

APPENDIX D: CLASSROOM DATA SHEET

3. Age of classroom

4. Area of classroom (m²)

5. Plan of classroom indicating:

Window type and position.

Orientation of classroom.

Type and amount of glazing.

Wall finish (material and colour).

Ceiling finish (material and colour).

Ceiling height.

Internal partitions.

Internal doors (material, glazed).

Floor finish.

Furniture (type and position).

Artificial lighting and sources.

Shading devices.

APPENDIX E: OBSERVATIONAL DATA SHEET

School Date Time

Classroom Year Group Lesson

Teacher Support Staff Pupils M..... F.....

Time	Teacher Activity	Pupil Activity	Class Organisation	Descriptive and Additional Information	Lesson Structure

APPENDIX E: OBSERVATIONAL DATA SHEET

Rate impressions of the following characteristics of the classroom environment in relation to the lesson. (Circle one)

- | | | | | | |
|---------------------------------|---------|------|--------------|------|---------|
| 1. Size. | V. Poor | Poor | Satisfactory | Good | V. Good |
| 2. Organisation and layout. | V. Poor | Poor | Satisfactory | Good | V. Good |
| 3. Acoustics. | V. Poor | Poor | Satisfactory | Good | V. Good |
| 4. Lighting. | V. Poor | Poor | Satisfactory | Good | V. Good |
| 5. Temperature and ventilation. | V. Poor | Poor | Satisfactory | Good | V. Good |

APPENDIX F: OBSERVATION DATA SHEET CATEGORIES

Lesson Structure:

- 1. Administration:** Pupils arrive, registration and announcements.
- 2. Introduction:** Teacher explains and presents the activity and instructions to the class.
- 3. Main Teaching Activity:** Teaching input and pupil activities, the main part of the lesson for working directly as a whole class, in groups, in pairs or as individuals.
- 4. Transition:** Pupils have completed task and are engaged in another activity.
- 5. Plenary:** The teacher talks to the whole class to summarise key facts and ideas, to make links to other work and discuss next steps.
- 6. Concluding stage:** Cleaning up classroom and clearing away of work and resources, the lesson ends and pupils leave the classroom.

Teacher/Learning Support Staff Activity:

- 1. Teaching:** Teacher presents activity, instructing and demonstrating.
- 2. Managing:** Setting things up, giving instructions, controlling class or concluding a task.
- 3. Unrelated:** Not related to current task, investigating a problem or dealing with interruptions.

Pupil Activity:

- 1. Engaged on task:** Pupils engaged on the set task.
- 2. Task related:** Pupils engaged in a activity associated with the task, such as collecting materials.
- 3. Distracted:** Pupils not engaged on task.
- 4. Waiting:** Pupils waiting for turn when essential to continuation of task (not distracted).
- 5. Other:** Pupils engaged in another activity, either his or her own making or as suggested by the teacher.

Class Organisation:

- 1. Whole class:** All the pupils undertaking a similar activity, at the same time.
- 2. Groups:** Pupils in groups
- 3. Paired:** Pupils working in collaboration with one other pupil.
- 4. Individual:** Pupils working alone.
- 5. Out of the room:** Pupils have left the room as individuals or as part of a group.

APPENDIX G: TEACHER INTERVIEW SHEET

Classroom Identification

Please rate your impressions of the following characteristics of the classroom environment in relation to the lesson. (Circle one)

Q1. Size. V. Poor Poor Satisfactory Good V. Good

Q2. Organisation and layout. V. Poor Poor Satisfactory Good V. Good

Q3. Acoustics. V. Poor Poor Satisfactory Good V. Good

Q4. Lighting. V. Poor Poor Satisfactory Good V. Good

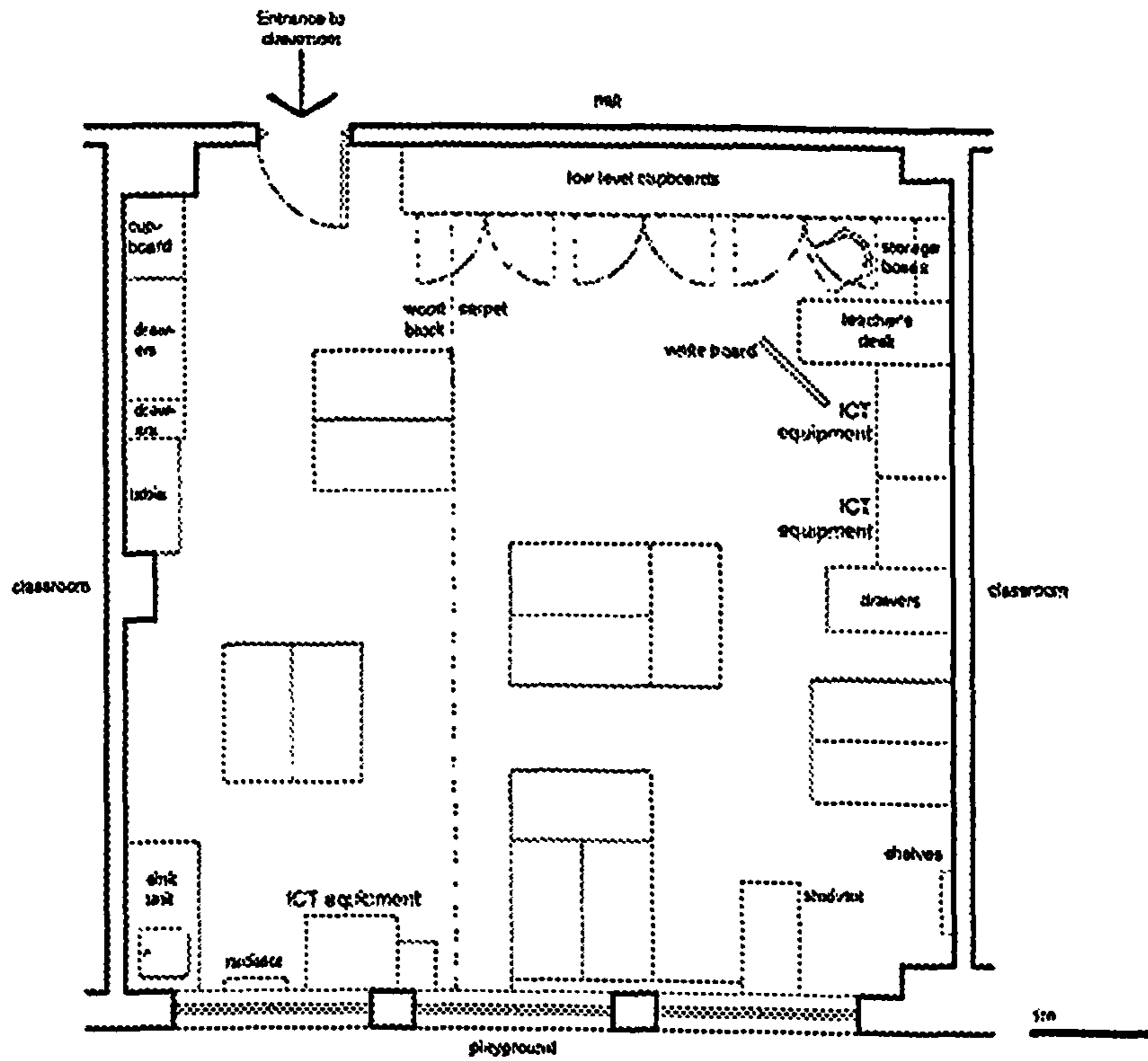
Q5. Temperature and ventilation. V. Poor Poor Satisfactory Good V. Good

Q6. Does the way you teach or the subject matter you teach require any special features within the classroom?

Q7. What do you think about the classroom environment? Do you think the layout and organisation of the classroom interferes with the way you teach and if so, how?

Q8. What would you change about your classroom to have amore effective teaching/learning environment?

