIS VIEW HELD IN COMMON WITH SCHOLARS WRITING ABOUT PRECEDENT STUDY - LINK TO LITERATURE - DERNIE, 2014; CLARK AND PAUSE, 2012...**

Figure 105: Project Brief. Sheet 1

conceived in his 60s, and recognised in 1991 by a national survey of the American Institute of Architects as 'the best all-time work of American architecture'.

This indicates the potential importance of domestic architecture, which I strongly believe can transcend its typology to impart a wider, positive influence upon our attitude and approach to architecture: a relationship that is evidently reciprocal. During the recent construction boom, many of Ireland's leading practices have resited viewing the domestic market as a major source of business activity, instead seeking work in a range of construction sectors perceived as having greater scale, complexity and thus social significance than housing.

We have now seen that this 'boom' was unsustainable and many of Ireland's leading practices have re-evaluated the importance of domestic design. We can see this through a series of successful projects that are defined through the principles of good architectural practice: choreographing context and programme, specificity as well as the generic, issues of cost efficiency and innovation, modern methods of construction as well as craft, sustainability, ecology, complex planning policy, and the legal pitfalls of light and boundary ownership.

The objective of this project is to encourage innovation in house and housing design, to show how social and technological ambitions can be met by intelligent design. As designers, we must remember that the housing is not in isolation, but is one contributing typology to our landscape. As such we are under a moral obligation to adhere to sustainable values, to create buildings which have a long life and loose fit, and which are able to accommodate evolving uses for changing patterns of life and need.

To paraphrase Adolf Loos, the good house develops style and grows with its inhabitants, the style of the house being the style of the family, not the architect.

PROJECT SCOPE

Imagine you are asked to come up with a design for a new series of homes – a design for the mass market that pushes against the tried-and-tested approach of leading volume housebuilders whilst simultaneously recognizing the tight constraints of its business model.

Now imagine that you must also do this for four separate types of household and must factor in futurology by considering the demographic and technological changes that will affect this market in the next 10-20 years.

Can you design an affordable housing solution in [name of location] that would set new standards for new built developments across Ireland?

PRELIMINARY FUNCTIONAL BRIEF

Your solutions should possess the ability to respond to rapidly changing patterns of household formation and consumer taste by harnessing 'creativity and innovation'.

THE SCHEDULE OF ACCOMMODATION

Using a 6-meter module you must create four separate house types:

- Single occupancy unit
- Starter family unit
- Small family unit
- Large family unit

THE SITE

Your site is on the south side of [location of site]

The objective of this project is to encourage innovation in house and housing design, to show how social and technological ambitions can be met by intelligent design. As designers, we must remember that the housing is not in isolation, but is one contributing typology to our landscape. As such we are under a moral obligation to adhere to sustainable values, to create buildings which have a long life and loose fit, and which are able to accommodate evolving uses for changing patterns of life and need.

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THE SCHEDULE OF ACCOMMODATION

Using a 6-meter module you must create four separate house types:

- Single occupancy unit
- Starter family unit
- Small family unit
- Large family unit

COMMENTS

CLUES - Principles of good architectural practice – FRAME - choreographing - context and programme - specificity and generic issues of cost efficiency and innovation, modern methods of construction – craft, sustainability, ecology and complex planning policy – legal pitfalls of light and boundary ownership – none of these terms are explained anywhere in the brief- possibly addressed in associated modules or addressed verbally in studio when the brief was introduced

CLUES – tutors indicating **key objectives** of project – innovation as a result of intelligent design (informed) contextualised design – contributing typology in specific landscape – adhere to sustainable values - (do not identify what these values are though, and do not recommend reading around this key characteristic) – long, loose (adaptable) fit; accommodate evolving uses for changing patterns of life and need – focus on designing for occupant – about future proofing – ASP1 and ASP3 refer to these characteristics as they are embedded in data that emerged from their research process- tutors indicating that design problem requires students to generate solutions for 4 different households (4 different house types – as specified in schedule of accommodation) – that takes into account/ addresses future proofing – changing market 10-20 years – series of homes designed to be affordable and adaptable housing (tutors do not specify any of the characteristics of affordable housing and there is no identifiable connection in recommended reading list) – probably implicit expectation that students are required to develop an understanding of sustainable values and affordable housing characteristics through their research processes associated with precedent study tasks??

Figure 106: Project Brief. Sheet 2

Merrick, J., Designs for living: the house as home, **The Architects' Journal**, 30 NOVEMBER, 2015

Accessed from [<http://www.architectsjournal.co.uk/culture/designs-for-living-the-house-as-home/8692233.article>]

Zogolovitch, R. (2015) *Shouldn't we all be developers?* Artifice books, London

EDUCATIONAL PROGRAMME AND SUBMISSION REQUIREMENTS

The project will develop in three phases. At the end of each phase your scheme will be reviewed and assessed.

PHASE 1 – RESEARCH: Policy, Site Evaluation, Precedents, Conceptual Development

(Weeks 1 - 2: 29th February – 7th March)

PHASE 2 – SKETCH DESIGN: Strategies, Spatial Planning, Light and Space, Energy, Materials

(Weeks 2 -3: 7th March –14th March)

PHASE 3 – DETAIL DEVELOPMENT: 1:1 Material study, Lighting Study, 1:20 Building Fabric Study, 1:5 Working Detail, Energy Calculations, Occupant Comfort Study, Services Diagrams.

(Review day with all staff 12/13th April)

(Weeks 3 - 8: 14th March – 21st April)

PHASE 4 – FINAL PRESENTATION

(Weeks 9-10: 21st April – 5th May)

TIMETABLE

Studio 3 will operate on Mondays between 11:00-13:00, and on Thursdays between 10:00 and 13:00. You will be expected to attend both sessions every week and produce new work weekly. Attendance and personal contributions will be monitored.

Figure 108: Project Brief. Sheet 4

Appendix 4: Ethics Application Form

**University of Sheffield School of Education
RESEARCH ETHICS APPLICATION FORM**

Complete this form if you are planning to carry out research in the School of Education which will not involve the NHS but which will involve people participating in research either directly (e.g. interviews, questionnaires) and/or indirectly (e.g. people permitting access to data).

Documents to enclose with this form, where appropriate:

This form should be accompanied, where appropriate, by an Information Sheet/Covering Letter/Written Script which informs the prospective participants about the proposed research, and/or by a Consent Form.

Guidance on how to complete this form is at:

<http://www.shef.ac.uk/content/1/c6/11/43/27/Application%20Guide.pdf>

Once you have completed this research ethics application form in full, and other documents where appropriate email it to the:

Either

Ethics Administrator if you are a member of staff.

Or

Secretary for your programme/course if you are a student.

NOTE

- Staff and Post-Graduate Research (EdD/PhD) requires 3 reviewers
- Undergraduate and Taught Post Graduate requires 1 reviewer – **low risk**
- Undergraduate and Taught Post Graduate requires 2 reviewers – **high risk**

I am a member of staff and consider this research to be (according to University definitions):

low risk

high risk

I am a student and consider this research to be (according to University definitions):

low risk

high risk

X
all

*Note: For the purposes of Ethical Review the University Research Ethics Committee considers research with 'vulnerable people' to be 'high risk' (e.g. children under 18 years of age).

COVER SHEET

I confirm that in my judgment, due to the project's nature, the use of a method to inform prospective participants about the project (e.g. 'Information Sheet'/'Covering Letter'/'Pre-Written Script?':	
Is relevant	Is <u>not</u> relevant
Information sheet attached	

I confirm that in my judgment, due to the project's nature, the use of a 'Consent Form':	
Is relevant	Is <u>not</u> relevant
Consent form attached	

Is this a 'generic "en bloc" application (i.e. does it cover more than one project that is sufficiently similar)	
Yes	No
	No

I am a member of staff

I am a PhD/EdD student

I am a Master's student

I am an Undergraduate student

I am a PGCE student

The submission of this ethics application has been agreed
by my supervisor

Supervisor's signature/name and date of agreement

.....
.....

I have enclosed a signed copy of Part B

PART A

A1. *Title of Research Project: Making Architecture and Architectural Meaning: A Case Study of Interior Architecture Student Designers Designing Practices*

A2. **Applicant (normally the Principal Investigator, in the case of staff-led research projects, or the student in the case of supervised research projects):**

Title: Mrs Maeliosa M: Last Name: O'Brien
Post: EdD student Department: Education
Email: edp10mm0@sheffield.ac.uk Telephone: 353 86 1600045

A.2.1. **Is this a student project? Yes**
My Supervisor is Dr. David Hyatt.
Contact details: d.hyatt@sheffield.ac.uk

A2.2. **Other key investigators/co-applicants (within/outside University), where applicable:**
Please list all (add more rows if necessary)

Title	Full Name	Post	Responsibility in project	Organisation	Department

A3. **Proposed Project Duration:**
Start date: 2010 End date: 2015

A4. **Mark 'X' in one or more of the following boxes if your research:**

<input type="checkbox"/>	Involves children or young people aged under 18 years
<input type="checkbox"/>	Involves only identifiable personal data with no direct contact with participants
<input checked="" type="checkbox"/>	Involves only anonymised or aggregated data
<input type="checkbox"/>	Involves prisoners or others in custodial care (e.g. young offenders)
<input type="checkbox"/>	Involves adults with mental incapacity or mental illness
<input checked="" type="checkbox"/>	Has the primary aim of being educational (e.g. student research, a project necessary for a postgraduate degree or diploma, MA, PhD or EdD)

A5. **Briefly summarise the project's aims, objectives and methodology?**
The overall aim of the research project is to shed light on the phenomenon of interior architectural designing in a holistic manner by means of building a case about a group of interior architectural student designers designing experiences. I plan to investigate the designing experiences of a third-year group of full time interior architecture student designers (IASD) who are studying on a four-year BA in Interior Architecture honours programme in an Institute of Technology (IoT) in Higher Education (HE) in Ireland. I mean to construct the case study of the student's designing experiences during one of their design projects for the academic year, 2013-2014.

The general field of study is design. The particular domain is architectural design and meaning making in an architectural education context. The general issue has to do with exploring how the IASD participants make architecture and architectural

meaning. The specific focus is examining how the visual, verbal and literal language, employed by the IASD while designing, enacts design.

My main research question is:

- How does the visual, verbal and literal language deployed by the IASD while designing enact architecture and architectural meaning during the design process in design studio?

Also, I have three sub queries that relate to the main question namely:

- What are the visual, verbal and literal resources that help bring design practices and products into being?
- What are the performative characteristics of each mode individually and collectively?

And

- o What is the nature of the relationship between these three modes?

I intend to use case study as an overall approach. The research literature suggests, the more the question is underpinned by a need to find out the 'how' or 'why' of an existing situation, for example how interior architectural student designers design, the more relevant adopting case study becomes (Yin, 2009, p.4-8). Also, the literature indicates case study is employed by many researchers, because this type of investigation concentrates on what can be learned specifically about a single case while pursuing scholarly research questions (Stake, 2005, p.443). Arguably, the proposed project has intrinsic and instrumental properties because I am interested in learning about a particular group of novice designers designing activities, while simultaneously searching for understanding about how designers design generally (Stake, 2005, p.444).

I plan to draw on visual and discourse analysis modes to appraise the data generated during the research process. The research literature suggests uncovering what people are trying to 'do' through the artefacts they make, as well as, appraising the talk and text that underpins particular social practices lies at the heart of visual and discourse analysis modes (van Leeuwen and Jewitt, 2001; Denscombe, 2010; Gill, 2002).