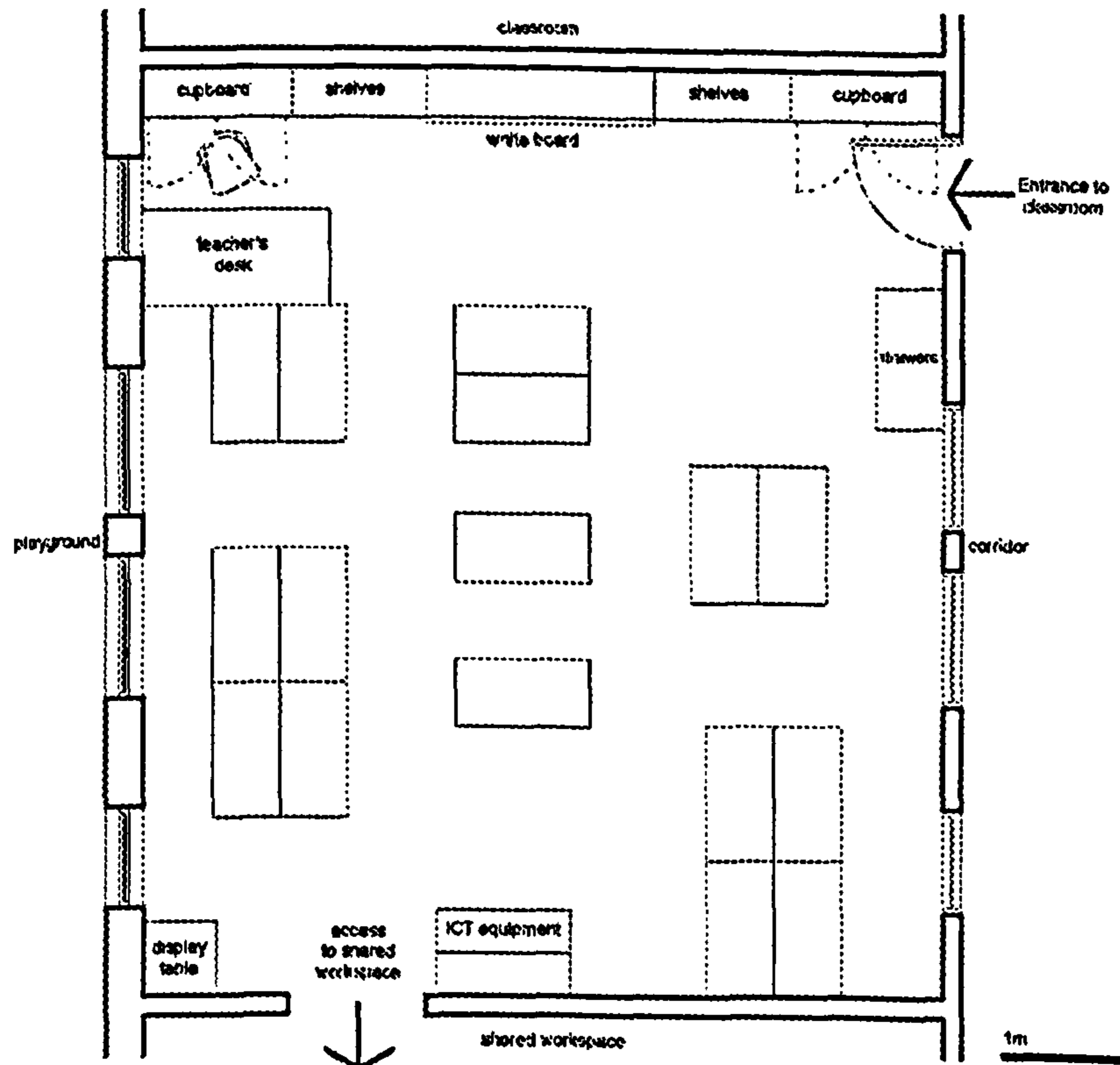
Classroom 1



Age of classroom: pre-1919

Area of classroom (m²): 45

Classroom 2

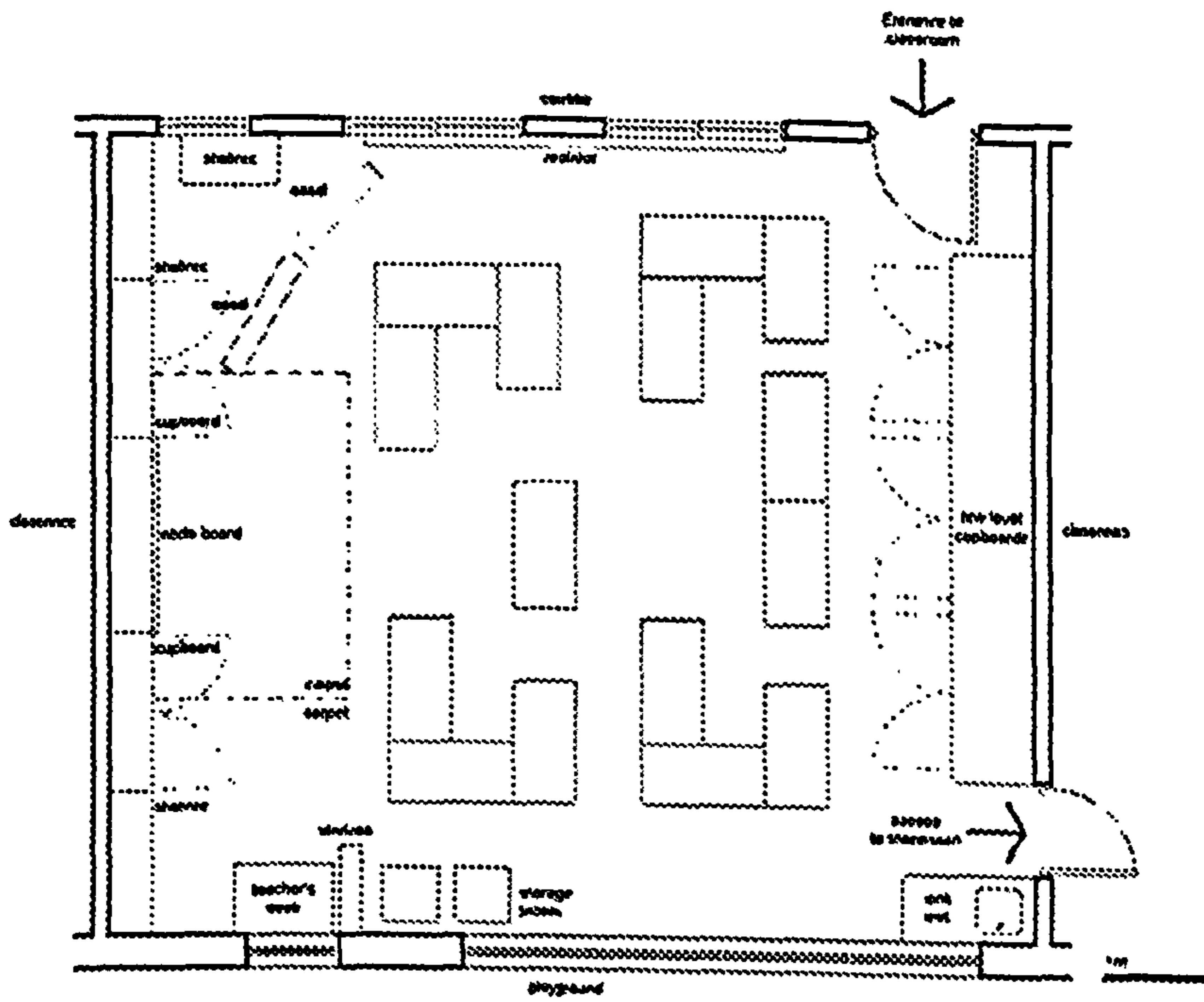


Age of classroom: 1932

Area of classroom (m²): 44

APPENDIX H: CLASSROOM DATA

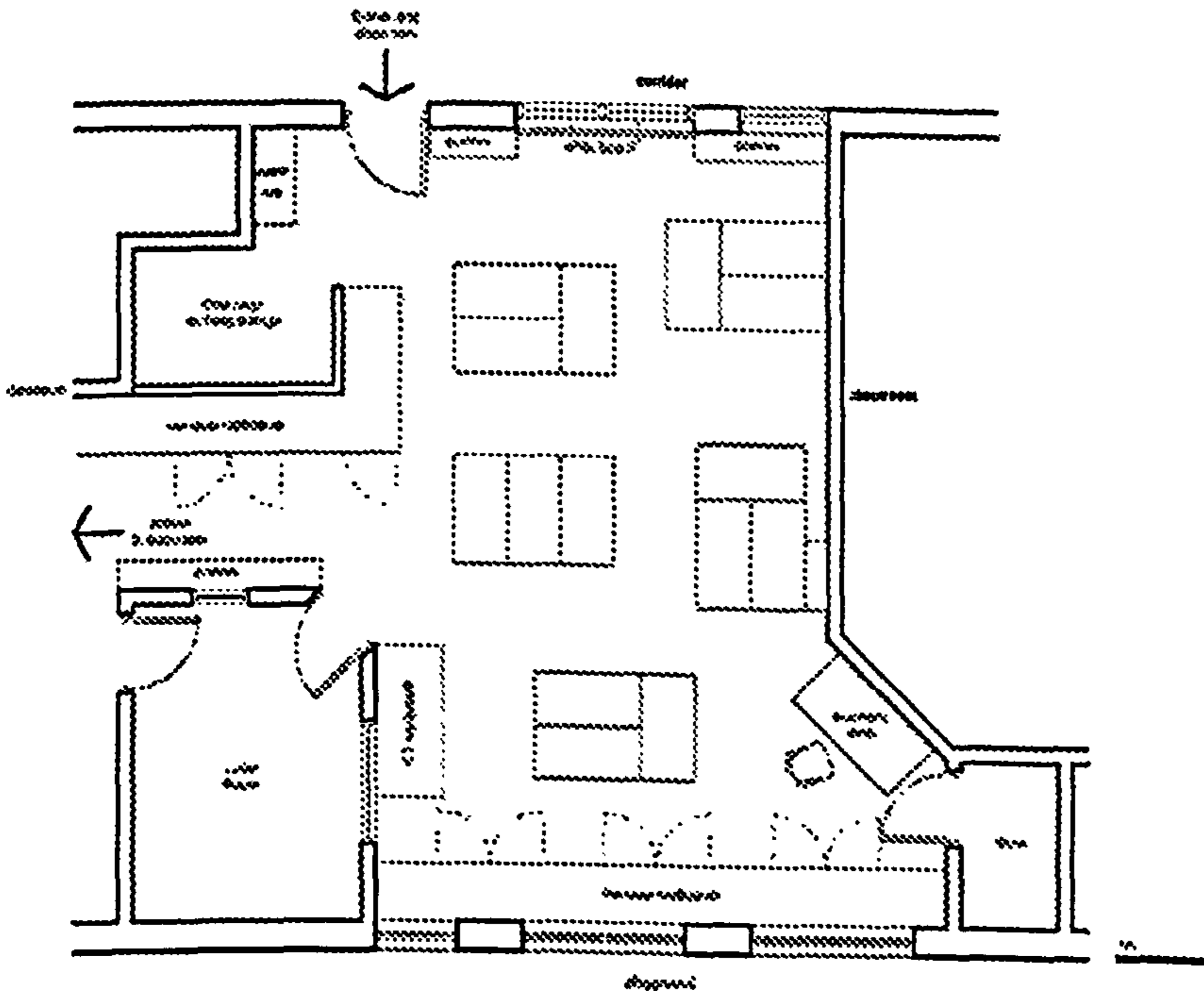
Classroom 3



Age of classroom: 1935

Area of classroom (m²): 58

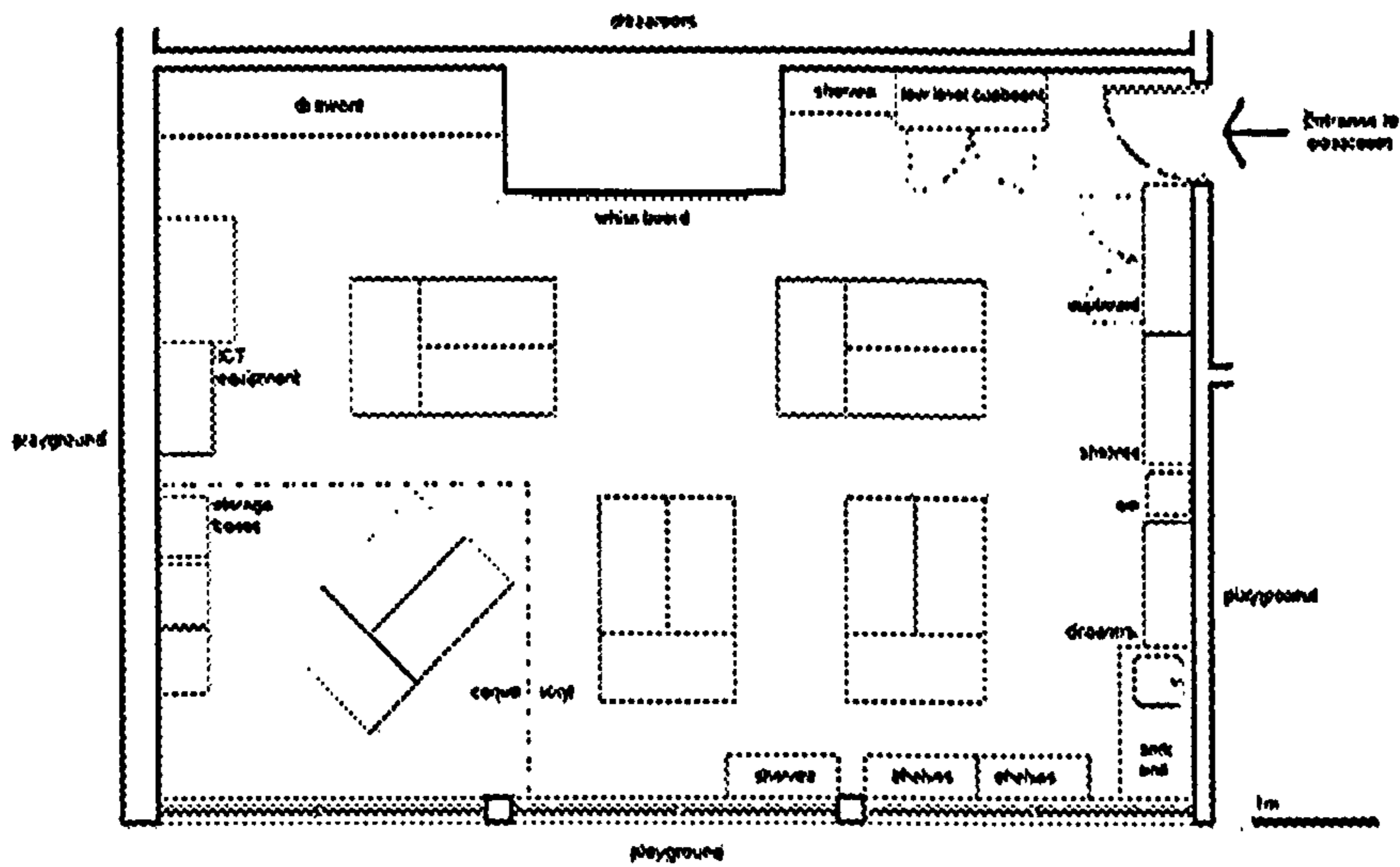
Classroom 4



Age of classroom: 1946

Area of classroom (m²): 50

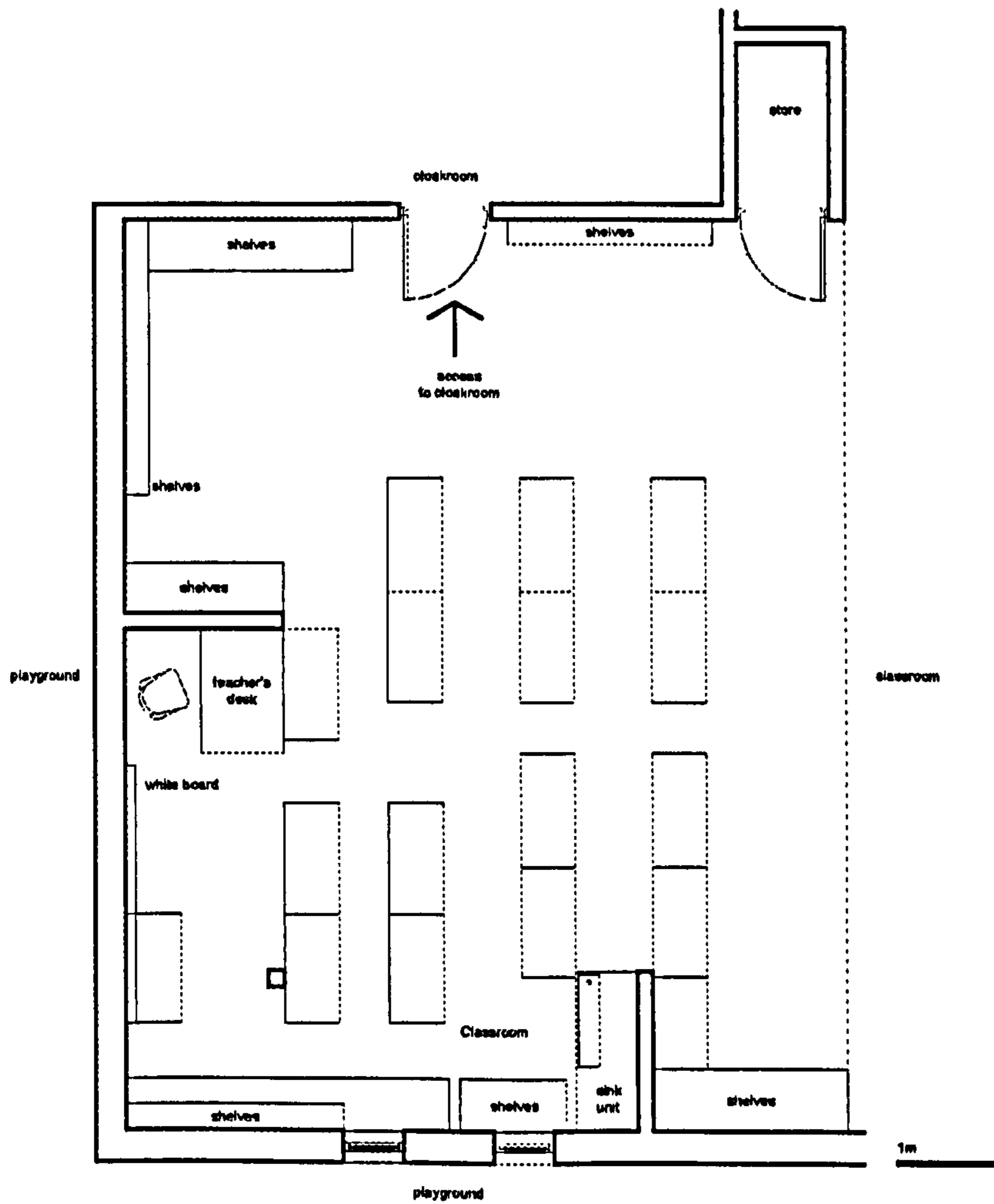
Classroom 5



Age of classroom: 1960

Area of classroom (m²): 47

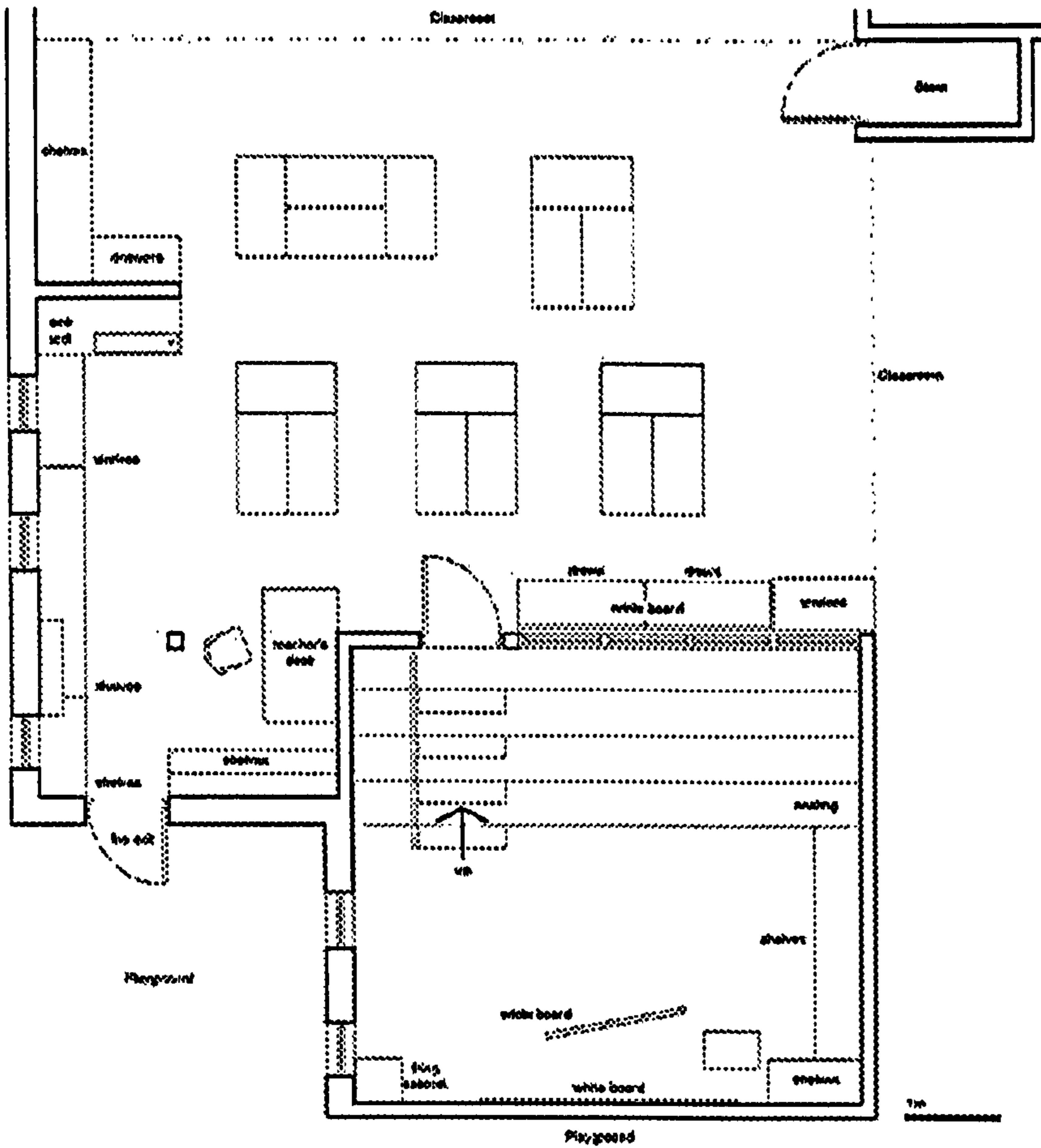
Classroom 6



Age of classroom; 1976

Area of classroom (m²): 56

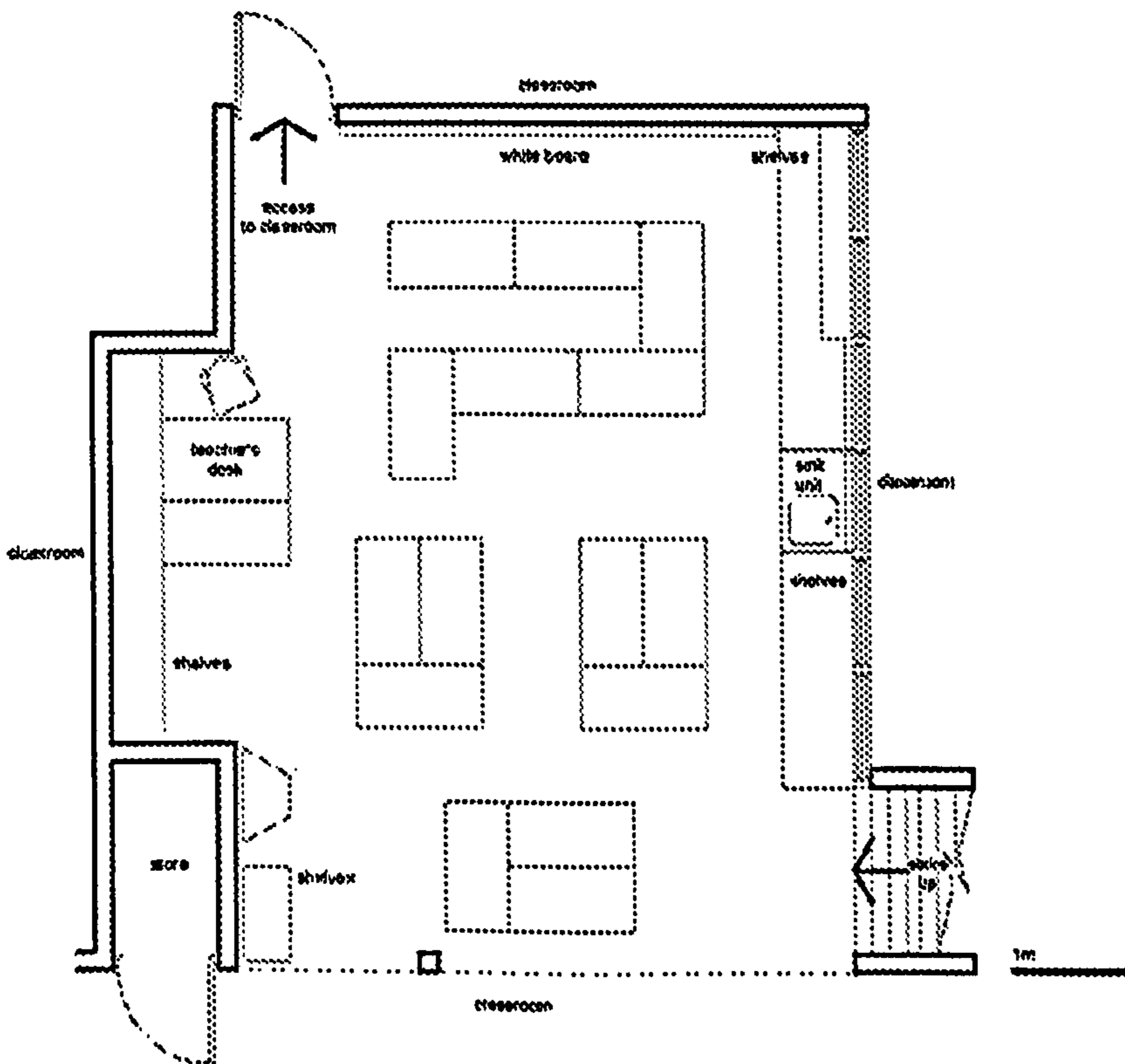
Classroom 7



Age of classroom: 1976

Area of classroom (m²): 57

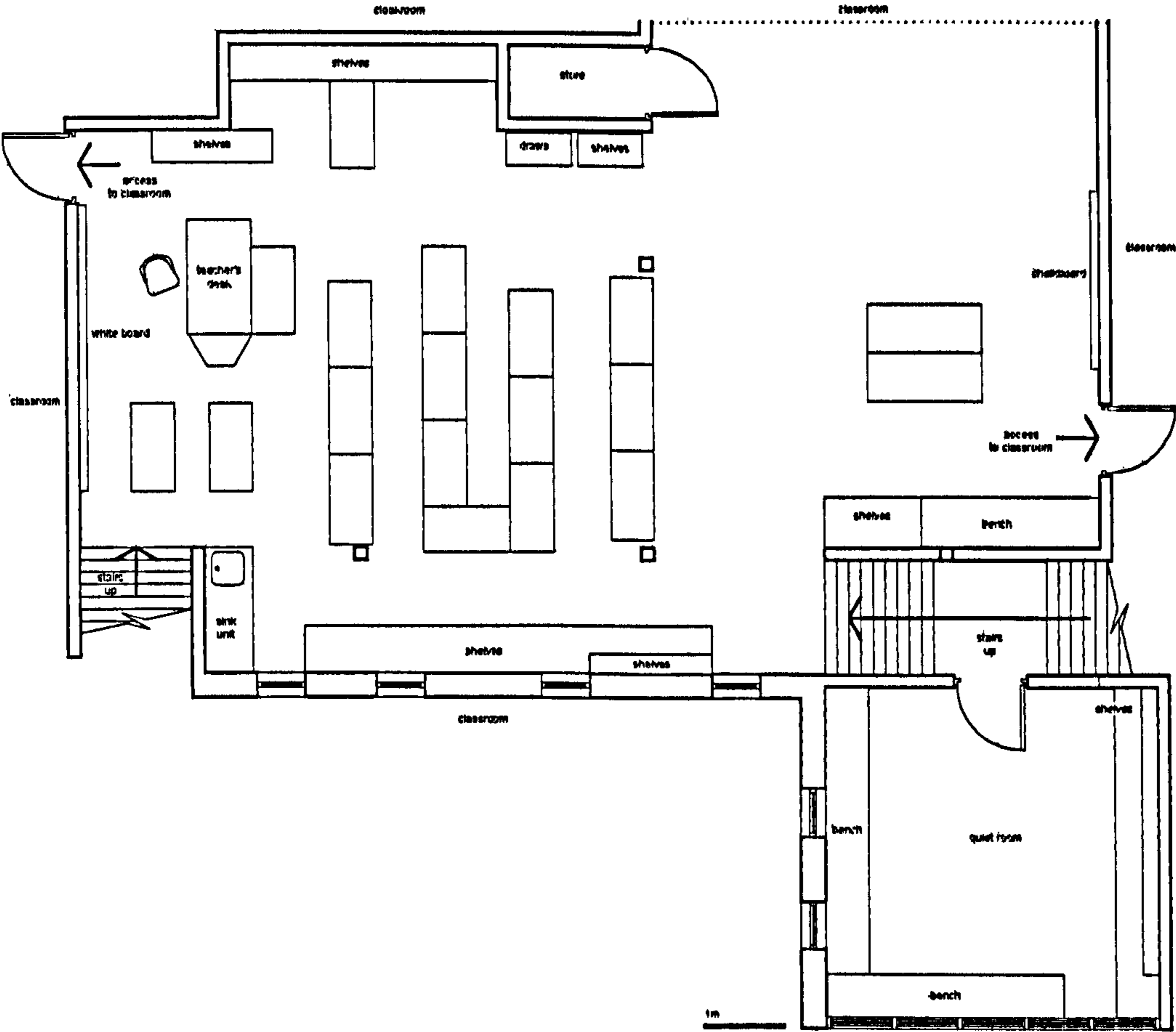
Classroom 8



Age of classroom: 1976

Area of classroom (m²): 42

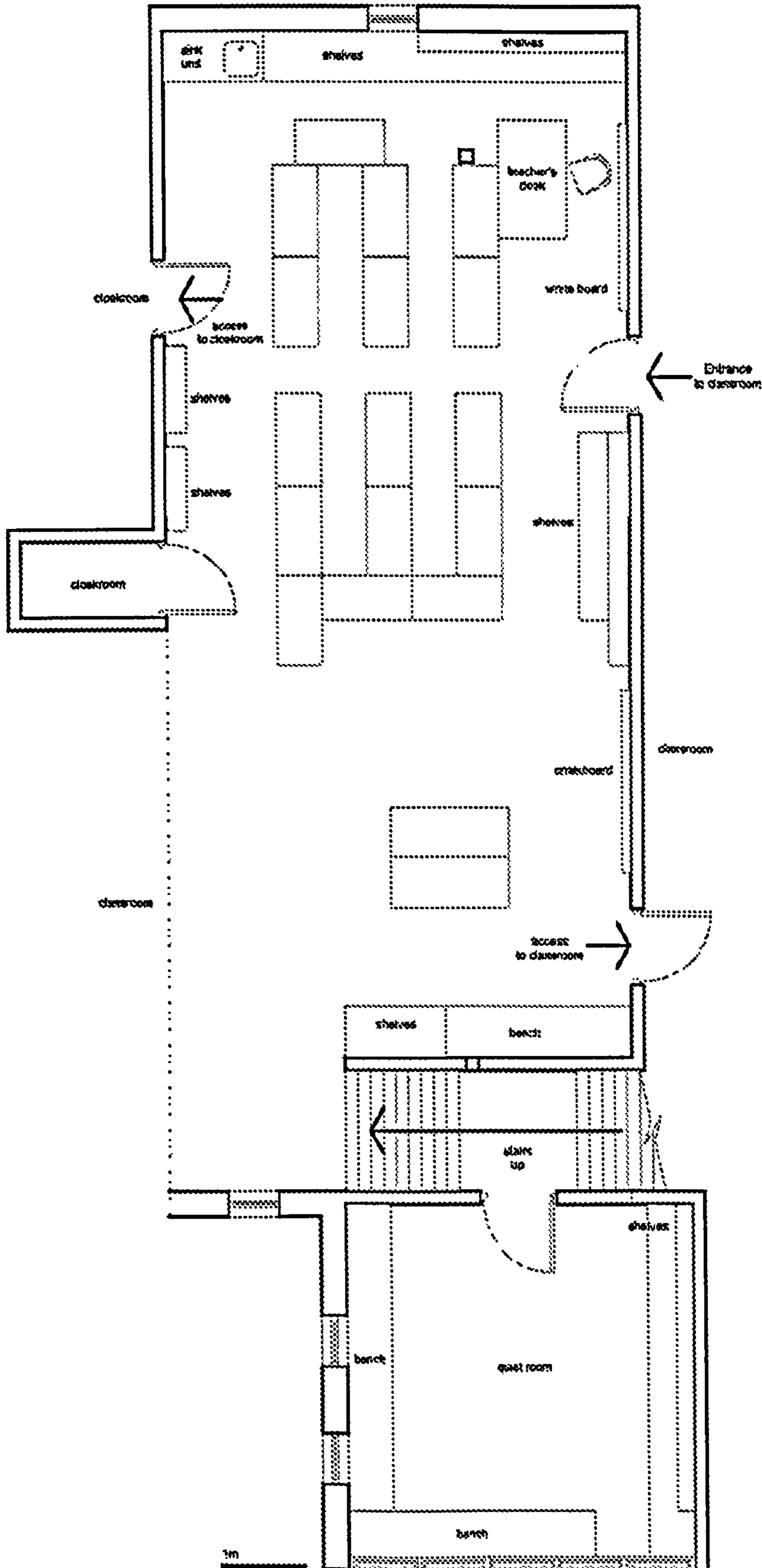
Classroom 9



Age of classroom: 1976

Area of classroom (m²): 53

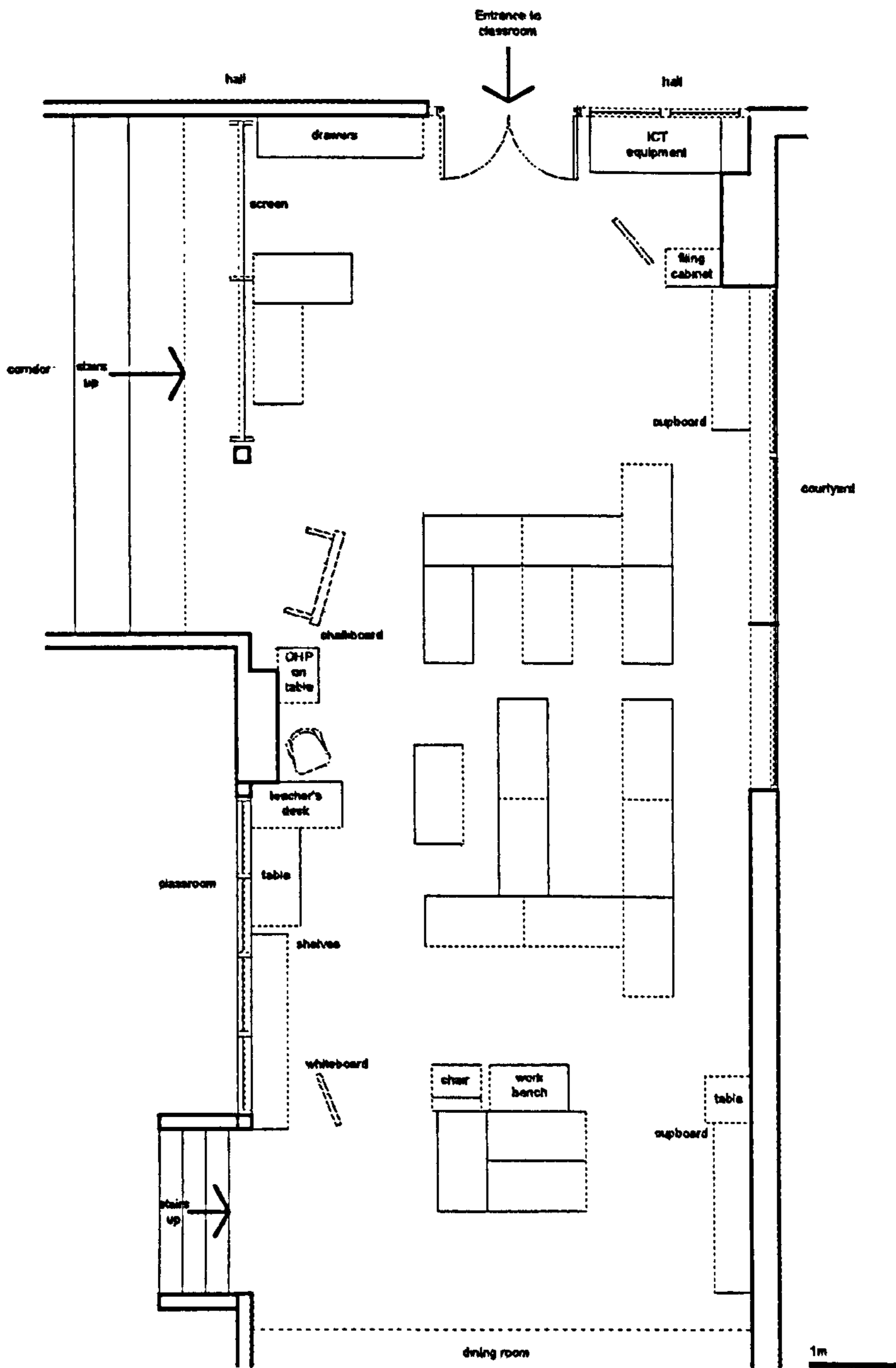
Classroom 10



Age of classroom: 1976

Area of classroom (m²): 47

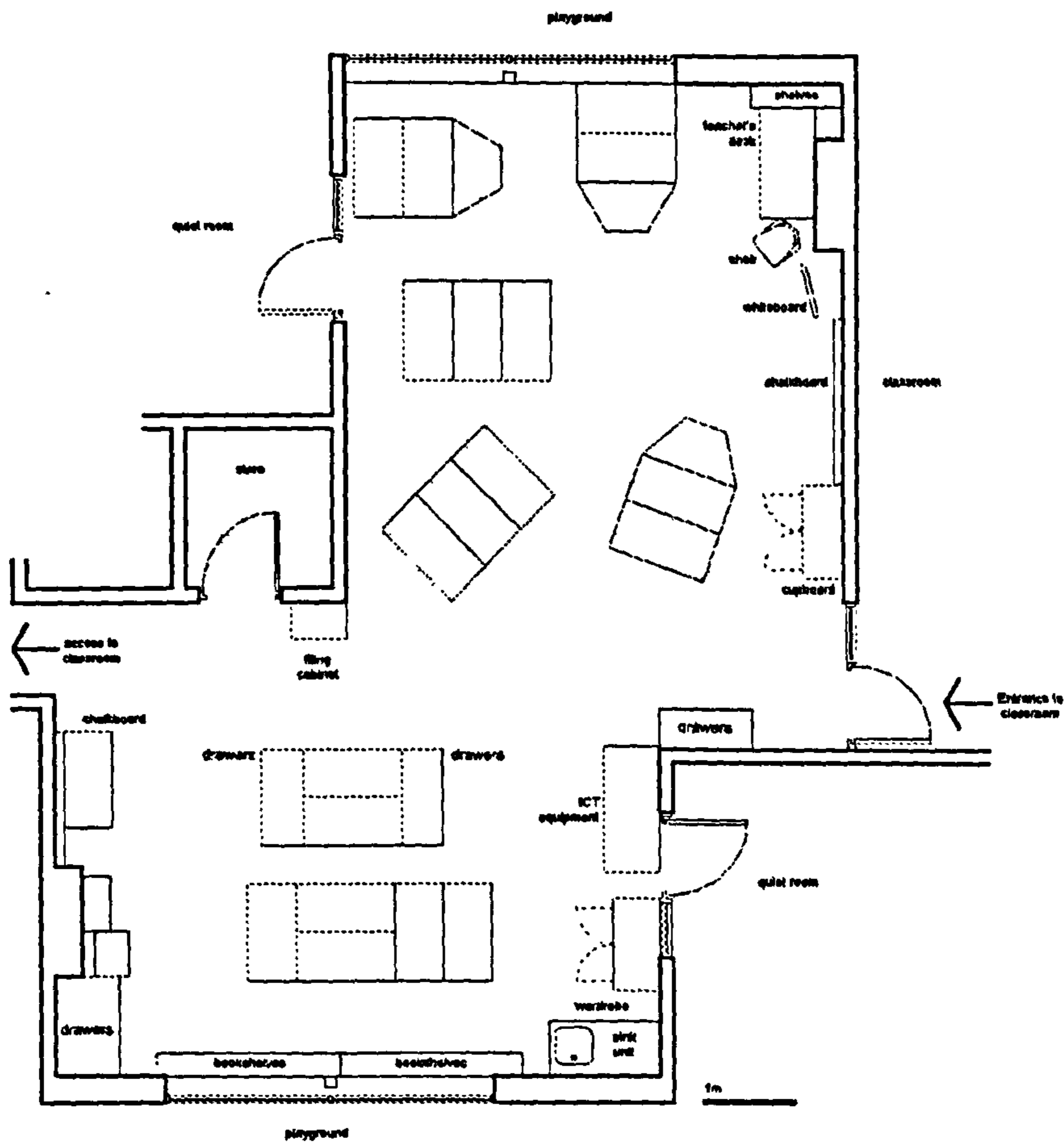
Classroom 11



Age of classroom: 1972

Area of classroom (m²): 70

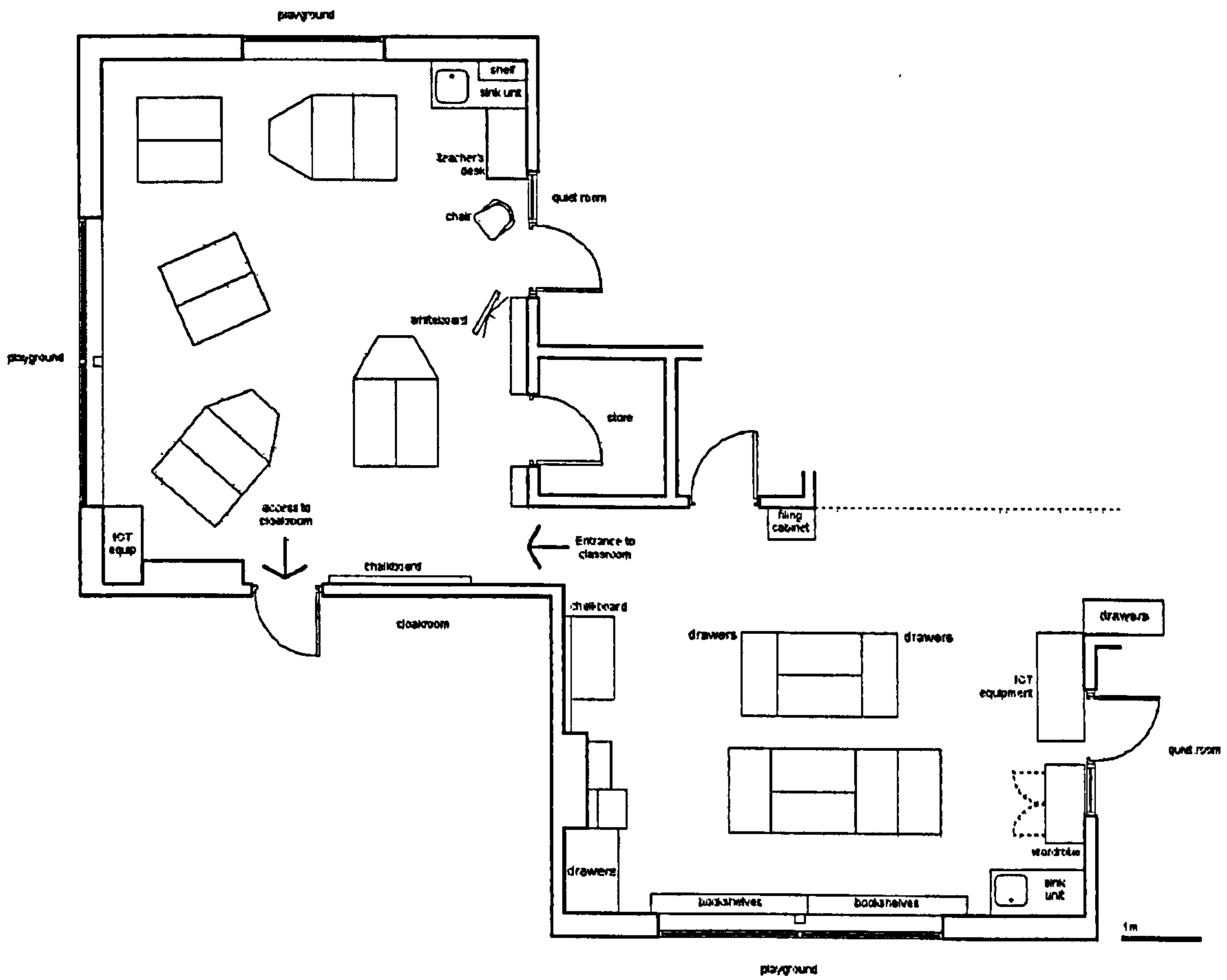
Classroom 12



Age of classroom: 1965

Area of classroom (m²); 39

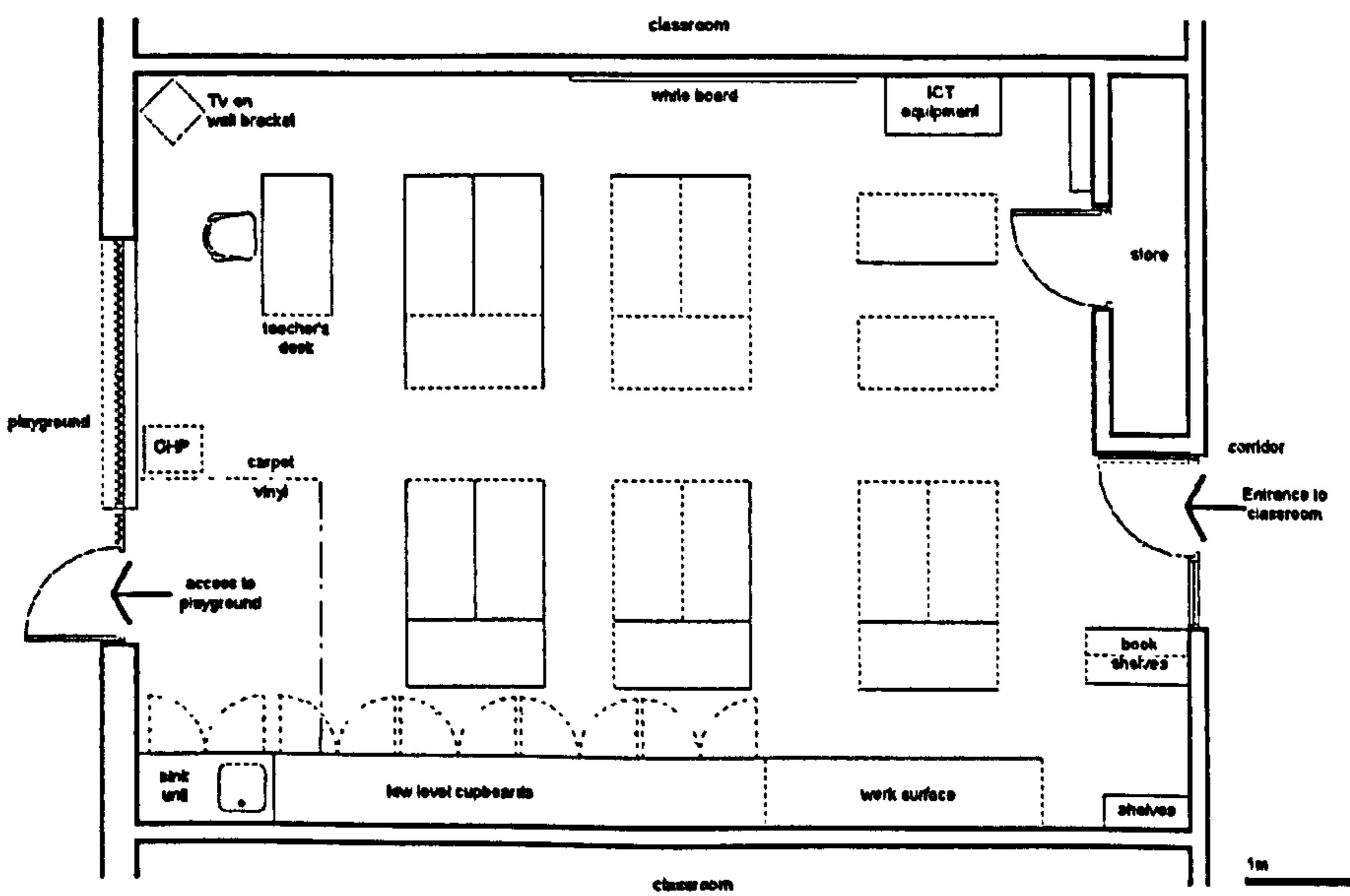
Classroom 13



Age of classroom: 1965

Area of classroom (m²): 36

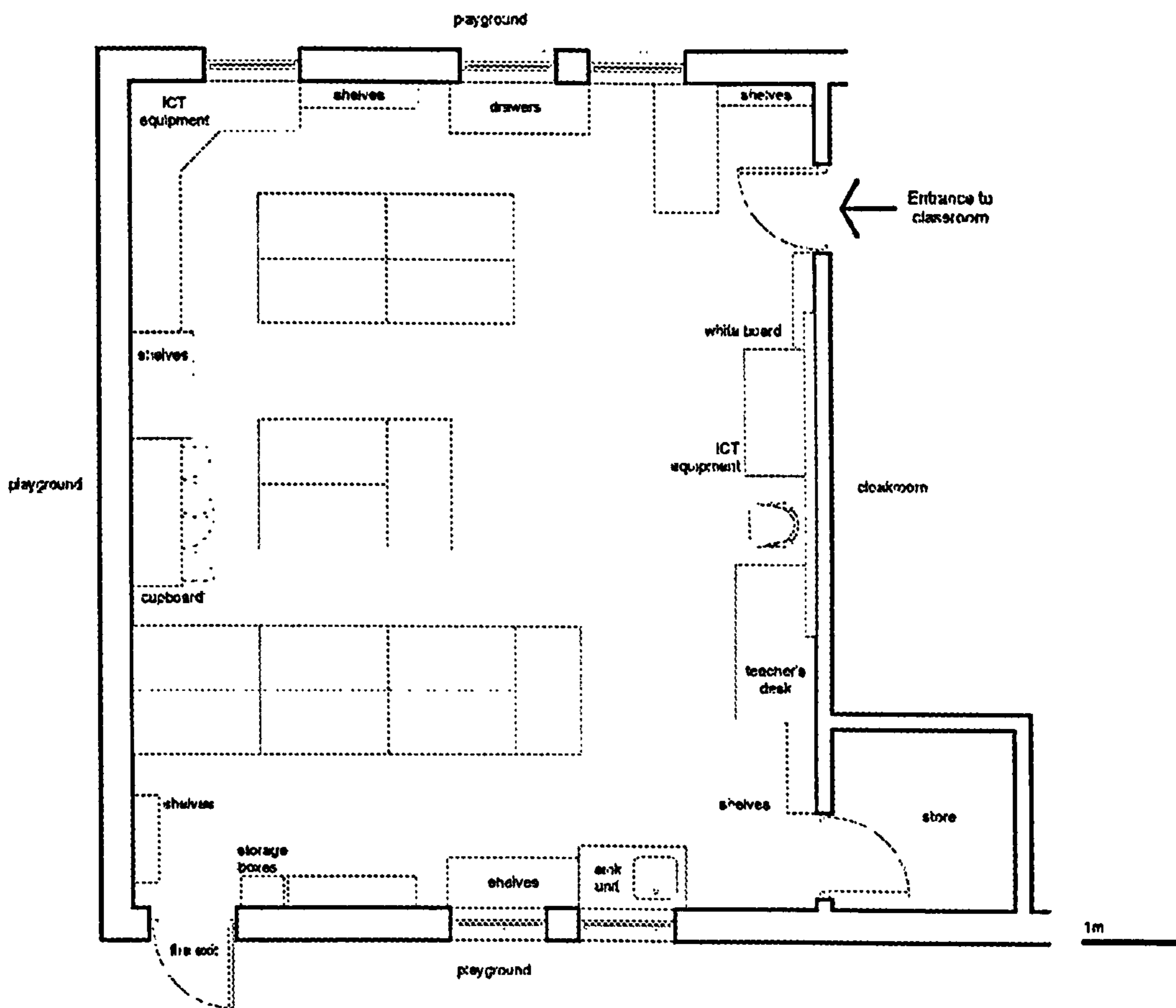
Classroom 14



Age of classroom: 2001

Area of classroom (m²): 57

Classroom 15



Age of classroom: 1984

Area of classroom (m²): 50

APPENDIX I: OBSERVATIONAL DATA FREQUENCY TABLES

Lesson Structures

Lesson	Classroom	Age	Area (M ²)	Layout	Year Group	No. Pupils	No. Teachers	No. S. Staff
L01	C01	Pre-1919	45	groups	Y3 (6, 7)	19	1	-
L02	C01	Pre-1919	45	groups	Y3 (6, 7)	19	1	1
L03	C01	Pre-1919	45	groups	Y3 (6, 7)	19	1	-
L04	C02	1932	44	combination	Y4 (7, 8)	29	1	2
L05	C02	1932	44	combination	Y4 (7, 8)	29	1	1
L06	C02	1932	44	combination	Y4 (7, 8)	29	1	2
L07	C03	1935	58	combination	Y3 (6, 7)	30	1	1
L08	C03	1935	58	combination	Y3 (6, 7)	30	1	1
L09	C03	1935	58	combination	Y3 (6, 7)	30	1	1
L10	C04	1946	50	groups	Y4 (7, 8)	29	1	-
L11	C04	1946	50	groups	Y4 (7, 8)	29	1	1
L12	C04	1946	50	groups	Y4 (7, 8)	29	1	-
L13	C05	1960	47	groups	Y6 (10, 11)	27	1	2
L14	C05	1960	47	groups	Y6 (10, 11)	27	1	2
L15	C06	1976	56	rows	Y5 (9, 10)	30	1	-
L16	C06	1976	56	rows	Y5 (9, 10)	30	1	-
L17	C06	1976	56	rows	Y5 (9, 10)	30	1	1
L18	C07	1976	57	groups	Y5 (9, 10)	30	1	-
L19	C07	1976	57	groups	Y5 (9, 10)	30	1	-
L20	C08	1976	42	combination	Y5 (9, 10)	30	1	1
L21	C08	1976	42	combination	Y5 (9, 10)	30	1	1