- A6. What is the potential for physical and/or psychological harm / distress to participants?**
There are no physical or psychological issues. The intended participants are over eighteen and the research will take place in their normal educational setting. The process of gathering data associated with the study that is, observing and interviewing the participants, is closely aligned to the teaching approaches that underpin the students' daily routine in design studio as well as the more formal review process that takes place at the end of every project.
- A7. Does your research raise any issues of personal safety for you or other researchers involved in the project and, if yes, explain how these issues will be managed?**
No. The proposed study will take place in the interior architectural student designers' natural setting in the design studio module of their programme during the academic year 2013 - 2014
- A8. How will the potential participants in the project be (i) identified, (ii) approached and (iii) recruited?**

(i) I am proposing to ask the third year group of students on a four year BA in Interior Architecture (Honours) in an Institute of Technology in Ireland to participate. I have discussed the nature of the research with the programme team and the intended participants design studio tutors and they have agreed to let me carry out the study with those students who consent to participate. This will involve me: observing and recording what happens at the scheduled design reviews between students and staff during the project under investigation; as well as carrying out semi structured interviews and focus group discussion with the participants outside class at a mutually agreed time.

Also, I have informed the Head of School and relevant Head of Department about the intended project and I will be confirming their agreement in writing once I have received ethical clearance for the project. I am not required to go through any formal ethical process at the site of the intended research.

(ii) I will organise a meeting with the participant group outside normal contact time to explain the purposes of the research and ask them to participate in the project. I have prepared an information sheet to explain the nature of the proposed research project and the level of commitment required to be a participant. Also, I have prepared a consent form and I will build in time during my introductions to the research to allow the prospective participants ask questions or raise any issues they might have about the research generally and participating particularly.

(iii) The third-year class group will be asked to submit completed consent forms at a mutually agreed time and place at the initial meeting to discuss the nature of the project.

A9. Will informed consent be obtained from the participants?

Yes

No

X

If informed consent is not to be obtained please explain why. Further guidance

<http://www.shef.ac.uk/ris/other/gov-ethics/researchethics/policy-notes/consent>

Only under exceptional circumstances are studies without informed consent permitted. Students should consult their tutors.

A.9.1 How do you plan to obtain informed consent? (i.e. the proposed process?):

I intend to arrange a meeting with the third year group outside class time and invite them to attend. At that meeting I will distribute the information sheet and consent form. I will go through the information sheet to explain the purpose of the intended project, how it is going to be conducted, how the data will be generated and managed and outline what is contained in the consent form. Then I will invite questions from the group and address questions and any issues as they arise. At the end of the process I will agree when and how the prospective participants can submit completed consent forms to me.

I intend to prepare an introduction for the observation process and each interview and focus group session to explain the purpose of each event and reiterate how the data will be handled from an identity and confidential perspective to reassure the participants.

I have attached a draft consent form and information sheet with this application

A.10 How will you ensure appropriate protection and well-being of participants?

I plan to protect the participating institution and each individual's identity in line with Stake (2005) and Denscombe's (2010) comments about the requirement for anonymity for participants in all aspects of the project. Likewise, some of the material generated through these actions may be of a confidential nature. The research literature establishes ethical guidelines indicate no one should suffer as a result of their use, and the material has to be anonymised to protect the identities of those involved (Denscombe, 2010).

As I will be the person generating transcripts from the interview and focus group sessions I propose to check with the participants the transcript corresponding with their interview is an accurate reflection of the commentary. I will give each participant a copy of their completed transcript so that they have a chance to verify or correct what I have recorded as their commentary during their interview.

I will arrange a preliminary meeting with the proposed participants outside class time to explain the nature of the research and what it means to participate. I intend to emphasise the voluntary nature of their involvement and stress they are free to withdraw from the process at any time during the research process without any negative consequences. Additionally, I will make it clear each participant is free to decline to answer any particular question or questions during the interview and focus group process.

A.11 What measures will be put in place to ensure confidentiality of personal data, where appropriate?

I will not be identifying the institution, location or subjects associated with the research project. I will be simply stating the research project will be conducted with a group of interior architectural student designers who are studying in an Institute of Technology in the Higher Education Sector in Ireland.

I intend to carry out the reporting of the data in a way that those participating cannot be identified or presented in an identifiable form. I have made it clear in the information sheet and consent form the participants responses will be kept confidential; their name will not be linked with the research materials in any way; and they will not be identified or identifiable in the report or literature resulting from the research.

I will keep the research materials on an external hard drive which will be stored securely at all times in a locked cabinet during the research phase. Once the research and thesis is completed I will continue to keep the materials in a secure place so that I can use the findings in further writing to disseminate the findings more widely. This is set out in the attached information sheet which each potential participant will receive at the initial meeting

A.12 Will financial / in kind payments (other than reasonable expenses and compensation for time) be offered to participants? (Indicate how much and on what basis this has been decided.)

Yes

No

I will be observing the participants during one of their projects and the interview and focus group sessions will take place during their working week in college outside of class time

Arguably, the main benefit associated with being involved in the research has to do with each participant being given the chance to articulate their designing experiences in the interview process in response to a set of carefully designed questions, intended to explore what emerges during the observation process and uncover how they go about making design decisions. Another benefit has to do with being able to discuss the emerging themes and issues from the observation and interview process later on in the focus group sessions. Arguably, these activities will provide the participants with an opportunity to reflect on and deepen their understanding of how they and their colleagues go about designing and making architectural meaning. Probably, this will be of benefit to them as they move on into the final year of their studies where they will address their thesis project during a process that requires them to demonstrate they are synthesising and transforming learning from the whole programme.

A.13 Will the research involve the production of recorded or photographic media such as audio and/or video recordings or photographs?

Yes

No

A.13.1 This question is only applicable if you are planning to produce recorded or visual media: How will you ensure that there is a clear agreement with participants as to how these recorded media or photographs may be stored, used and (if appropriate) destroyed?

I intend to explain how the data will be used during the introduction to the research and I have set out an explanation in the information sheet. Also, I have included this point in the consent form

I propose to generate data through the observation, interview and focus group sessions. I plan to take photographs to generate records of the design diaries, diagrams, sketches, models and drawings the participants make and use during the designing activity to progress, support and articulate their design decision making. I intend to generate transcripts from the observation, interview and focus group sessions. I propose to show these and the visual records to the participant concerned to check their accuracy and then use them in a way that protects the confidentiality and identity of each participant. I will store the data on an external hard drive which will be kept in a secure location at all times. The audio recordings will be uploaded onto a computer file which will be kept in a secure location also.

PART B - THE SIGNED DECLARATION

I confirm my responsibility to deliver the research project in accordance with the University of Sheffield's policies and procedures, which include the University's 'Financial Regulations', 'Good research Practice Standards' and the 'Ethics Policy for Research Involving Human Participants, Data and Tissue' (Ethics Policy) and, where externally funded, with the terms and conditions of the research funder.

In signing this research ethics application I am confirming that:

1. The above-named project will abide by the University's Ethics Policy for Research Involving Human Participants, Data and Tissue': <http://www.shef.ac.uk/ris/other/gov-ethics/researchethics/index.html>
2. The above-named project will abide by the University's 'Good Research Practice Standards': <http://www.shef.ac.uk/ris/other/gov-ethics/researchethics/general-principles/homepage.html>
3. The research ethics application form for the above-named project is accurate to the best of my knowledge and belief.
4. There is no potential material interest that may, or may appear to, impair the independence and objectivity of researchers conducting this project.
5. Subject to the research being approved, I undertake to adhere to the project protocol without unagreed deviation and to comply with any conditions set out in the letter from the University ethics reviewers notifying me of this.
6. I undertake to inform the ethics reviewers of significant changes to the protocol (by contacting my supervisor or the Ethics Administrator as appropriate
7. I am aware of my responsibility to be up to date and comply with the requirements of the law and relevant guidelines relating to security and confidentiality of personal data, including the need to register when necessary with the appropriate Data Protection Officer (within the University the Data Protection Officer is based in CICS).
8. I understand that the project, including research records and data, may be subject to inspection for audit purposes, if required in future.
9. I understand that personal data about me as a researcher in this form will be held by those involved in the ethics review procedure (e.g. the Ethics Administrator and/or ethics reviewers/supervisors) and that this will be managed according to Data Protection Act principles.
10. If this is an application for a 'generic'/'en block' project all the individual projects that fit under the generic project are compatible with this application.
11. I will inform the Chair of Ethics Review Panel if prospective participants make a complaint about the above-named project.

Signature of student (student application): *Maeliosa O'Brien*

Signature of staff (staff application):

Date: 9th June 2013

Email the completed application form to the course/programme secretary

For staff projects contact the Ethics Secretary, Colleen Woodward
Email: c.woodward@sheffield.ac.uk for details of how to submit

Appendix 5: Ethics Approval



**The
School
Of
Education.**

Maeliosa O'BRIEN
EDUR17 - Edd/Higher Education

Head of School
Professor Cathy Nutbrown

School of Education
333 Glossop Road
Sheffield
S10 2JA

26 June 2013

Telephone: +44 (0)114 222 28096
Email: edd@sheffield.ac.uk

Dear Maeliosa

ETHICAL APPROVAL LETTER

Making Architecture and Architectural Meaning: A Case Study of Interior Architecture Student Designing Practices

Thank you for submitting your ethics application. I am writing to confirm that your application has now been approved, and you can proceed with your research.

This letter is evidence that your application has been approved and should be included as an Appendix in your final submission.

Good luck with your research.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Dan Goodley'.

Professor Dan Goodley
Chair of the School of Education Ethics Review Panel

cc David Hyatt

Appendix 6: Consent Form-Focus Group Participant

RESEARCH ETHICS: CONSENT FORM

A Case Study Investigating Architectural Student Designers Meaning-Making Using Multimodal Communication Resources

Name, position and contact address of Researcher: Maeliosa O'Brien. MA., BSc. Arch., Dip. Arch., F.R.I.A.I. I am an Educational Doctorate Student at the University of Sheffield, UK. Telephone Number: 353 (0)86 1600045. Email address edp10mmo@sheffield.ac.uk

I confirm I am complying with the research ethics policy of the University of Sheffield which can be located at <http://www.shef.ac.uk/ris/other/gov-ethics/> which conforms with the British Educational Research Association Guidelines [<http://www.bera.ac.uk/files/guidelines/ethica1.pdf>]

Please Initial Box

- | | |
|---|--------------------------|
| 1. I confirm that I have read and understand the information sheet for the above study and I have had the opportunity to ask questions | <input type="checkbox"/> |
| 2. I understand that my participation in this research project is voluntary and that I am free to withdraw at any time, without giving any reason and without there being any negative consequences. Additionally, I am free to decline to answer any particular question or questions. | <input type="checkbox"/> |
| 3. I understand that my responses will be kept confidential. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the report or reports that result from the research. | <input type="checkbox"/> |
| 4. I agree to the focus group consultation process being audio recorded | <input type="checkbox"/> |
| 5. I agree to the use of anonymised quotes from the focus group transcripts, in current and future publications | <input type="checkbox"/> |
| 6. I agree for the data collected from me to be used in future research | <input type="checkbox"/> |
| 7. I agree to take part as a participant in the above study | <input type="checkbox"/> |

Name of Participant

Date

Signature

Maeliosa O'Brien

Name of Researcher

Date

Signature

Appendix 7: Consent Form-Architectural Student Participant

RESEARCH ETHICS: CONSENT FORM

A Case Study Investigating Architectural Student Designers Meaning-Making Using Multimodal Communication Resources

Name, position and contact address of Researcher: Maeliosa O'Brien. MA., BSc. Arch., Dip. Arch., F.R.I.A.I. I am an Educational Doctorate Student at the University of Sheffield, UK. Telephone Number: 353 (0)86 1600045. Email address edp10mmo@sheffield.ac.uk