L22	C08	1976	42	combination	Y5 (9, 10)	30	1	1
L23	C09	1976	53	rows	Y6 (10, 11)	31	1	-
L24	C09	1976	53	rows	Y6 (10, 11)	31	1	-
L25	C09	1976	53	rows	Y6 (10, 11)	31	1	-
L26	C10	1976	47	rows	Y6 (10, 11)	31	1	-
L27	C10	1976	47	rows	Y6 (10, 11)	31	1	-
L28	C10	1976	47	rows	Y6 (10, 11)	31	1	-
L29	C11	1972	70	rows	Y5 (9, 10)	26	1	-
L30	C11	1972	70	rows	Y5 (9, 10)	26	1	-
L31	C11	1972	70	rows	Y5 (9, 10)	26	1	-
L32	C11	1972	70	rows	Y5 (9, 10)	26	1	-
L33	C12	1965	39	groups	Y3 (6, 7)	29	1	-
L34	C12	1965	39	groups	Y3 (6, 7)	29	1	-
L35	C13	1965	36	groups	Y3 (6, 7)	30	1	-
L36	C13	1965	36	groups	Y3 (6, 7)	30	1	-
L37	C13	1965	36	groups	Y3 (6, 7)	30	1	-
L38	C14	2001	57	groups	Y4 (7, 8)	34	1	1
L39	C14	2001	57	groups	Y4 (7, 8)	34	1	1
L40	C14	2001	57	groups	Y4 (7, 8)	34	1	1
L41	C14	2001	57	groups	Y4 (7, 8)	34	1	-
L42	C15	1984	50	groups	Y4 (7, 8)	32	1	-
L43	C15	1984	50	groups	Y4 (7, 8)	32	1	-
L44	C15	1984	50	groups	Y4 (7, 8)	32	1	-

APPENDIX I: OBSERVATIONAL DATA FREQUENCY TABLES

Lesson Structure

		DURATION (mins)
L01.	[ADM, 4] [INT, 2] [MTA, 18] [PLE, 2] [CON, 4]	30
L02.	[INT, 2] [MTA, 10] [TRA, 2] [MTA, 24] [PLE, 5] [CON, 2]	45
L03.	[ADM, 4] [INT, 8] [MTA, 30] [TRA, 2] [PLE, 10] [CON, 6]	60
L04.	[ADM, 10] [INT, 2] [MTA, 18] [TRA, 1] [MTA, 10] [TRA, 1] [MTA, 20] [PLE, 5] [CON, 3]	70
L05.	[INT, 1] [MTA, 27] [CON, 2]	30