I confirm I am complying with the research ethics policy of the University of Sheffield which can be located at <http://www.shef.ac.uk/ris/other/gov-ethics/> which conforms with the British Educational Research Association Guidelines [<http://www.bera.ac.uk/files/guidelines/ethica1.pdf>]

Please Initial Box

1. I confirm that I have read and understand the information sheet for the above study and I have had the opportunity to ask questions
2. I understand that my participation in this research project is voluntary and that I am free to withdraw at any time, without giving any reason and without there being any negative consequences. Additionally, I am free to decline to answer any particular question or questions.
3. I understand that my responses will be kept confidential. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the report or reports that result from the research.
4. I agree to the interview process being audio recorded and the observation process being video and audio recorded
5. I agree to the artefacts I make during the precedent study process, including diagrams, sketches, models and drawings, being photographed and used as data for the purposes of this research
6. I agree to the use of anonymised quotes and abstracted visual stills, from the questionnaire, observation, and interview multimodal transcripts, in current and future publications
7. I agree to the use of anonymised visuals of diagrams, sketches, models and drawings, made and deployed by me to support my response to the precedent study task for the design project that is under review for the research study, in current and future publications
8. I agree for the data collected from me to be used in future research
9. I agree to take part as a participant in the above study

_____	_____	_____
_____	_____	_____
Name of Participant	Date	Signature
Maeliosa O'Brien		
_____	_____	_____
Name of Researcher	Date	Signature

Appendix 8: Consent Form-Design Tutor

RESEARCH ETHICS: CONSENT FORM

A Case Study Investigating Architectural Student Designers Meaning-Making Using Multimodal Communication Resources

Name, position and contact address of Researcher: Maeliosa O'Brien. MA., BSc. Arch., Dip. Arch., F.R.I.A.I. I am an Educational Doctorate Student at the University of Sheffield, UK. Telephone Number: 353 (0)86 1600045. Email address edp10mmo@sheffield.ac.uk

I confirm I am complying with the research ethics policy of the University of Sheffield which can be located at <http://www.shef.ac.uk/ris/other/gov-ethics/> which conforms with the British Educational Research Association Guidelines [<http://www.bera.ac.uk/files/guidelines/ethica1.pdf>]

Please Initial Box

1. I confirm that I have read and understand the information sheet for the above study and I have had the opportunity to ask questions
2. I understand that my participation in this research project is voluntary and that I am free to withdraw at any time, without giving any reason and without there being any negative consequences. Additionally, I am free to decline to answer any particular question or questions.
3. I understand that my responses will be kept confidential. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the report or reports that result from the research.
4. I agree to the interview process being audio recorded and the observation process being video and audio recorded
5. I agree to the use of anonymised quotes and abstracted visual stills, from the questionnaire, observation, and interview multimodal transcripts, in current and future publications
6. I agree for the data collected from me to be used in future research
7. I agree to take part as a participant in the above study

Name of Participant

Date

Signature

Maeliosa O'Brien

Name of Researcher

Date

Signature

Appendix 9: Information Sheet

Project Title: A Case Study: Investigating Architectural Student Designers Meaning-Making Using Multimodal Communication Resources

Introduction

I am a registered architect and a fellow of the Royal Institute of Architects of Ireland. I have been an architectural/design educator for over twenty-five years and I am working as an educator in this institution for over seventeen years. Currently, I am studying for my doctorate at the University of Sheffield. This study will provide the basis for my thesis for this programme of study.

As an architect, architectural educator, and researcher I have a constructivist view of learning, teaching and research. That is to say I believe new learning is built on the back of our previous experiences, and this underpins my view of the world. Also, I subscribe to an interpretivist perspective, as I imagine individuals construct their own identities. I concur with the concept learning is rooted in experience; and individuals need to be thoughtful and purposeful about their actions before considering and deciding on future practices.

What I propose to do in the research project

In this research undertaking I intend to construct a case study, using a qualitative approach, around the ways you make architectural meaning using multimodal (Kress, 2010) communication resources (these different modes include talk, text, gaze and gesture, movement, sketch, diagram, drawing, and model) during the review for the initial precedent study task during your third (and final) design project for the current academic year, 2015-2016. I am focusing on your architectural meaning-making during the review event for the initial precedent assignment in this project; although I appreciate your precedent studies permeate the whole designing process in each of your projects.

Qualitative case study is a research approach that helps the researcher to explore a phenomenon, your meaning-making experiences in this case, in its own context using several data sources. Carrying out research in this way is done to explore the issue from a number of angles. This allows many facets of the event to be uncovered and understood (Baxter and Jack, 2008).

I am asking two main research questions about your architectural meaning-making to do with:

- Firstly, if, and secondly, how, the multimodal communication resources (talk, text, gaze and gesture, movement, sketch, diagram, drawing, and model) you choose, design (as you respond to the precedent study task) and produce work together to enact architectural meaning during the precedent study review process associated with the initial precedent study task?

I have several sub queries that relate to the main inquiries and form the guiding framework (Tomlinson, 1989) for the research activities events namely:

- What is the nature of the relationship between the different multimodal communication modes?
- What are the performative mechanisms or characteristics of the multimodal communication resources you utilise during the precedent study review event?
- What are the effects of the multimodal ensembles in use on the emerging design output from a performative aspect?
- How are you using these communicative resources to make rhetorical (symbolic) architectural meaning?

I propose to observe you during your initial precedent study review process, then self-administer a questionnaire to you that contains questions about your background, along with queries about your architectural and personal values, and lastly interview you about your meaning-making during the review event using a semi-structured approach (a script to guide the questioning process) to the interviewing process to generate data about your architectural meaning-making efforts during the initial precedent study review process in design studio in order to address my research questions. During the observation event, I expect to: firstly, observe how you construct architectural meaning, using a collection of multimodal resources in what is called an orchestrated ensemble (Kress, 2010), what your tutors and I commonly refer to as your presentation materials, as your orchestration unfolds during the review process and as you respond to your tutors' and peers' responses. Then, I will administer the questionnaire, which I already indicated is meant to gather some factual general background information about you; as well as your views on: yourself as a learner; the values you hold dear personally; your architectural values; the ways both sets of values may be affecting your architectural studies; and lastly how you think your views and values affected the ways you went about preparing for the precedent study review. The interviewing process is intended to generate data through the process of our discussions about your meaning-making experiences during that specific precedent review situation. Part of the evaluative process overall will involve me appraising the visual and physical representation and communicative artefacts you produce and use during the initial precedent study task to make, and communicate, architectural meaning during the initial precedent study review event, the focus of attention for the research; so, you will need to bring these along to your interview with me.

Your involvement

I plan to protect this institution and each individual's identity in line with Stake (2005) and Denscombe's (2010) comments about the requirement for anonymity for participants in all aspects of a research project. Likewise, I appreciate some of the material generated through these actions may be of a confidential nature. I intend to use all the data materials in a way that makes the data anonymous and confidential (Denscombe, 2010).

Your active involvement in the process will consist of: firstly, being observed during your initial precedent study review for project three which takes place towards the beginning of the six to eight week design process that commences at the end of February 2016; secondly, completing the questionnaire which will be administered by me after the observational process; thirdly, being interviewed individually about your architectural meaning-making experiences during that precedent study review event for about an hour once the questionnaire has been administered; and lastly spending about thirty minutes reviewing the transcripts for the observation, questionnaire, and interviewing processes to ensure you are happy they constitute an accurate reflection of what occurred and the comments you made.

Benefits and issues

The main benefit of being involved in the research has to do with being given the opportunity to articulate your meaning-making experiences in the interview process in response to a set of carefully designed questions, intended to make your multimodal meaning-making processes clear. Arguably, these activities will provide an opportunity to reflect on and deepen your understanding of how you and your peers' go about making architectural meaning and how this process could be actively affecting your emerging design ideas and outputs. What helps? What blocks you? Probably, this could be of benefit to you as you move on into the final year of your studies. Issues associated with participating in the project have to do with the amount of time you will expend while contributing to the study and any negative feelings you might have about how being involved, or not, could affect your overall performance in design studio. Hopefully, understanding the nature of the project and how I intend to go about the study and use the findings, as outlined in this information sheet will address these feelings.

Rationale for the project

It is my intention to explore your meaning-making in your natural habitat for a specific event. That is, while you are presenting your initial precedent study findings during the review event for that task. I carried out a preliminary review of the research literature during my studies and I discovered there are few empirical studies about the ways architectural student designers construct architectural meaning from a social semiotic (semiotics has to do with the study of meaning-making) multimodal communication theory perspective, particularly in an Irish context.

Although this project will replicate features of other projects about how designers construct meaning, I am dealing with you as a specific sub population of design students. Nonetheless, it is possible I will be able to use the findings from this study to draw some particular and general conclusions about how designers construct meaning using multimodal communication resources across the design spectrum.

How I propose to analyse and evaluate the data

I intend to draw on multimodal (visual and discourse) analysis approaches to appraise the data generated during the research. The research literature suggests uncovering what people are trying to 'do' with the artefacts they make, as well as, the talk, gesture, movement and literal texts that underpins particular social practices lies at the heart of visual and discourse analysis mode (Leeuwen and Jewitt, 2001; Denscombe, 2010, p.287-288; Gill, 2002). Arguably then, investigating how the multimodal language you deploy, physical, visual, verbal, non-verbal and written, affects your designing output performatively will be facilitated using multimodal analysis modes.

How I propose to manage the data

To that end, I propose to generate and gather data from you through the observation, questionnaire, and interview sessions. I plan to use video and audio devices to capture what happens during the observation and interviewing events, and take photographs to generate records of the diagrams, sketches, models and drawings you make and use for the precedent study review to support and articulate your design decision making. I intend to generate transcripts from the completed questionnaires, video and audio recordings for the observation process, and audio recordings for the interview sessions. All of these material elements constitute the data and will be subjected to the multimodal analysis process. I propose to show these and the visual records to you to check their accuracy and then use them in a way that protects the confidentiality and identity of each participant. I will store the data on an external hard drive which will be kept in a secure and locked location at all times. The video and audio recordings will be uploaded onto a computer file which will be kept in a secure location also and the recording will then be deleted from the video and audio devices.

I look forward to working with you should you agree to participate.

Appendix 10: Questionnaire

Questionnaire

Introduction

Good morning/afternoon and welcome to this session to complete the questionnaire

This questionnaire is the second of the three activities you have kindly consented to take part in as participants. Examining how you are constructing architectural meaning, during the initial precedent study task review, using multimodal communication resources; and investigating the roles and relationships of the different modes you utilise during the review event including: your architectural representation materials – presentation boards and models, talk, text, gaze, posture and movement, is the focus of my research project which is part of my educational doctoral studies at the University of Sheffield.

I view these research activities, the questionnaire, observation and interview processes as opportunities for us to explore your meaning-making together constructively and collaboratively. Your responses to this questionnaire will inform and shape the interview process to follow. Oxman (1999, p.110), an architectural researcher, argues in his writing that architectural learners develop their abilities to think in a designerly fashion through the process of constructing their representations of their design thinking. Filling out this questionnaire is the second of three events that will provide you with opportunities to think about, discuss, and reflect on your architectural meaning-making work during a review for a precedent study task. Hopefully, taking part in these research activities, including completing this questionnaire, will help you deepen your understanding of your meaning-making processes and influence your future architectural meaning-making positively.

The link between your name and the information you provide will be removed to protect your identity before any part of this data is included in my research documents. That is to say, your comments will be reported only in anonymous form that does not disclose the identity of the respondent. The completed questionnaires will be kept in a secure and locked filing cabinet.

Your participation is voluntary and you may refuse to answer any question or discontinue participation at any point without any negative consequence. There is no personal risk to you in responding to this questionnaire since your identity will be known only to me. If you have any questions related to the study or this questionnaire, please send me an email to obrien.maeliosa@itsligo.ie

Name:

PART A: Background Information

The questions in this section are intended to gather some general factual based background information about you.

A1. In what year were you born?

Year of Birth:

A2. What is your nationality?

Nationality:

A3. Notes

Please provide any additional factual information about your background you think may have a bearing on your approach to your architectural studies in this box:

Part B: Values and Beliefs

The questions in this section are intended to collect your views on your perceptions of yourself as a learner, your views on the review event, as well as, your values and beliefs about life generally and architecture particularly.

B1. Describe yourself as a **learner** in as much detail as possible

Please write your comments in this box:

B2: Tell me about the **values** that are most important to you in your **life** generally
(for example, how people should behave towards one another)

Please write your response in this box:

B3: Tell me about the **architectural values** that underpin your architectural work
(for example, what kind of designer are you?)

Please write your comments in this box

B4: Describe the ways you think **both sets of values (life and architectural)** inform and influence how you go about your studies as an architectural student

Please write your response in this box

- B5: Outline in as much detail as you can how you prepare for the **review process** in design studio (e.g. the decision making around, and construction of, your representation materials including 2D and 3D artefacts)

Please write your response in this box

B6: Tell me about your **review process experiences** during your time here as an architectural student (e.g. the things you enjoy, the positives, the negatives, the impact of the feedback from your peers and tutors on your understanding)

Please write your comments in this box

B6: Additional Comments

Please add any additional comments in this box

Thanks again for your time.

Appendix 11: Semi-Structured Interview Script

The Interview Guide

Architectural Student Participant Presenter..... Date
..... Time

- Good morning. Thank you for coming along today with your work to talk to me about your initial precedent study and the review process for that task.

-Just to remind you:

- I am exploring how you construct architectural meaning using different communicational modes and the roles and relationships between these modes - such as talk, text, image, diagram, drawing, model; and gaze, posture and bodily movement because this is the focus of my research study

-Your participation in every aspect of the research is voluntary and you are free to withdraw at any stage without any negative consequences. Are you happy to proceed with the interview?

Introduction to the interview process

-During the interview, I am going to ask you a number of questions in four areas related to your precedent study task by way of initiating our discussions about these topics.

-These matters have to do with: firstly, the ideas underpinning the designers' work you explored and how you engaged with this thinking; secondly, the ways you went about analysing/deconstructing the precedents you explored; thirdly, how you went about preparing your response to the task (representing what you found out) and the presentation materials for the review process; and finally, questions about the review process itself to do with the ways you displayed and positioned your presentation materials, presented your work to your colleagues and tutors and handled their questions and feedback.

-As I indicated in our initial meetings to discuss the research I am recording the interview to ensure I have an accurate account of our discussions. I will make notes during the interview, mainly to capture the main points you make about each of the areas we address so that I can share these with you.

-The interview process will take about an hour, so that gives us about 15 minutes for each of the four topics. Towards the end of our talk in each section I will give you a brief summary of the main points, give you time to raise any queries or add to/refine my summary before moving on to the next topic. At the end of the interview I will give you time to raise any questions you might have before concluding our discussion with details about what happens next and turning off the tape recorder.

-During the interview, I may ask you some probing questions, ask you for more detail, clarify what you say by way of checking I understand what you mean, and look for you to give me concrete examples (using your presentations materials as evidence/examples) about what you address to gather as much detail about your meaning-making experiences during the task and review process as I can.

-Have you any questions before we begin?

The Interview

Topic 1: Design Ideas/thinking (Discourse)

Q1: Please outline the key ideas you identified in the precedents you analysed/deconstructed during the precedent study task

Prompts for self

Probe.... Could you say something more about...Can you give me a more detailed description of that...Do you have further examples of this?

Clarification.... What did you actually do? When you saydo you mean...? When you mention.... are you thinking of....?

Feedback/Active listening...

Summary....

Q2: Describe in as much detail as possible how the designers' ideas were realised in the architectural work you investigated...forms, spaces, lighting and colours, materials and detailing.... What architectural devices were used?

Probe.... Could you say something more about...Can you give me a more detailed description of that...Do you have further examples of this?

Clarification.... What did you actually do? When you saydo you mean...? When you mention.... are you thinking of....?

Feedback/Active listening...

Summary....

Q3: Tell me about the ways the designers' architectural work was represented in the text, images and drawings you engaged with during your research into these precedents

Probe.... Could you say something more about...Can you give me a more detailed description of that...Do you have further examples of this?

Clarification.... What did you actually do? When you saydo you mean...? When you mention.... are you thinking of....?

Feedback/Active listening...

Summary....

Notes:

Moving on to next topic.....

Topic 2: Analysing/Deconstructing the Precedents (Design)

- Q1:** Describe in as much detail as possible how you went about the precedent study task
Probe.... Could you say something more about...Can you give me a more detailed description of that...Do you have further examples of this?
Clarification.... What did you actually do? When you saydo you mean...? When you mention.... are you thinking of....?
Feedback/Active listening...
Summary....
- Q2:** Tell me about what really grabbed your attention about each designer's work as you went through the analysis process
Probe.... Could you say something more about...Can you give me a more detailed description of that...Do you have further examples of this?
Clarification.... What did you actually do? When you saydo you mean...? When you mention.... are you thinking of....?
Feedback/Active listening...
Summary....
- Q3:** Outline the ways you recorded what you found out during the precedent study task and show me some examples from your work
Probe.... Could you say something more about...Can you give me a more detailed description of that...Do you have further examples of this?
Clarification.... What did you actually do? When you saydo you mean...? When you mention.... are you thinking of....?
Feedback/Active listening...
Summary....

Notes:

Moving on to next topic.....

Topic 3: Designing and preparing your presentation materials (Production)

- Q1:** Describe in as much detail as possible how you went about choosing communication modes/materials to represent what you discovered during the precedent study task
- Probe....** Could you say something more about...Can you give me a more detailed description of that...Do you have further examples of this?
- Clarification....** What did you actually do? When you saydo you mean...? When you mention.... are you thinking of....?
- Feedback/Active listening...**
- Summary....**
- Q2:** Tell me about the messages you wanted the different materials you utilised to convey about what you uncovered during the precedent study task?
- Prompts for self**
- Probe....** Could you say something more about...Can you give me a more detailed description of that...Do you have further examples of this?
- Clarification....** What did you actually do? When you saydo you mean...? When you mention.... are you thinking of....?
- Feedback/Active listening...**
- Summary....**
- Q3:** Describe in as much detail as possible how you went about constructing your response/representation including the 2D and 3D materials
- Probe....** Could you say something more about...Can you give me a more detailed description of that...Do you have further examples of this?
- Clarification....** What did you actually do? When you saydo you mean...? When you mention.... are you thinking of....?
- Feedback/Active listening...**
- Summary....**

Notes:

I would now like to move on to the final topic

Topic 4: The Review Process

- Q1:** Tell me about the ways you went about hanging your work and positioning your model/s in your crit space for the review
- Probe....** Could you say something more about...Can you give me a more detailed description of that...Do you have further examples of this?
- Clarification....** What did you actually do? When you saydo you mean...? When you mention.... are you thinking of....?
- Feedback/Active listening...**
- Summary....**
- Q2:** Describe in as much detail as possible what happened during the review process from your perspective
- Probe....** Could you say something more about...Can you give me a more detailed description of that...Do you have further examples of this?
- Clarification....** What did you actually do? When you saydo you mean...? When you mention.... are you thinking of....?
- Feedback/Active listening...**
- Summary....**
- Q3:** Please describe your thoughts about how you used the following non-verbal communication modes during your review –gaze (eyes facial expression), posture (bodily), gesture (arms and hands, bodily) and movement (physical use of crit space)
- Probe....** Could you say something more about...Can you give me a more detailed description of that...Do you have further examples of this?
- Clarification....** What did you actually do? When you saydo you mean...? When you mention.... are you thinking of....?
- Feedback/Active listening...**
- Summary....**
- Q4:** Tell me about the ways you managed the feedback from your peers and tutors during the questions and feedback phase of the review process
- Probe....** Could you say something more about...Can you give me a more detailed description of that...Do you have further examples of this?
- Clarification....** What did you actually do? When you saydo you mean...? When you mention.... are you thinking of....?
- Feedback/Active listening...**
- Summary...**

Notes

Concluding comments:

-Would you like to add anything or have you any questions or queries before I explain what happens next and conclude our interview today?

-Follow up details: I will prepare a transcript of our interview using the notes I made during the interview and the audio recording. When that is done, I will email you a draft copy so that you can check that you are happy my transcription is an accurate reflection of our discussions. I would appreciate it if you could email me your comments on the draft within 10 days as this will help me manage the transition to the analysis phase of my research study effectively.

-Thank you for taking part today

-I am turning off the audio recorder now....

Time.....

Appendix 12: The Project Brief

Houses house not only people and their belongings, they also contain memory and meaning. In such domestic theatres, lives are played out.



"Houses don't have to be one-off architectural masterpieces to have life-changing effects on their occupants" Jay Merrick

"I get very blue about all the modern architecture which is called sustainable and actually just has lots of glass. If only we would have the engineering umph to work out what sustainability really needs and then find out a new architecture out of that." Max Fordham

"... this test bed for sustainability is approached through passive design and finessed with sensitivity and obsessive attention to spatiality, light and materials. It's a manifesto with a heart." Hattie Hartman on 9 Stock Orchard Street.

'It is important for architects to get to grips with the financial side – it is not just a question of bunging in a planning application and making things look nice.' Ghislaine Halpenny.

INTRODUCTION

What do architects think about when they think about houses? Do they always remember that the design of a house, or housing, is the most fundamental test of humane architectural engagement? Do they always imagine, in the greatest detail, how the domestic spaces they create might affect the physical, mental and emotional well-being of those who inhabit them? Do they think they are designing houses, or homes? And if their idea gives form to a particular form of dwelling, where does that idea begin, or end?

The house as home is central to our sense of existence, our awareness of family, place, community, possibility. The way houses are designed encourages or represses civility, emotion and creativity. The idea for a house design should not be the product of a solipsistic imagination, however brilliant. Nor can the idea arise solely from the suggestions of specific sites, or localities, or even legendary architectural precedents.

The design of a house, or housing, cannot belong only to the architect or client. The architect's idea must take shape, modestly or extraordinarily, as a deliberate and personal act of responsibility, a ramifying decency addressed to the daily home lives of people that they will probably never meet.

It is a commonly held view that the bedrock of the architectural profession is the design of projects for domestic clients. It is also a truism that the domestic sector is a nursery, or test bed, for young or emerging practices. After a cursory scan of the 2014 AJ Small Projects Awards shortlist, I approximate that the majority of projects are domestic (63 per cent), by practices of fewer than 10 employees (58 per cent), and in existence for less than eight years (58 per cent).

However, it is also true that the one-off house often represents the pinnacle of an architect's career. An obvious point of reference is Frank Lloyd Wright's Fallingwater, conceived in his 60s, and recognised in 1991 by a national survey of the American

Institute of Architects as 'the best all-time work of American architecture'.

This indicates the potential importance of domestic architecture, which I strongly believe can transcend its typology to impart a wider, positive influence upon our attitude and approach to architecture: a relationship that is evidently reciprocal. During the recent construction boom, many of Ireland's leading practices have resisted viewing the domestic market as a major source of business activity, instead seeking work in a range of construction sectors perceived as having greater scale, complexity and thus social significance than housing.