L06.	[INT, 1] [MTA, 20] [PLE, 4] [TRA, 2] [MTA, 20] [CON, 1]	48
L07.	[ADM, 8] [INT, 4] [TRA, 1] [MTA, 28] [PLE, 5] [CON, 4]	50
L08.	[INT, 2] [MTA, 15] [TRA, 1] [MTA, 32] [TRA, 2] [INT, 1] [MTA, 15] [CON, 2]	70
L09.	[ADM, 2] [INT, 1] [MTA, 8] [TRA, 1] [MTA, 15] [CON, 3]	30
L10.	[ADM, 5] [INT, 1] [MTA, 8] [INT, 1] [MTA, 12] [TRA, 2] [MTA, 22] [TRA, 2] [MTA, 26] [CON, 3] [PLE, 8]	90
L11.	[INT, 3] [MTA, 10] [TRA, 2] [MTA, 32] [CON, 3] [PLE, 5]	55
L12.	[ADM, 4] [INT, 1] [MTA, 30] [PLE, 13] [CON, 5]	60
L13.	[ADM, 10] [OOR, 30] [INT, 3] [MTA, 47] [CON, 10]	70
L14.	[INT, 5] [MTA, 10] [TRA, 1] [MTA, 12] [TRA, 1] [MTA, 18] [TRA, 1] [MTA, 23] [CON, 4]	75
L15.	[ADM, 4] [INT, 6] [MTA, 35] [PLE, 10] [CON, 5]	60
L16.	[INT, 7] [MTA, 10] [TRA, 2] [MTA, 15] [TRA, 4] [MTA, 38] [PLE, 5] [CON, 5]	90
L17.	[INT, 5] [MTA, 18] [TRA, 3] [MTA, 34] [TRA, 1] [MTA, 15] [PLE, 10] [CON, 4]	90
L18.	[ADM, 10] [INT, 4] [MTA, 10] [TRA, 2] [MTA, 30] [CON, 4]	60
L19.	[ADM, 4] [INT, 15] [MTA, 20] [PLE, 8] [MTA, 20] [TRA, 3] [MTA, 20]	90
L20.	[ADM, 5] [INT, 4] [MTA, 37] [TRA, 4] [MTA, 15] [PLE, 5] [CON, 5]	75
L21.	[INT, 5] [MTA, 20] [TRA, 2] [MTA, 14] [TRA, 5] [MTA, 25] [CON, 4]	75
L22.	[INT, 5] [MTA, 20] [PLE, 5] [INT, 2] [MTA, 20] [TRA, 4] [MTA, 25] [PLE, 4] [CON, 5]	90
L23.	[INT, 4] [INT, 5] [MTA, 50] [TRA, 8] [INT, 6] [MTA, 31] [CON, 6]	100