We have now seen that this 'boom' was unsustainable and many of Ireland's leading practices have re-evaluated the importance of domestic design. We can see this through a series of successful projects that are defined through the principles of good architectural practice; choreographing context and programme, specificity as well as the generic, issues of cost efficiency and innovation, modern methods of construction as well as craft, sustainability, ecology, complex planning policy, and the legal pitfalls of light and boundary ownership.

The objective of this project is to encourage innovation in house and housing design, to show how social and technological ambitions can be met by intelligent design. As designers, we must remember that the housing is not in isolation, but is one contributing typology to our landscape. As such we are under a moral obligation to adhere to sustainable values, to create buildings which have a long life and loose fit, and which are able to accommodate evolving uses for changing patterns of life and need.

To paraphrase Adolf Loos, the good house develops style and grows with its inhabitants, the style of the house being the style of the family, not the architect.

PROJECT SCOPE

Imagine you are asked to come up with a design for a new series of homes – a design for the mass market that pushes against the tried-and-tested approach of leading volume housebuilders whilst simultaneously recognizing the tight constraints of its business model.

Now imagine that you must also do this for four separate types of household and must factor in futurology by considering the demographic and technological changes that will affect this market in the next 10-20 years.

Can you design an affordable housing solution in [name of location] that would set new standards for new built developments across Ireland?

PRELIMINARY FUNCTIONAL BRIEF

Your solutions should possess the ability to respond to rapidly changing patterns of household formation and consumer taste by harnessing 'creativity and innovation'.

THE SCHEDULE OF ACCOMMODATION

Using a 6-meter module you must create four separate house types;

- Single occupancy unit
- Starter family unit
- Small family unit
- Large family unit

THE SITE

Your site is on the south side of [location of site]

PRECEDENTS

In the precedent evaluation students, will not only record the details of the examples studied but will also be able to explain why the major design decisions were taken. Students will be able to make sensible and appropriate choices for building study. Analytical material will be presented clearly and lucidly in line with techniques outlined above

LIST OF PRECEDENTS FOLLOWS:

PRECEDENT	STUDENT

EDUCATIONAL AIMS

The aims of this project are to investigate:

- living patterns and long-term flexibility
- cost effective affordable housing
- modern methods of construction
- occupant comfort, health and well-being
- energy conscious design solutions

RECOMMENDED READING

CARTWRIGHT PICKARD ARCHITECTS AND MEARU, *are our homes making people sick?* **The Architects' Journal**, 7 AUGUST, 2015

Accessed from [<http://www.architectsjournal.co.uk/buildings/are-our-homes-making-people-sick/8687255.article?blocktitle=Buildings&contentID=14011>]

Martyn Evan s: 'Not every architect should be a developer', **The Architects' Journal**, 21 JANUARY, 2016

Accessed from [<http://www.architectsjournal.co.uk/opinion/martyn-evan-s-not-every-architect-should-be-a-developer/10001843.article>]

Merrick, J., Designs for living: the house as home, **The Architects' Journal**, 30 NOVEMBER, 2015

Accessed from [<http://www.architectsjournal.co.uk/culture/designs-for-living-the-house-as-home/8692233.article>]

Zogolovitch, R. (2015) *Shouldn't we all be developers?* Artifice books, London

EDUCATIONAL PROGRAMME AND SUBMISSION REQUIREMENTS

The project will develop in three phases. At the end of each phase your scheme will be reviewed and assessed.

PHASE 1 – RESEARCH: Policy, Site Evaluation, Precedents, Conceptual Development

(Weeks 1 - 2: 29th February – 7th March)

PHASE 2 – SKETCH DESIGN: Strategies, Spatial Planning, Light and Space, Energy, Materials

(Weeks 2 -3: 7th March –14th March)

PHASE 3 – DETAIL DEVELOPMENT: 1:1 Material study, Lighting Study, 1:20 Building Fabric Study, 1:5 Working Detail, Energy Calculations, Occupant Comfort Study, Services Diagrams.

(Review day with all staff 12/13th April)

(Weeks 3 - 8: 14th March – 21st April)

PHASE 4 – FINAL PRESENTATION

(Weeks 9-10: 21st April – 5th May)

TIMETABLE

Studio 3 will operate on Mondays between 11:00-13:00, and on Thursdays between 10:00 and 13:00. You will be expected to attend both sessions every week and produce new work weekly. Attendance and personal contributions will be monitored.

Appendix 13: Research Notes

Research Note 1

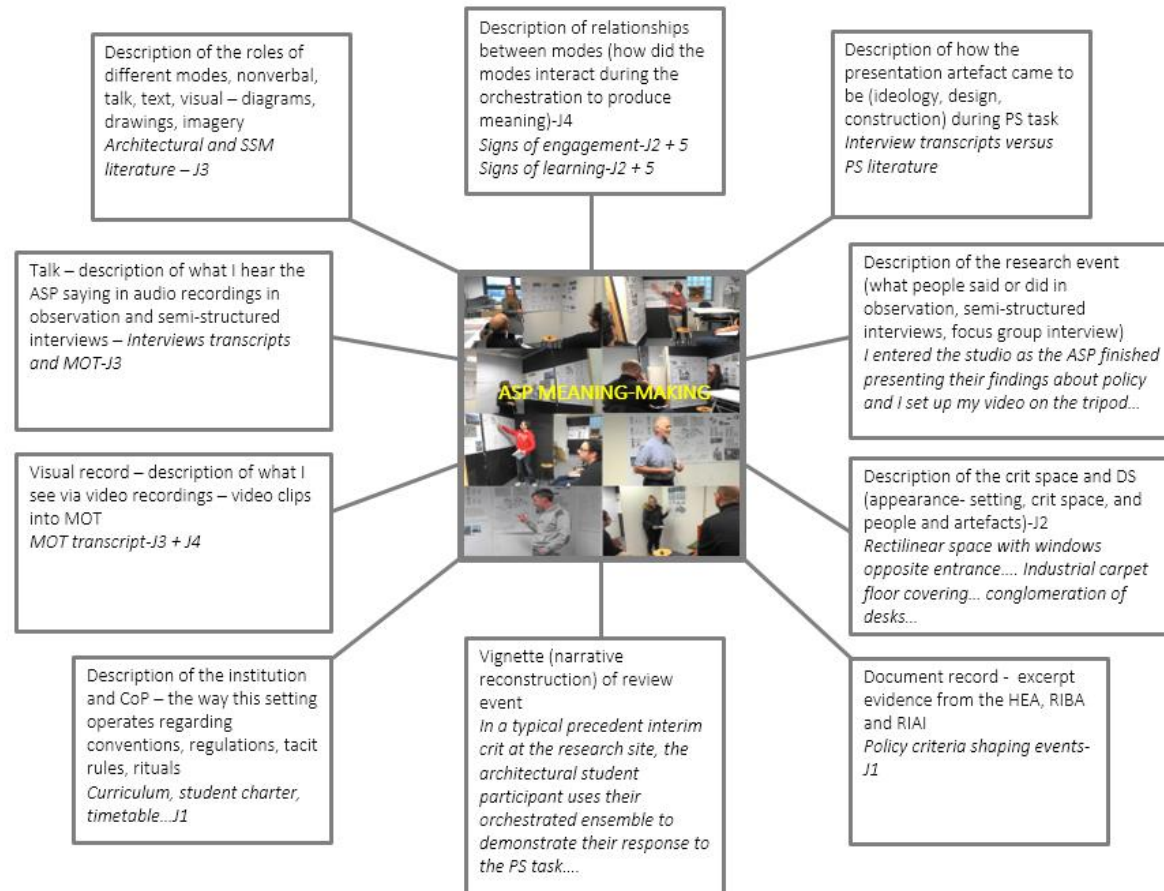


Figure 109: Building the picture of the ASP MM to produce thick description (Source: Holliday, 2002, pp.125-126).

Research Note 2

Hatch, J. A (2002). *Doing qualitative research in education settings.* New York, USA: State University of New York Press.

Spradley, J. P. (1979). *The ethnographic interview.* Illinois, USA: Waveland Press, Inc.

Spradley's universal semantic relationships as they relate to my research setting plus analytic approach – Spradley, 1979, pp.110-111 and Hatch, pp.161-166...

1. Strict inclusion	X is a kind of Y
2. Spatial	X is a place in Y, X is a part of Y
3. Cause-effect	X is a result of Y, X is a cause of Y
4. Rationale	X is a reason for doing Y
5. Location for action	X is a place for doing Y
6. Function	X is used for Y
7. Means-end	X is a way to do Y
8. Sequence	X is a step (stage) in Y
9. Attribution	X is an attribute (characteristic) of Y

(Source: Spradley, 1979, p.111).

DISCOVERING DOMAINS GIVES ME A WAY TO UNCOVER, GET AT HOW ASP AND COLLEAGUES ORGANISE THEIR UNDERSTANDING AND OPERATE IN THIS COP – MUST BE STRUCTURED TO MAKE THEIR DISCOVERY POSSIBLE – SPECIFIC ELEMENTS MUST BE RELATED TO OTHER ELEMENTS – ORGANISED AROUND RELATIONSHIPS THAT CAN BE EXPRESSED SEMANTICALLY (relating to meaning, especially in language – relating to/arising from the different meanings of words or other symbols)

DOMAIN (CATEGORIES) – MEMBERS SHARE AT LEAST ONE FEATURE OF MEANING- CAN BE UNDERSTOOD BY PEOPLE WITH COMMON CULTURAL UNDERSTANDINGS

Strict inclusion – *x is a kind of y* – ASP are a specific kind of architectural student – ASP4 is a distinct kind of student as non-native English speaker from an eastern culture (FOREIGNER-LACKS COMMON CULTURAL UNDERSTANDING) within this student group – using an arrow to depict the direction of north is an architectural convention, using a section to show vertical spatial arrangements is an architectural convention, using a plan to show how spaces are organised horizontally is an architectural convention, using different line weights for emphasis is an architectural convention but also one of the functional specialisms of visual media for semiosis

Spatial – *x is a place in y* – the crit space is an area within the DS, the DS is a space within the school of engineering and design, the school is a space within the IoT institution- the DS is learning space within school of engineering and design

Cause-effect – *x is a result of y* – less contact time with the students is the result of cost cutting measures- enactment/learning/becoming is the result of having the right level of insider knowledge, being communicatively literate and thirdly managing orchestration – learning is a result of using all three kinds of communicative resources drawing on conventions effectively –

transformative learning is the result of using learning about arch conventions to drive designing output

Rationale	- <i>x is a reason for doing y</i> – helping ASP manage their learning is a reason for interim crits- managing learning is a reason for translating what is collected in the digital environment into notes and diagrams – being dyslexic is a reason for not being able to manage digital desktop research effectively-coming from a different culture and being a non-native English speaker is a reason for finding it hard to understand CoP shared stock of knowledge – how to use communicative resources conventions...
Location for action	- <i>x is a place for doing y</i> – the crit space is a place for the ASP to express their learning – the canteen is a place for the ASP to socialise together- the DS is a place the students learn actively together
Function	- <i>x is used for y</i> – interim crits are used by ASP to communicate their design thinking/work with tutors and peers- google is used by ASP to research during the PS task- words, gestures, writing and visual media are used by the ASP to communicate their PS task findings
Means-end	- <i>x is a way to do y</i> – crits are a way to hold ASP accountable- using the present tense while talking, gesturing and interacting with presentation materials is a way to bring design alive for the listener/viewer
Sequence	- <i>x is a step in y (action/process)</i> – the PS task is a step in the DP – moving towards the presentation materials to superimpose gesture on one drawing is a step in the orchestration
Attribution	- <i>x is a characteristic of y</i> – interest is a characteristic of engagement – using architectural terminology correctly is a sign of learning – using the right drawing to do the right job is a sign of learning- using gestures to show nonvisible components of architecture like air change movement is a way to animate and support design output

Domains can be shown by identifying "included terms" and "cover terms" connected by semantic relationship (Spradley, 1979, p.114). Where included terms identify the members of the group and cover terms names the category into which all the included terms fit – means end domain – using communicative resources effectively – cover term – present tense speaking, while gesturing at, using right drawing/diagram – included terms - Can represent these relationships graphically in table.