L24.	[ADM, 3] [INT, 2] [MTA, 24] [TRA, 3] [MTA, 34] [PLE, 10] [CON, 5]	75
L25.	[INT, 5] [MTA, 23] [TRA, 4] [MTA, 42] [PLE, 11] [CON, 5]	90
L26.	[ADM, 6] [INT, 3] [MTA, 20] [TRA, 2] [MTA, 16] [TRA, 2] [MTA, 15] [PLE, 7] [CON, 4]	75
L27.	[INT, 4] [MTA, 25] [CON, 10] [TRA, 4] [MTA, 32] [CON, 5] [PLE, 10]	90
L28.	[ADM, 4] [INT, 3] [MTA, 17] [TRA, 6] [MTA, 24] [TRA, 6] [MTA, 30]	100
L29.	[ADM, 10] [INT, 5] [MTA, 25] [TRA, 6] [MTA, 21] [PLE, 12] [CON, 6]	85
L30.	[INT, 7] [MTA, 39] [PLE, 12] [CON, 5]	63
L31.	[ADM, 10] [INT, 15] [MTA, 18] [TRA, 4] [MTA, 33] [PLE, 12] [CON, 8]	100
L32.	[ADM, 4] [INT, 8] [MTA, 45] [CON, 8]	65
L33.	[INT, 3] [MTA, 22] [TRA, 3] [MTA, 31] [CON, 6]	65
L34.	[INT, 7] [MTA, 22] [TRA, 5] [MTA, 15] [CON, 6]	55
L35.	[INT, 6] [MTA, 21] [TRA, 3] [MTA, 21] [PLE, 10] [CON, 4]	65
L36.	[ADM, 2] [INT, 3] [MTA, 60] [PLE, 14] [CON, 5]	60
L37.	[INT, 7] [MTA, 39] [CON, 9]	55
L38.	[ADM, 8] [INT, 2] [MTA, 18] [TRA, 2] [MTA, 49] [CON, 6]	85
L39.	[INT, 2] [MTA, 15] [TRA, 3] [MTA, 25] [CON, 4] [PLE, 11]	60
L40.	[ADM, 3] [INT, 2] [MTA, 10] [TRA, 3] [MTA, 42] [CON, 5]	65
L41.	[INT, 10] [MTA, 18] [TRA, 5] [MTA, 25] [CON, 2]	60
L42.	[ADM, 5] [INT, 2] [MTA, 32] [TRA, 3] [MTA, 18] [TRA, 2] [PLE, 26] [CON, 2]	90
L43.	[INT, 3] [MTA, 22] [TRA, 2] [MTA, 21] [TRA, 4] [MTA, 18] [CON, 5]	75
L44.	[ADM, 3] [INT, 10] [MTA, 37] [CON, 10]	60