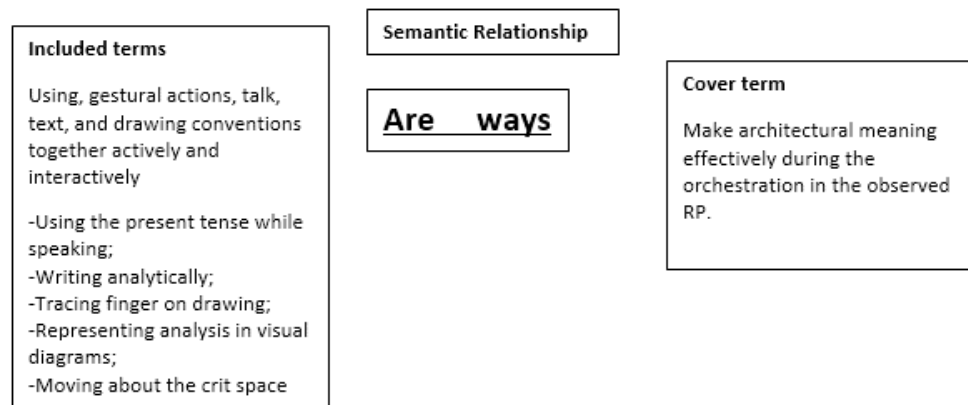


Figure 110: Research note 2. (Source: Spradley, 1979, p.111)

Appendix 14: Extracts QCI Awards Standards - Architecture

		Knowledge			
		Level 6	Level 7	Level 8	Level 9
		The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:
Knowledge-Breadth		Specialised knowledge of a broad area	Specialised knowledge across a variety of areas	An understanding of the theory, concepts and methods pertaining to a field (or fields) of learning	A systematic understanding of knowledge, at, or informed by, the forefront of a field of learning
Knowledge-Kind		Some theoretical concepts and abstract thinking, with significant underpinning theory	Recognition of limitations of current knowledge and familiarity with sources of new knowledge; integration of concepts across a variety of areas	Detailed knowledge and understanding in one or more specialised areas, some of it at the current boundaries of the field(s)	A critical awareness of current problems and/or new insights, generally informed by the forefront of a field of learning
DESIGN	Design Theory and Practice	Knowledge of elementary design theory and processes	Knowledge of a variety of architectural design theories and processes	Knowledge (with a professional level of breadth and depth) of design theory and processes and the relationship between design theory and practice	Critical awareness with new insights into the reciprocal relationship between people, buildings and the broader environment Systematic and critical understanding of local, regional, national and international contexts for planning and development
	The Brief and Programme	Knowledge of the function of the 'brief' and 'programme' for a design project	Knowledge of different types of briefs/programmes and their relationships with building users' needs	Understanding how to research and prepare the brief/ programme for a design project (taking appropriate factors into account) and of the roles of the architect, client and other professionals who may be involved in its formulation	
	Planning	Basic awareness of the relationship between people and their needs, and buildings; and between buildings and their environment, both built and natural	Knowledge of the impact and interdependency of architectural designs and the local and global environments Awareness of urban and regional context for the design of buildings	Understanding of relationships between people, buildings, external spaces, the built and the natural environment and of the methods for relating the built environment and scale to society's needs Knowledge of theories of urban design and of planning and development legislation, policy, practices and contexts and of the methods involved in progressing a design project through the planning system	
CULTURAL CONTEXT	History and Theory of Architecture and Related Subjects	Knowledge of the basic intellectual, social, scientific, technological and cultural underpinnings of architecture	Integrated knowledge of the histories and theories of architecture, its relationship with associated arts, technologies and human sciences and recognition of its limitations	Comprehensive knowledge of the histories and theories of architecture and related historical, social, scientific, technological, cultural and environmental influences	A systematic understanding and critical awareness of the historical and theoretical contexts for, and influences on, cutting edge contemporary architecture with fresh insights
	Fine Arts	Foundational knowledge of the fine arts including arts theory, arts practice, arts production and their relationship to architectural design	Knowledge of the relationship between crafts, the fine arts and architectural design and their impacts on each other	Knowledge of how the quality of architectural design is influenced by an understanding of the fine arts, including those specific to the local/prevaling culture	Systematic understanding of the art of architecture with particular reference to the forefront of the field
	Architectural Conservation	Awareness of architectural conservation issues	Adequate knowledge of the principles of architectural conservation	Adequate knowledge of the methods and current practice of architectural conservation	
TECHNOLOGY AND THE ENVIRONMENT	Structures—Engineering and Construction	Foundational knowledge of applied science, technology, engineering and mathematics	Specialised knowledge of scientific, engineering and technological disciplines with application to the ecologically-sustainable design, construction and maintenance of the built environment	Integrated understanding of a range of problems associated with <ul style="list-style-type: none"> • construction systems and methods • materials and their properties • structural design, theories and systems with application to building design and knowledge of relevant research and appraisal methods	Systematic and comprehensive understanding of structural design, constructional and engineering problems at the forefront of the building design field
	Buildings, People and Environment both built and global	Understanding of the concept of the 'built environment', its different aspects (e.g. spatial, ergonomic, aesthetic, acoustic, visual, thermal) and how these are perceived by and affect building users	Knowledge of principal methods and technologies for the provision of conditions of access, comfort and protection to all users of the built environment	Knowledge of how to design and construct buildings that provide safe, comfortable, functional internal environments	Knowledge of current research relating to the creation of ecologically sustainable built environments that provide comfort and protection

Figure 111: Extract QQI Award Standards Architecture. (Source: Quality and Qualifications Ireland, 2014, p.3).

ARCHITECTURAL COMMUNICATION	Conventions for communicating	Understanding of the conventions, modes and styles of discourse and communication in architecture		Knowledge of innovative methods of communication in architectural design	
PROFESSIONAL PRACTICE	Knowledge of Professional Practice Regulation and Professional Practice	Awareness of the professional and social roles of the architect including their responsibility to the built and natural environment Awareness of systems and regulations (regulatory framework) relevant to architecture	Understanding of the professional and social roles of the architect Specialised knowledge of the regulatory framework within which architects operate	Systematic understanding of architectural professional practice including: the role of the architect in the design team, during construction, in the construction industry and in society more generally Understanding of the <ul style="list-style-type: none"> • legal, professional and statutory responsibilities of the architect • relevant laws and legal principles • industries, organisations, regulations and procedures involved in translating and integrating design concepts into planned built environments 	Systematic knowledge of the structures and resources required for effective architectural practice
RESEARCH AND PERSONAL DEVELOPMENT	Development and use of Knowledge in Architecture	Understanding how knowledge is originated in architecture and transformed and framed by it	Awareness of architectural research concepts and terminology and familiarity with sources of new knowledge	Knowledge of innovation and research methods appropriate in the culture and practice of architecture	Systematic understanding of methods for the generation of new knowledge through original research, advanced practice or scholarship

Knowledge – breadth Knowledge outcomes are associated with facts and concepts; that is, they refer to knowledge of, or about, something. The more diverse, complex and varied the facts and concepts, the greater the breadth of knowledge and this is a matter of level. Breadth is distinguished from the number of different facts and concepts learned, which relates to volume.

Knowledge – kind The representation of facts and concepts, including ideas, events or happenings, is cumulative. The more facts and concepts are layered on top of each other, and draw successively upon each other to construct meaning, the higher the level of learning. This process is typically associated with progressively greater abstraction from concrete phenomena into theory.

Figure 112: Extract QQI Award Standards Architecture. (Source: Quality and Qualifications Ireland, 2014, p.4).

		Level 6	Level 7	Level 8	Level 9	
		The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	
Know-how and Skill- Range		Demonstrate comprehensive range of specialised skills and tools	Demonstrate specialised technical, creative or conceptual skills and tools across an area of study	Demonstrate mastery of a complex and specialised area of skills and tools; use and modify advanced skills and tools to conduct closely guided research, professional or advanced technical activity	Demonstrate a range of standard and specialised research or equivalent tools and techniques of enquiry	
Know-how and Skill- Selectivity		Formulate responses to well-defined abstract problems	Exercise appropriate judgement in planning, design, technical and/or supervisory functions related to products, services, operations or processes	Exercise appropriate judgement in a number of complex planning, design, technical and/or management functions related to products, services, operations or processes, including resourcing	Select from complex and advanced skills across a field of learning; develop new skills to a high level, including novel and emerging techniques	
GENERAL		Observe, reflect, describe, record, experiment and draw conclusions	Experiment, analyse, synthesise and summarise information	Identify and evaluate information, apply critical judgement and formulate objective strategies for action, innovating where appropriate	Critically analyse relevant theoretical frameworks, methodologies and practices	
	DESIGN	Design Skill and Interpreting the Brief	Analyse and understand the environmental, social and cultural context of a project and respond to them with a design solution	Explore, develop, define, communicate and implement a design proposal	Analyse, prioritise and synthesise the project brief/ programme and context, consider design options and subject them to critical judgement, so as to produce a coherent and well-resolved design solution	Generate and test advanced and innovative design propositions which respond to rigorously researched issues and contexts
	CULTURAL CONTEXT	Design Selectivity	Identify and use relevant sources of information (including technical and regulatory constraints) in the process of design development	Incorporate and/or respond to architectural, artistic, historical, natural and built heritage precedents in appropriate ways taking technical and regulatory constraints into account	Provide, through design, appropriate conditions of comfort in response to environmental context and climate, taking technical and regulatory constraints into account	
	TECHNOLOGY AND THE ENVIRONMENT	Conservation Skill	Demonstrate the elementary technical skills of the architect and their use in design	Demonstrate the elementary technical skills of the architect and selectivity in their use in design	Factor conservation principles into the consideration of design options	Factor conservation principles into the consideration of technological, structural and materials options
	Technical skills which can be applied in the context of design	Elementary methods for the creation of design responses to defined structural problems	Demonstrate creative design and analysis of simple structures	Demonstrate the technical skills of the architect at a professional level and selectivity in their use	Demonstrate ability to select from complex and advanced skills and to develop new skills relating to emerging techniques to a high level	
	Structural Design and Analysis			Design and analyse advanced architectural structures in collaboration with engineering professionals		

Figure 113: Extract QQI Award Standards Architecture. (Source: Quality and Qualifications Ireland, 2014, p.5).

ARCHITECTURAL COMMUNICATION	Communication skills	Communicate through listening, speaking, writing, drawing, and modelling	Communicate an architectural concept quickly and clearly in sketch, model and verbal form	Communicate effectively within the field of architecture with all involved in the design and construction process and with external audiences	Communicate results of research and innovation to peers
PROFESSIONAL PRACTICE		Demonstrate basic decision-making skills in the performance of well-defined tasks	Demonstrate effective decision-making skills within the context of individual and team tasks	Demonstrate authentic appreciation of the responsibilities of architects to clients, to building users and to all involved in the design and construction process	Demonstrate an advanced appreciation of the architect's role in evaluating risks and outcomes and advising on appropriate action
RESEARCH AND PERSONAL DEVELOPMENT	Research and enquiry	Investigate, enquire, experiment and keep research records, use precedent studies	Critically evaluate precedent studies as applicable to NFQ Level 7 design projects	Undertake supervised research and systematic analysis and construct reasoned responses from available information and evidence	Demonstrate a range of standard and specialised research or equivalent tools and techniques of architectural enquiry

Know-how and skill – range Skills, in both their execution and the demonstration of underpinning procedural knowledge, encompass the use of many different kinds of tool. 'Tool' refers to any device or process that facilitates individuals having some effect on their physical, informational or social environment. Tools include cognitive and social processes as well as physical implements. Tools, and the skills to use them, range from commonplace or familiar to novel or newly-invented. The sheer number of skills acquired is a matter of volume, rather than of level. The diversity of skills is a feature of this strand that contributes to differentiation in level. The completeness of the set of skills (and associated know-how) in respect of an area of activity is another feature that helps indicate the level.