Categories

ADM; Administration

INT: Introduction

MTA: Main teaching activity

TRA: Transition

PLE: Plenary

CON: Concluding stage

OOR: Out of room

Frequency

Lesson Structure	Frequency	Percentage
Standard	12	27.3
Dual Teaching Activity	20	45.4
Multiple Teaching Activity	12	27.3
Total	44	100.0

APPENDIX I: OBSERVATIONAL DATA FREQUENCY TABLES

Lesson Structure Totals

Lesson	Classroom	Duration mins.	LS1 %	LS2 %	LS3 %	LS4 %	LS5 %	LS6 %
L01	C01	30	13.3	6.7	60.0	-	6.7	13.3
L02	C01	45	-	4.5	75.6	4.5	11.1	4.5
L03	C01	60	6.7	13.3	50.0	33.3	16.7	10.0
L04	C02	70	14.3	2.9	68.6	2.9	7.1	4.3
L05	C02	30	-	3.3	90.0	-	-	6.7
L06	C02	48	-	2.0	83.3	4.2	8.3	2.0
L07	C03	50	16.0	8.0	56.0	2.0	10.0	8
L08	C03	70	-	4.3	85.7	4.3	-	2.8
L09	C03	30	6.7	3.3	76.7	3.3	-	10
L10	C04	90	5.5	1.1	75.6	5.6	8.9	3.3
L11	C04	55	-	5.5	76.4	3.6	9.0	5.5
L12	C04	60	6.7	13.3	50.0	-	21.6	8.3
L13	C05	100	10.0	3.0	77	-	-	10.0
L14	C05	75	-	6.7	84.0	4.0	-	5.3
L15	C06	60	6.7	10.0	58.3	-	16.7	8.3
L16	C06	90	-	7.8	70	6.7	5.5	5.5
L17	C06	90	-	5.6	76.7	2.2	11.1	4.4
L18	C07	60	16.7	6.7	66.7	3.3	-	6.7
L19	C07	90	4.4	16.7	66.7	3.3	8.8	-
L20	C08	75	6.7	5.3	69.3	5.3	6.7	6.7
L21	C08	75	-	6.7	78.7	9.3	-	5.3
L22	C08	90	-	7.8	72.2	4.4	10.0	5.6
L23	C09	100	-	15.0	81.0	8.0	-	6.0
L24	C09	75	4.0	2.7	69.3	4.0	13.3	6.7
L25	C09	90	-	5.6	72.2	4.4	12.2	5.6
L26	C10	75	8.0	4.0	68.0	5.3	9.3	5.3
L27	C10	90	-	4.4	63.3	3.3	11.1	16.7
L28	C10	100	4.0	3.0	72.0	12.0	-	-
L29	C11	85	11.8	5.9	54.1	7.1	14.1	7.1
L30	C11	63	-	11.1	61.9	-	19.0	7.9
L31	C11	100	10.0	15.0	51.0	4.0	12.0	8.0
L32	C11	65	6.2	12.3	69.2	-	-	12.3
L33	C12	65	-	4.6	81.5	4.6	-	9.2
L34	C12	55	-	12.7	67.3	9.1	-	10.9
L35	C13	65	-	9.2	64.6	4.6	15.4	6.2
L36	C13	60	3.3	5.0	60.0	-	25.3	8.3
L37	C13	55	-	12.7	70.9	-	-	16.4
L38	C14	85	5.9	2.4	78.8	2.4	-	7.1
L39	C14	60	-	3.3	66.7	5.0	18.3	6.7
L40	C14	65	4.6	3.1	80.0	4.6	-	7.7
L41	C14	60	-	16.7	71.7	8.3	-	3.3
L42	C15	90	5.6	2.2	55.6	5.6	28.9	5.6
L43	C15	75	-	4.0	83.3	8.0	-	6.7
L44	C15	60	5.0	16.7	61.7	-	-	16.7

Categories	Range (%)	Mean (%)
1. Administration	3.3-16.7 (13.4)	3.4
2. Introduction	2.0-16.7 (14.7)	7.2
3. Main Teaching Activity	50.0-85.7 (35.7)	67.9
4. Transition	2.4-12.0 (9.6)	6.0
5. Plenary	5.5-25.3 (19.8)	13.0
6. Concluding stage	2.8-16.7 (13.9)	10.0

APPENDIX I: OBSERVATIONAL DATA FREQUENCY TABLES

Teacher Activity

Lesson	Classroom	Duration mins.	TA1 %	TA2 %	TA3 %
L01	C01	30	66.6	33.3	-
L02	C01	45	91.1	8.9	-
L03	C01	60	71.7	20.0	8.3
L04	C02	70	64.3	35.7	-
L05	C02	30	66.6	-	33.3
L06	C02	48	93.8	6.3	-
L07	C03	50	74.0	26.0	-
L08	C03	70	92.8	7.2	-
L09	C03	30	80.0	20.0	-
L10	C04	90	76.7	23.3	-
L11	C04	55	90.9	9.0	-
L12	C04	60	85.0	15.0	-
L13	C05	100	47.0	53.0	-
L14	C05	75	77.3	9.3	13.7
L15	C06	60	85.0	15.0	-
L16	C06	90	87.8	12.2	-
L17	C06	90	90.0	10.0	-
L18	C07	60	90.0	10.0	-
L19	C07	90	70.0	40.0	-
L20	C08	75	88.8	12.0	-
L21	C08	75	85.3	14.6	-
L22	C08	90	90.0	10.0	-
L23	C09	100	88.0	8.0	4.0
L24	C09	75	85.3	14.6	-
L25	C09	90	90.0	10.0	-
L26	C10	75	81.3	18.7	-
L27	C10	90	90.0	10.0	-
L28	C10	100	78.0	12.0	-
L29	C11	85	68.2	31.8	-
L30	C11	63	81.0	19.0	-
L31	C11	100	78.0	12.0	-
L32	C11	65	64.6	35.4	-
L33	C12	65	86.2	13.8	-
L34	C12	55	80.0	20.0	-
L35	C13	65	89.2	10.8	-
L36	C13	60	91.7	8.3	-
L37	C13	55	83.6	16.4	-
L38	C14	85	69.4	30.6	-
L39	C14	60	88.3	11.7	-
L40	C14	65	83.1	16.9	-
L41	C14	60	88.3	11.7	-
L42	C15	90	86.7	13.3	-
L43	C15	75	85.3	14.7	-
L44	C15	60	78.3	21.7	-

Categories	Range (%)	Mean(%)
1. Teaching	66.6-93.8 (27.2)	80.2
2. Managing	7.2-53.0 (45.8)	17.5
3. Unrelated	4.0-33.3 (29.3)	14.8

APPENDIX I: OBSERVATIONAL DATA FREQUENCY TABLES

Pupil Activity

Lesson	Classroom	Duration mins.	PA1 %	PA2 %	PA3 %	PA4 %	PA5 %
L01	C01	30	73.3	13.3	-	-	13.3
L02	C01	45	91.1	8.9	-	-	-
L03	C01	60	80.0	13.3	-	-	6.7
L04	C02	70	78.6	7.1	-	-	14.3
L05	C02	30	93.3	6.7	-	-	-
L06	C02	48	93.8	6.3	-	-	-
L07	C03	50	74.0	26.0	-	-	-
L08	C03	70	92.8	7.2	-	-	-
L09	C03	30	80.0	13.3	-	-	6.7
L10	C04	90	91.1	8.9	-	-	-
L11	C04	55	90.9	9.0	-	-	-
L12	C04	60	91.7	5.0	-	3.5	-
L13	C05	100	60.0	10.0	-	-	30
L14	C05	75	90.7	9.3	-	-	-
L15	C06	60	91.7	8.3	-	-	-
L16	C06	90	87.8	12.2	-	-	-
L17	C06	90	90.0	10.0	-	-	-
L18	C07	60	90.0	10.0	-	-	-
L19	C07	90	92.2	7.8	-	-	-
L20	C08	75	81.3	12.0	-	-	6.7
L21	C08	75	85.3	14.6	-	-	-
L22	C08	90	90.0	10.0	-	-	-
L23	C09	100	79.0	12.0	-	4.0	5.0
L24	C09	75	85.3	10.7	-	-	4.0
L25	C09	90	90.0	10.0	-	-	-
L26	C10	75	81.3	10.6	-	-	8.0
L27	C10	90	90.0	10.0	-	-	-
L28	C10	100	78.0	8.0	-	-	4.0
L29	C11	85	74.1	14.1	-	-	11.8
L30	C11	63	92.1	7.9	-	-	-
L31	C11	100	78.0	12.0	-	-	-
L32	C11	65	81.5	12.3	-	-	6.2
L33	C12	65	86.2	13.8	-	-	-
L34	C12	55	80.0	20.0	-	-	-
L35	C13	65	89.2	10.8	-	-	-
L36	C13	60	88.3	8.3	-	-	3.3
L37	C13	55	83.6	16.4	-	-	-
L38	C14	85	90.6	9.4	-	-	5.9
L39	C14	60	88.3	11.7	-	-	-
L40	C14	65	83.1	12.3	-	-	4.6
L41	C14	60	88.3	11.7	-	-	-
L42	C15	90	86.7	7.7	-	-	5.6
L43	C15	75	85.3	14.7	-	-	-
L44	C15	60	78.3	16.7	-	-	5.0

Categories	Range(%)	Mean (%)
1. Engaged on task	60.0-92.1 (32.1)	85.2
2. Task related	5.0-20.0 (15.0)	11.1
3. Distracted	--	--
4. Waiting	3.5-4.0 (0.5)	3.75
5. Other	3.3-30.0 (26.7)	8.3