Know-how and skill – selectivity The performance of tasks depends on the learner having an appropriate understanding of the environment in which the tasks are performed and being aware of his/her own ability and limitations, while at the same time being able to correctly judge the fit between the demands and ability. Whereas the range of know-how and skill refers to what a learner can do, selectivity (which might also be called procedural responsiveness) refers to the judgement that the learner exercises in carrying out procedures, through selecting from the range of know-how and skills available to him/her, in accordance with his/her appraisal of the demands of the task.

Figure 114: Extract QQI Award Standards Architecture. (Source: Quality and Qualifications Ireland, 2014, p.6).

Appendix 15: Extracts from Programme Curriculum
BA (Honours) Architectural Design (BAAD, 2014)

CRITERIA NUMBERS	RIBA CRITERIA	STAGE 1					STAGE 2					STAGE 3					STAGE 4				
		Design Studio 1 – a,b,c,d,e,f	Design Communication	Building Science & Technology	Cultural context	Design Theory	Design Studio 2 a,b,c,d,e,f	Design Communication	Building Science & Technology	Cultural context	Design Theory	Design Studio 3 a,b,c,d,e,f	Design Communication	Building Science & Technology	Cultural context	Design Theory	Design Studio 4 a,b,c,d,e,f	Building Science & Technology	Cultural context - Dissertation	Professional Studies	
	O= Addressed X= Assessed	Module No.	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	3.4	3.5	4.1	4.2	4.3	4.4
GC1	Ability to create architectural designs that satisfy both aesthetic and technical requirements The graduate will have the ability to:																				
.1	prepare and present building design projects of diverse scale, complexity, and type in a variety of contexts, using a range of media, and in response to a brief.		O					O					O						X		
.2	understand the constructional and structural systems, the environmental strategies and the regulatory requirements that apply to the design and construction of a comprehensive design project.		O		O			O		O			O		O				X	X	
.3	develop a conceptual and critical approach to architectural design that integrates and satisfies the aesthetic aspects of a building and the technical requirements of its construction and the needs of the user.		O				O	O				O	O				X	X			
GC2	Adequate knowledge of the histories and theories of architecture and the related arts, technologies and human sciences The graduate will have knowledge of:																				
.1	the cultural, social and intellectual histories, theories and technologies that influence the design of buildings;		O			O		O			O		O		O					X	
.2	the influence of history and theory on the spatial, social, and technological aspects of architecture;					O	O			O	O				O	X				X	
.3	the application of appropriate theoretical concepts to studio design projects, demonstrating a reflective and critical approach.		O				O	O				O					O	X			
GC3	Knowledge of the fine arts as an influence on the quality of architectural design The graduate will have knowledge of:																				
.1	how the theories, practices and technologies of the arts influence architectural design;					O	O			X		O			O	O					
.2	the creative application of the fine arts and their relevance and impact on architecture;					O				X		O			O	O					
.3	the creative application of such work to studio design projects, in terms of their conceptualisation and representation.		O			O	O			O		O			O	X					
GC4	Adequate knowledge of urban design, planning and the skills involved in the planning process The graduate will have knowledge of:																				
.1	theories of urban design and the planning of communities;												O		X			X			
.2	the influence of the design and development of cities, past and present on the contemporary built environment;		O			O							X		X			X			
.3	current planning policy and development control legislation, including social, environmental and economic aspects, and the relevance of these to design development.												O		O			X			O
GC5	Understanding of the relationship between people and buildings, and between buildings and their environment, and the need to relate buildings and the spaces between them to human needs and scale The graduate will have an understanding of:																				
.1	the needs and aspirations of building users;		O	O	O		O		O	O		O	O		O			X	X		
.2	the impact of buildings on the environment, and the precepts of sustainable design;		O	O			O		O			O	O		O			X	X		
.3	the way in which buildings fit into their local context.		O			O			O			O			O			X			

Figure 115: Extract 1 Mapping to RIBA Criteria. (Source: Programme curriculum, BAAD, 2014, p.68).

		1.1	1.2	1.3	1.4	1.6	2.1	2.2	2.3	2.4	2.6	3.1	3.2	3.3	3.4	3.6	4.1	4.2	4.3	4.4
GC6	Understanding of the profession of architecture and the role of the architect in society, in particular in preparing briefs that take account of social factors The graduate will have an understanding of:																			
.1	the nature of professionalism and the duties and responsibilities of architects to clients, building users, constructors, co-professionals and the wider society;																			X
.2	the role of the architect within the design team and construction industry, recognising the importance of current methods and trends in the construction of the built environment;											X								X
.3	the potential impact of building projects on existing and proposed communities				O	O						O		O			X			
GC7	Understanding of the methods of investigation and preparation of the brief for a design project The graduate will have an understanding of:																			
.1	the need to critically review precedents relevant to the function, organisation and technological strategy of design proposals;	O				O	O					O	O				O	X		
.2	the need to appraise and prepare building briefs of diverse scales and types, to define client and user requirements and their appropriateness to site and context;	O					O					O						X		
.3	the contributions of architects and co-professionals to the formulation of the brief, and the methods of investigation used in its preparation.											O						X		X
GC8	Understanding of the structural design, constructional and engineering problems associated with building design The graduate will have an understanding of:																			
.1	the investigation, critical appraisal and selection of alternative structural, constructional and material systems relevant to architectural design;	O	O				O	O				O	O					X	X	
.2	strategies for building construction, and ability to integrate knowledge of structural principles and construction techniques;	O	O				O	O				O	O					X	X	
.3	the physical properties and characteristics of building materials, components and systems, and the environmental impact of specification choices.	O	O				O	O				O	O					X	X	
GC9	Adequate knowledge of physical problems and technologies and the function of buildings so as to provide them with internal conditions of comfort and protection against the climate The graduate will have knowledge of:																			
.1	principles associated with designing optimum visual, thermal and acoustic environments;	O	O				O	O				O	O					X	X	
.2	systems for environmental comfort realised within relevant precepts of sustainable design;	O	O				O	O				O	O					X	X	
.3	strategies for building services, and ability to integrate these in a design project.	O	O				O	O				O	O					X	X	
GC10	The necessary design skills to meet building users' requirements within the constraints imposed by cost factors and building regulations The graduate will have the skills to:																			
.1	critically examine the financial factors implied in varying building types, constructional systems, and specification choices, and the impact of these on architectural design;											X								
.2	understand the cost control mechanisms which operate during the development of a project;											X								
.3	prepare designs that will meet building users' requirements and comply with UK legislation, appropriate performance standards and health and safety requirements.											O						X	X	O
GC11	Adequate knowledge of the industries, organisations, regulations and procedures involved in translating design concepts into buildings and integrating plans into overall planning The graduate will have knowledge of:																			
.1	the fundamental legal, professional and statutory responsibilities of the architect, and the organisations, regulations and procedures involved in the negotiation and approval of architectural designs, including land law, development control, building regulations and health and safety legislation;											O						O		X
.2	the professional inter-relationships of individuals and organisations involved in procuring and delivering architectural projects, and how these are defined through contractual and organisational structures;											X								O
.3	the basic management theories and business principles related to running both an architects' practice and architectural projects, recognising current and emerging trends in the construction industry.											O								X

Figure 116: Extract 2 Mapping to RIBA Criteria. (Source: Source: Programme curriculum, BAAD, 2014, p.69).

1.15. Semester 5

Code	Author	Full Title	M/E	NFQ	ECTS	AT	FT	PT	CW	FE
DSGN07063		Architectural Studio: Representation 3a	M	07	05	N/A	4.00	0.00	100%	0%
DSGN07052		Architectural Context and Theory 3A	M	07	05	N/A	4.00	0.00	100%	0%
BUIL07014		Building Science and Technology 3A	M	07	05	N/A	3.00	0.00	100%	0%
					Credits Available	15				
					Credits Required	30				

Credits Required 30

Special Regulation : Module DSGN07055 will be taught over the whole year

0 Electives Required

Key

M/E - Mandatory or Elective, **NFQ** - National Framework of Qualifications Level, **ECTS** - Credits, **AT** - Attendance Requirement, **FT** - Fulltime Average Weekly Hours, **PT** - Parttime Average Weekly Hours

CW - Course Work Percentage, **FE** - Final Exam Percentage

Figure 117: Extract Programme Schedule for 3rd Year BAAD. (Source: Programme curriculum, BAAD, 2014, p.14).

1.1.6. Semester 6

Code	Author	Full Title	M/E	NFQ	ECTS	AT	FT	PT	CW	FE
DSGN07055		Architectural Studio 3	M	07	30	N/A	24.00	0.00	100%	0%
DSGN07054		Architectural Studio: Representation 3b	M	07	05	N/A	4.00	0.00	100%	0%
DSGN07053		Architectural Context and Theory 3B	M	07	05	N/A	4.00	0.00	100%	0%
BUIL07015		Building Science and Technology 3B	M	07	05	N/A	3.00	0.00	100%	0%
Credits Available					45					
Credits Required					30					

Credits Required 30

Special Regulation : Module DSGN07055 will be taught over the whole year

0 Electives Required

Key

M/E - Mandatory or Elective, **NFQ** - National Framework of Qualifications Level, **ECTS** - Credits, **AT** - Attendance Requirement, **FT** - Fulltime Average

Weekly Hours, **PT** - Parttime Average Weekly Hours

CW - Course Work Percentage, **FE** - Final Exam Percentage

Figure 118: Extract Programme Schedule for 3rd Year BAAD. (Source: Programme curriculum, BAAD, 2014, p.15).

Year Three

Year three consolidates the student's understanding of the design process as applied to resolving complex design problems within the framework of a negotiated brief. It develops students' design skills to a level where they can synthesise all of the relevant and disparate factors, influences and requirements within the design solution. The year's focus is on developing the skills required to participate confidently within a multi-disciplinary team and to begin to comprehend the cost implication and regulatory frameworks associated with their design choices. All modules are assessed through submitted project work, essays, reports and presentations. Assessment requirements are contained in design studio and other module briefs.

Figure 119: Extract Programme Structure for 3rd Year. (Source: Source: Programme curriculum, BAAD, 2014, p.25).

The third year design project involves collaboration across many disciplines within the Institute. Initial feasibility and brief development is discussed with Tourism students. Then each Architectural Design student is placed in a team with a Quantity Surveying student, Civil Engineering student and managed by a Construction Project Management student. The detailed design is then promoted by students in the Marketing programme.

Interdisciplinary links are fostered within the Institute, with engineering and design programmes and related design disciplines providing both lecturing expertise and the opportunity for collaborative student projects. Forging formal links with regional agencies, practitioners and suppliers is an ongoing process.

Figure 120: Extract Multidisciplinary Collaborative Projects for 3rd Year BAAD. (Source: Programme curriculum, BAAD, 2014, p.26).

- | |
|---|
| <p>6. Exhibit an ability to communicate design ideas through the use of visual, verbal and written communication methods appropriate media and techniques to clearly and effectively convey and critically appraise design ideas and proposals.</p> |
|---|

Figure 121: Year Three DS Learning Outcome regarding Communication. (Source: Programme curriculum documentation archive).

Appendix 16: Extract from RIBA Validation Procedures

The General Criteria at RIBA part 1 and RIBA part 2

GC1 Ability to create architectural designs that satisfy both aesthetic and technical requirements

- GC1 The graduate will have the ability to:
- .1 prepare and present building design projects of diverse scale, complexity, and type in a variety of contexts, using a range of media, and in response to a brief;
 - .2 understand the constructional and structural systems, the environmental strategies and the regulatory requirements that apply to the design and construction of a comprehensive design project;
 - .3 develop a conceptual and critical approach to architectural design that integrates and satisfies the aesthetic aspects of a building and the technical requirements of its construction and the needs of the user.

GC2 Adequate knowledge of the histories and theories of architecture and the related arts, technologies and human sciences

- GC2 The graduate will have knowledge of:
- .1 the cultural, social and intellectual histories, theories and technologies that influence the design of buildings;
 - .2 the influence of history and theory on the spatial, social, and technological aspects of architecture;
 - .3 the application of appropriate theoretical concepts to studio design projects, demonstrating a reflective and critical approach.

GC3 Knowledge of the fine arts as an influence on the quality of architectural design

- GC3 The graduate will have knowledge of:
- .1 how the theories, practices and technologies of the arts influence architectural design;
 - .2 the creative application of the fine arts and their relevance and impact on architecture;
 - .3 the creative application of such work to studio design projects, in terms of their conceptualisation and representation.

GC4 Adequate knowledge of urban design, planning and the skills involved in the planning process

- GC4 The graduate will have knowledge of:
- .1 theories of urban design and the planning of communities;
 - .2 the influence of the design and development of cities, past and present on the contemporary built environment;
 - .3 current planning policy and development control legislation, including social, environmental and economic aspects, and the relevance of these to design development.

GC5 Understanding of the relationship between people and buildings, and between buildings and their environment, and the need to relate buildings and the spaces between them to human needs and scale

- GC5 The graduate will have an understanding of:
- .1 the needs and aspirations of building users;
 - .2 the impact of buildings on the environment, and the precepts of sustainable design;
 - .3 the way in which buildings fit into their local context.

- GC6 Understanding of the profession of architecture and the role of the architect in society, in particular in preparing briefs that take account of social factors**
- GC6 The graduate will have an understanding of:
- .1 the nature of professionalism and the duties and responsibilities of architects to clients, building users, constructors, co-professionals and the wider society;
 - .2 the role of the architect within the design team and construction industry, recognising the importance of current methods and trends in the construction of the built environment;
 - .3 the potential impact of building projects on existing and proposed communities.
- GC7 Understanding of the methods of investigation and preparation of the brief for a design project**
- GC7 The graduate will have an understanding of:
- .1 the need to critically review precedents relevant to the function, organisation and technological strategy of design proposals;
 - .2 the need to appraise and prepare building briefs of diverse scales and types, to define client and user requirements and their appropriateness to site and context;
 - .3 the contributions of architects and co-professionals to the formulation of the brief, and the methods of investigation used in its preparation.
- GC8 Understanding of the structural design, constructional and engineering problems associated with building design**
- GC8 The graduate will have an understanding of:
- .1 the investigation, critical appraisal and selection of alternative structural, constructional and material systems relevant to architectural design;
 - .2 strategies for building construction, and ability to integrate knowledge of structural principles and construction techniques;
 - .3 the physical properties and characteristics of building materials, components and systems, and the environmental impact of specification choices.
- GC9 Adequate knowledge of physical problems and technologies and the function of buildings so as to provide them with internal conditions of comfort and protection against the climate, in the framework of sustainable development**
- GC9 The graduate will have knowledge of:
- .1 principles associated with designing optimum visual, thermal and acoustic environments;
 - .2 systems for environmental comfort realised within relevant precepts of sustainable design;
 - .3 strategies for building services, and ability to integrate these in a design project.
- GC10 The necessary design skills to meet building users' requirements within the constraints imposed by cost factors and building regulations**
- GC10 The graduate will have the skills to:
- .1 critically examine the financial factors implied in varying building types, constructional systems, and specification choices, and the impact of these on architectural design;
 - .2 understand the cost control mechanisms which operate during the development of a project;
 - .3 prepare designs that will meet building users' requirements and comply with UK legislation, appropriate performance standards and health and safety requirements.

GC11 Adequate knowledge of the industries, organisations, regulations and procedures involved in translating design concepts into buildings and integrating plans into overall planning

GC11 The graduate will have knowledge of:

- .1 the fundamental legal, professional and statutory responsibilities of the architect, and the organisations, regulations and procedures involved in the negotiation and approval of architectural designs, including land law, development control, building regulations and health and safety legislation;
- .2 the professional inter-relationships of individuals and organisations involved in procuring and delivering architectural projects, and how these are defined through contractual and organisational structures;
- .3 the basic management theories and business principles related to running both an architects' practice and architectural projects, recognising current and emerging trends in the construction industry.

The Graduate Attributes for part 1

GA1 With regard to meeting the eleven General Criteria at parts 1 and 2 above, the part 1 will be awarded to students who have:

- .1 ability to generate design proposals using understanding of a body of knowledge, some at the current boundaries of professional practice and the academic discipline of architecture;
- .2 ability to apply a range of communication methods and media to present design proposals clearly and effectively;
- .3 understanding of the alternative materials, processes and techniques that apply to architectural design and building construction;
- .4 ability to evaluate evidence, arguments and assumptions in order to make and present sound judgments within a structured discourse relating to architectural culture, theory and design;
- .5 knowledge of the context of the architect and the construction industry, and the professional qualities needed for decision making in complex and unpredictable circumstances; and
- .6 ability to identify individual learning needs and understand the personal responsibility required for further professional education.

Figure 122: Extract from RIBA (2014) validation procedures, pp.59-62

Appendix 17: Composite Presentation Materials

<p>ASP1 translated almost all the visual data she sourced online into a series of planimetric site and layout diagrams, sections, elevations, interior visualisation and 3D axonometric views of the units at different scales, using colour and different line weights for emphasis to represent her findings for precedent one. However, there is no detailed site map or detailed written annotation accompanying her visual analysis. She grouped her work under a series of headings drawn from her analysis.</p>	<p>ASP2 translated the data she sourced online into diagrammatic information using scale, colour and line weight for emphasis. However, key layout information is missing. ASP2's presentation sheets contain large-scale photographic reproductions of the development particularly on the second sheet. I interpreted this to be related to her stated difficulty accessing information for that precedent.</p>	<p>ASP3 sent the sheets illustrated below on to me after the RP. However, at the crit he had pinned a series of analytical diagrams documenting the different spatial layouts for the alternative typologies (figure). Nonetheless his presentation artefacts mainly comprise reproductions of other peoples' imagery taken directly from his data sources on which he overlaid his analysis. He has not included detailed site plans for either development.</p>	<p>ASP4 relied on reproducing and simplifying the data she sourced online for both precedents as I discussed in detail in the previous section regarding her distinct cultural heritage. There is no analytical annotation for precedent two and the text she uses for precedent one is based on the text in the data sources. Like ASP1 she uses a series of headings to frame her notes based on her interests and the brief including context, safety and well-being, materials and form. Like ASP2 she uses large scale photographic images and, there are no plans, or sections.</p>	<p>ASP5 intimated he had difficulty locating relevant data including plans, sections and sensate information. His presentation sheets contain visual reproductions of the data sourced online and minimally paraphrased text. The text is descriptive technical information about the assembly component and how the building systems operate in both exemplars. ASP5 did not produce any analytical evidence and during his presentation he read from a script based entirely on the data sourced online. ASP5, like ASP6, faces ongoing challenges stemming from dyslexia.</p>	<p>ASP6 relied on reproducing the visual information he sourced online for precedent two while he drew over and simplified the data he sourced for precedent one. He did not produce any analytical diagrams for precedent two. The drawings for precedent one comprised of tracings of the original imagery devoid of analytical commentary. Previously I discussed the challenges he faced relating to his learning difficulties stemming from his challenges with dyslexia.</p>	<p>ASP7 was ill during the P5 task and so he did not complete the task fully. His work for the second precedent was incomplete. He indicated he relied on capturing visual and textual data he sourced online and reproducing the drawings and text. The text is descriptive and is based entirely on the data sourced online.</p>	<p>ASP8 did not complete the task for the reasons outlined in the previous section regarding the amount of time she requires to assimilate data because of her ongoing language difficulties stemming from her distinct cultural background.</p>
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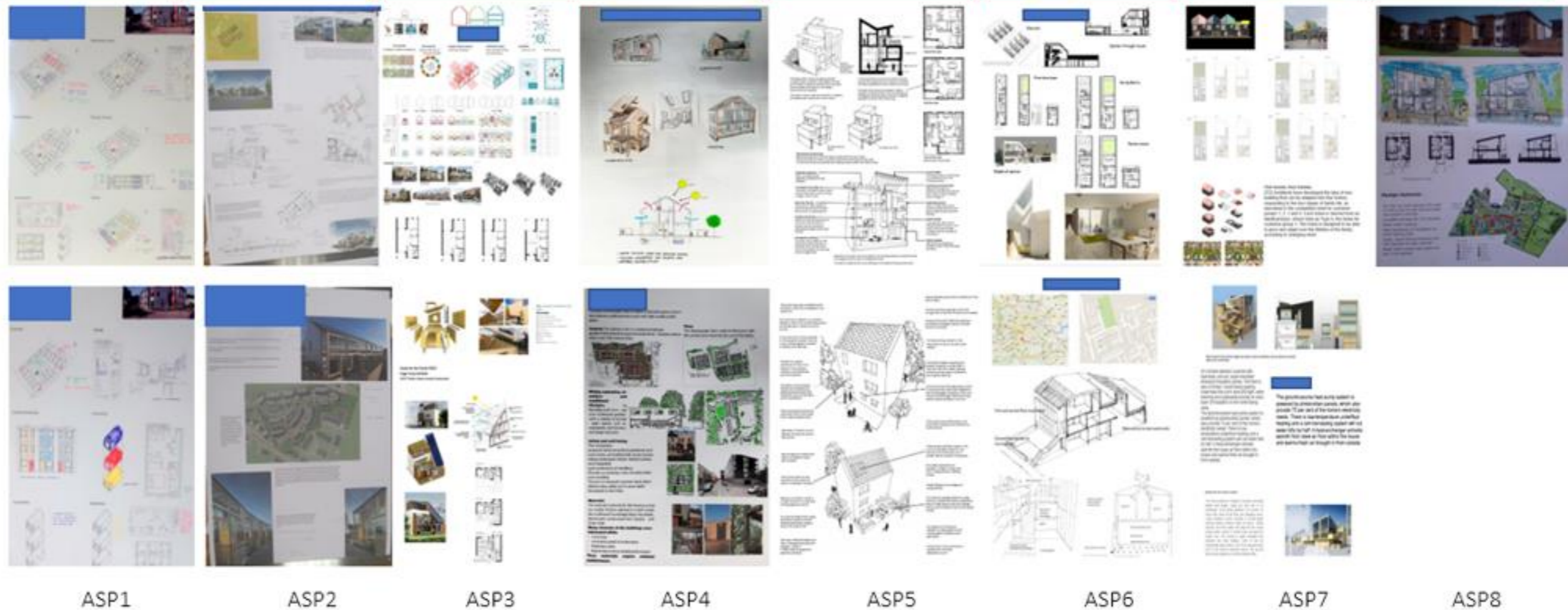


Figure 123: Composite participants visual artefacts.