APPENDIX I: OBSERVATIONAL DATA FREQUENCY TABLES

Class Organisation

Lesson	Classroom	Duration mins.	CO1 %	CO2 %	CO3 %	CO4 %	CO5 %
L01	C01	30	100.0	-	-	-	-
L02	C01	45	100.0	-	-	-	-
L03	C01	60	50.0	-	-	50.0	-
L04	C02	70	57.1	-	-	42.9	-
L05	C02	30	10.0	-	-	90.0	-
L06	C02	48	16.7	-	-	83.3	-
L07	C03	50	36.0	-	-	64.0	-
L08	C03	70	54.3	-	-	45.7	-
L09	C03	30	50.0	-	-	50.0	-
L10	C04	90	48.9	-	-	51.1	-
L11	C04	55	41.8	-	-	58.2	-
L12	C04	60	50.0	-	-	50.0	-
L13	C05	100	23.0	47.0	-	-	30.0
L14	C05	75	53.3	-	46.7	-	-
L15	C06	60	41.7	-	-	58.3	-
L16	C06	90	57.8	-	-	42.2	-
L17	C06	90	45.6	-	-	54.4	-
L18	C07	60	50.0	-	-	50.0	-
L19	C07	90	55.6	-	-	44.4	-
L20	C08	75	50.6	-	-	49.3	-
L21	C08	75	54.6	-	-	18.7	26.7
L22	C08	90	50.0	-	-	50.0	-
L23	C09	100	69.0	-	-	31.0	-
L24	C09	75	54.7	-	-	45.3	-
L25	C09	90	53.3	-	-	46.6	-
L26	C10	75	78.7	-	-	21.3	-
L27	C10	90	64.4	-	35.5	-	-
L28	C10	100	73.0	-	-	17.0	-
L29	C11	85	75.3	-	-	24.7	-
L30	C11	63	38.1	-	-	61.9	-
L31	C11	100	67.0	-	-	33.0	-
L32	C11	65	30.8	69.2	-	-	-
L33	C12	65	52.3	-	-	47.6	-
L34	C12	55	60.0	-	-	40.0	-
L35	C13	65	67.7	-	32.3	-	-
L36	C13	60	100.0	-	-	-	-
L37	C13	55	29.1	70.9	-	-	-
L38	C14	85	78.8	-	-	21.2	-
L39	C14	60	58.3	-	-	41.7	-
L40	C14	65	35.4	-	-	64.6	-
L41	C14	60	78.3	-	-	30.0	-
L42	C15	90	80.0	-	-	20.0	-
L43	C15	75	72.0	-	-	28.0	-
L44	C15	60	38.3	61.7	-	-	-

Categories	Range (%)	Mean (%)
1. Whole class	10.0-100.0 (90.0)	55.7
2. Groups	47.0-70.9 (23.9)	62.2
3. Paired	32.3-46.7 (14.4)	38.1
4. Individual	17.0-90.0 (73.0)	44.9
5. Out of the room	26.7-30.0 (3.3)	28.4

APPENDIX I: OBSERVATIONAL DATA FREQUENCY TABLES

Observer's Impressions

Classroom	A	B	C	D	E
C01	4	4	2	4	3
C02	2	2	3	3	3
C03	4	3	3	3	3
C04	2	3	3	3	1
C05	1	2	2	2	3
C06	2	2	1	4	3
C07	3	2	3	4	2
C08	3	3	2	4	3
C09	3	2	2	4	3
C10	2	3	2	2	3
C11	4	3	2	3	3
C12	2	2	2	2	3
C13	1	2	3	2	2
C14	4	3	4	3	3
C15	4	4	4	3	3

Teachers' Impressions

Classroom	A	B	C	D	E
C01	5	4	3	3	3
C02	2	2	2	2	2
C03	4	4	3	3	3
C04	2	2	3	3	2
C05	1	2	3	2	2
C06	2	1	1	4	3
C07	3	2	2	4	2
C08	2	3	2	4	2
C09	3	2	2	3	3
C10	3	3	3	3	3
C11	4	2	2	4	3
C12	2	1	2	3	3
C13	1	1	2	3	2
C14	4	2	4	3	2
C15	4	3	2	2	3

Categories

- A. Size
- B. Organisation and layout
- C. Acoustics
- D. Lighting
- E. Temperature and ventilation

Ratings

1. Very Poor 2. Poor 3. Satisfactory 4. Good 5. Very Good

APPENDIX I: OBSERVATIONAL DATA FREQUENCY TABLES

Q6. Does the way you teach or the subject matter you teach require any special features within the classroom?

Q7. What do you think about the classroom environment? Do you think the layout and organisation of the classroom interferes with the way you teach and if so, how?

Q8. What would you change about your classroom to have a more effective teaching/learning environment?

C01. The floor space near my desk is used a lot by the whole-class and the sink and art area in the opposite corner of the room is another important resource for art and science activities, but this may have to reduce in size if the class gets bigger. The classroom is large enough, but there are only 19 children in the class. More children will make it more crowded. In the winter there is inadequate heating and there is insufficient ventilation in summer, the blinds are inadequate on sunny days. Sometimes noise from the hall and the playground can be disruptive to the pupils, especially when they are setting up of dinner tables and cleaning away. I would like to develop learning areas within the classroom, like the art area and reading and literacy corner where children could work independently and area for plants.

C02. The shared workspace is used a lot by the classroom assistants who working there with numeracy and literacy booster groups all the time. The classroom has many physical restraints, poor lighting, have to have the lights on all year round due to the limited windows, not enough plug sockets, to little space to rearrange the furniture. There is a lack of space and not enough power points to integrated technology properly within the classroom. More storage is required and I would like a cupboard to put teacher's resources in away from children.

C03. Yes, the carpet area at the front of the classroom is used a lot to gather all the children together for whole-class activities. Size of the classroom makes moving and rearranging the furniture very limiting and there is no access to outdoor area. A slightly bigger classroom would be nice, and specific spaces within the schools so resources could be grouped, and the whole or half the class could be taken there to work.

C04. Yes, an area or floor area so that the children could be seated as a class. But the classroom is too small to accommodate this and quiet room is too small. Resourcing all the classrooms would difficult and some resources may be better grouped in other locations in the school. A balance needs to be met between specialist spaces and classroom activities. It is important to have variety of spaces within a school that complement the classrooms. I think we definitely need a separate ICT area. This classroom also has very poor ventilation , the new double glazed windows cannot be opened fully and it can get very hot in summer.

C05. Lots of things are needed, but the classroom is too small to fit them in. It would be better if we did not have tables on the carpet area, but at present we take groups of children to the library. The limited space means having to pack away some curriculum activities to accommodate others. There is a lack of space and

APPENDIX I: OBSERVATIONAL DATA FREQUENCY TABLES

the classroom is too cold in winter, too warm in summer. Blinds on the windows are inadequate. Have very thin adjoining wall to next classroom and therefore acoustics are very bad. An area for 2 or 3 computers, and space for children to sit around them comfortably would be ideal. Could also create better learning areas within the classroom, areas for art/ wet and dry area etc. however the restrictive size of the classroom makes this impractical.

C06. Three of the classrooms share one quiet room, this is not ideal and it would be better if I could provide a space for grouping the class, there can be lots of noise from other classrooms or children passing through this one and separating them would seem a good idea. There is also lack of storage space and a lack of display space, especially as one side of the classroom has windows along its entire length. Also a quieter area for the children to relax and work individually. I would like a much bigger space, light and airy and furniture to be the right size for the children.

C07. I am lucky that this classroom is next to the quiet room, so it easy to access at any point during the lesson without disturbing any other the other classes. In the classroom there are a lack of accessibility of resources and materials for children to encourage independent learning activities. I have more and more electrical equipment, but not the power points to plug them in. the class gets disturbed easily by things going in on in other classrooms.

C08. The classroom is tight and I have to use another classrooms quiet space. Separating this classroom from the other would be beneficial to reduce disturbance. It would be great to develop some curriculum areas such as reading bay or art space. There is very limited child accessible storage. I have the lights on most of the time. Sufficient power points to use all the electrical equipment are also needed.

C09. The size of the classroom is ok, but desks are always in rows to avoid children being distracted by what is going on in the other class. Separating the two classrooms would improve this. Furniture old and tatty not really that useful, it would be nice to simply re-arrange and decorate the classroom and provide some ICT facilities within the classroom.

C10. Display space in classroom not at child height so little interactive display space. Also would be good to reduce the noise from other classrooms, as this is a big distraction. The room is big enough and we do have large free area between this and the other classroom, which the classes use together sometimes for whole-class activities.

APPENDIX I: OBSERVATIONAL DATA FREQUENCY TABLES

C11. This classroom is a converted dining hall, and although it looks big there is a basic lack of space, particularly space for storage. Other classes have to pass through this space, it feels a bit like working in a corridor. Better access to an ICT area within the classroom is needed and I would like to introduce a quiet area where children can work independently.

C12. It is not easy to adapt the room because of its size. This classroom is small and in my view will only accommodate limited changes, if any. The classroom is too small to accommodate all the curriculum areas. I want for example, computers in small corner. Lack of natural lighting in the classroom always dull, artificial lights have to be on all the time. A walk in storage cupboard in the classroom would be ideal. Need slightly freer floor space for movement. Make sure there is maximum natural light entering the classroom.

C13. The classroom is not big enough to accommodate all the areas needed, and storage is very limited. The shared area is not utilised to its maximum capacity to avoid disturbing the other class. Carpet area is too small for the whole-class, and the display boards are badly placed. A larger carpet area and computers that work would be better. Bookshelves, pupil draws, and teacher storage. Would like an opener environment to allow easier movement.

C14. The classroom is one of the biggest I have ever worked in and generally I am satisfied with it as an environment. But I would like to develop various areas of the classroom with displays and resources that the children can interact with. There is one problem with noise and it is not from the children but from the rain on the roof, this is very noisy.

C15. I have too many resources and not enough storage space. Difficult for hands on activities and science experiments. I think that some activities cannot be supported properly in the classroom and it would be better to have other spaces for drama, ICT and arts and crafts. We need as many practical areas as possible, without losing classroom any space. Need more shelves / cupboards, art storage area.

APPENDIX I: OBSERVATIONAL DATA FREQUENCY TABLES

Coding Respondent	A	B	C	D	E
C01	1	-	2	2	2
C02	2	-	-	2	-
C03	-	2	-	-	-
C04	2	-	-	2	-
C05	2	2	-	2	-
C06	-	2	2	-	-
C07	-	1+2	-	-	-
C08	-	2	-	2	-
C09	1	2	-	-	-
C10	1	1+2	2	-	-
C11	1	2	-	-	-
C12	2	2	-	2	-
C13	2	2	-	-	-
C14	1	-	2	-	-
C15	2	2	-	-	-

Categories

A. Size

B. Organisation and layout

C. Acoustics

D. Lighting

E. Temperature and ventilation

Positive response **1**

Negative response **2**

Frequency of coding

Size		Organisation + layout		Acoustics		Lighting		Temperature + vent.	
Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.
6	5	12	2	4	-	4	-	3	-

The first year of my research involved developing my understanding of educational environments whilst undertaking a research training programme which provided a detailed introduction to methods of research specific to the architectural field. At the end of this period a proposal for my research was submitted. The next step involved developing the research instruments that was carried about through a number of pilot studies. The second year involved the collection of data, initially using The Classroom Survey Questionnaires and then through the Classroom Observations and Teacher Interviews. The analysis of the data collected was undertaken in parallel and continued early into the third year of research.

During this three year period I was involved in various other project, including at the end of the first year the Sheffield's Classroom of the Future Projects. This involved various consultations with teachers and pupils for pilot projects being constructed in two primary schools, a secondary school and a primary special school.

In the second year I compiled details of various school projects and visited numerous examples of European educational buildings. This has led to an appreciation of specific design features through an understanding and appraisal of their strengths and weaknesses. In this period I attended various conferences and talks relating to the built environment and school design and worked on a part-time basis for various architects

Early in the third year and whilst assessing the data collected using the research instruments I had the opportunity to be involved in the development of a Private Finance Initiative. This project involved preparing appraisals and outline proposals to establish the criteria for the re-building of eight schools for the London Borough of Lewisham. The approach was based on in depth analysis of user needs, combining theoretical and practical expertise with detailed consultation.

My research and these activities have increased my desire to develop my architectural competency whilst promoting the integration and exchange of ideas between teachers, pupils and architects to create school buildings of which everyone can be proud.