Self-efficacy and the development of undergraduates' employability: An approach for a Bahraini public higher education institution

Ema A. Jalil Janahi

Thesis submitted in partial fulfilment of the requirements for the degree of Doctorate in Education

The University of Sheffield

Faculty of Education

School of Education

September 2023

Self-efficacy and the development of undergraduates' employability: An approach for a Bahraini public higher education institution

Ema A. Jalil Janahi

Thesis submitted in partial fulfilment of the requirements for the degree of Doctorate in Education

School of Education

September 2023

Abstract

The Bahraini higher education sector was directed to contribute to the national economic growth by preparing work-ready graduates for the labour market. In 2008, Bahrain Polytechnic was established as one of the educational reform initiatives with a mission to develop graduates' employability and enterprise skills. This study explores the role of Bahrain Polytechnic in meeting its mission from the perspectives of the undergraduate students and staff members. It focuses on their perceptions of the institutional employability-based measures and if those influenced the students' sense of self-efficacy. Yorke and Knight (2004a) and Pool and Sewell (2007) employability models as well as Bandura's sources of self-efficacy (1994) were referred to for the study's theoretical base. A mixed methods approach was applied to obtain data from 103 final year students regarding the scope of the study through a survey, followed by semi-structured interviews for 8 final-year students and 10 staff members.

The initial quantitative result showed most of the students had an average sense of self-efficacy toward their employability skills. It also showed that the curricular measures had high impact on the development of students' employability, while the co-curricular measures influenced only those who utilised the services and participated in the co-curricular activities. The in-depth qualitative results supported the institutional developmental role in preparing the graduates for the market, the development of students' employability skills, the implementation of measures that enhances students' employability and influences their sense of self-efficacy, and that there are elements influencing the development of students' sense of self-efficacy toward their employability skills.

The study contributes to acknowledging the importance of providing an operational approach to embed measures that enhance students' sense of self-efficacy to develop their employability skills. It also acknowledges the emerged self-related concepts other than self-efficacy which are self-awareness and self-confidence in an employability framework. It emphasises the importance of self-efficacy-enhancing elements. Finally, on an institutional level, it contributes to policy and practice by recognizing a mechanism to classify the curricular and co-curricular measures as per Bandura's four sources of self-efficacy and on a national level for other higher education institutions in Bahrain.

Dedication

To Balqees Fikri, to my mom, the unconventional educator of her time. To the dreamer who taught me to become one myself. Thank you for being you. Your values and your passion for education inspired me to become the person I am today.

To my beloved children, Yousif, Mohamed, and Tariq who provided me with their sentimental support, wisdom, and love throughout tough life-occurring events. Thank you for your unconditional love and care.

Acknowledgements

Firstly, I would like to thank the participants, including the students and the staff members for agreeing to take part in this study. I thank them for their time, their sincerity, and support throughout the study.

I would also like to extend my deepest appreciation to my supervisors, Dr. Anna Weighall and Dr. Vassiliki Papatsiba for their continuous support. I am thankful to have had the opportunity to learn from them. Their guidance helped me to stream my thoughts and articulate my ideas in a comprehendible and useful format.

My gratitude also extends to my colleagues who I have worked with throughout my career journey during my studies, Dr. Oonagh McGirr, Dr. Brian Benson, Dr. Rogelio Levardo Jr., Mr. Davin Scampton, Mr. Abbas Hamza, Sh Ali Al Khalifa, and Dr. Mohamed Al-Aseeri. Each had a significant impact in easing my Doctorate voyage and helped me to experience it as a developmental process rather than a struggle.

My deepest gratitude goes to my best friends ever, Zahra, Hanin, Naseem and Leena for their generous and nonstop care, without which this would never have been completed.

Finally, a sincere thanks goes to my husband Jasim for keeping my comfort and peace of mind as his top priorities.

Table of Contents

Abstract 3

Dedication 5

Acknowledgements 6

Table of Contents 7

List of Tables 13

List of Figures 15

List of Appendices 15

Chapter One: Introduction 17

1.1 Bahrain 20

1.2 Higher Education in Bahrain 21

1.3 The Role of Modern Higher Education Institutions 23

1.4 Concepts of Focus 28

1.4.1. Employability 28

1.4.2. Self-efficacy 30

1.5 Embedding Employability at Higher Education Institutions 32

1.6 Employability in Bahrain 33

1.7 Bahrain Polytechnic 35

Chapter Two: Literature Review 41

2.1 Aim of the Review 41

2.2 Questions of the Review 43

2.3 Definition of Employability 44

2.4 Employability and Higher Education 51

2.4.1 Curricular Approach 52

2.4.2 Co-curricular Approach 55

2.5 Employability Agenda Consequence 57

2.6 Employability Models and Self-efficacy 59

2.7 Self-efficacy and Bandura 70

2.8 Self-efficacy from the Perspective of other Researchers 76

2.9 Bandura's Sources of Self-efficacy 80

2.9.1. Performance Accomplishment 81

2.9.2. Vicarious Experience 84

2.9.3. Verbal Persuasion 86

2.9.4. Psychological and Emotional Status 87

2.10 Literature Review Findings 88

2.11 Aim of the Study 91

Chapter Three: Methodology, Design, and Procedure 93

3.1 Overview 93

3.2. Research Philosophical Stance 94

3.3 Research Methodology 99

3.3.1 Mixed-Methods Approach 103

3.3.2 Explanatory Sequential Design 106

3.4 Research Design 107

3.4.1 Setting 108

3.4.2 Population and Sample 109

3.4.3 Sample Size 111

3.4.4 Methods 114

3.5 Ethical Considerations 124

3.5.1 Protection of the Participants 125

3.5.2 Data Confidentiality 126

3.6 The Procedure 127

3.6.1 Sampling Method 127

3.6.2 Recruitment of Participants 128

3.6.3 Conducting the Interviews 130

3.6.4 Interviews Data Analysis 131

3.7 Validity, Reliability, and Trustworthiness 134

Chapter Four: Quantitative Findings 139

4.1. Overview 139

4.2 Data Analysis 140

4.2.1. Overall perceived Self-efficacy of Employability Skills 140

4.2.2 Perceived Self-efficacy of Each Employability skills 141

4.2.3 The Impact of the Institutional Measures 144

4.2.4 Summary 149

Chapter Five: Qualitative Findings 151

5.1 Participants Data 151

5.2 Thematic Analysis Process 153

5.3 Students Codes 154

5.4 Students' Themes 157

5.5. Students' Findings 157

5.5.1 The Developmental Role of the Institution in Preparing the Graduates for the Market 158

5.5.2 The Development of Students' Employability skills 159

5.5.3 The implementation of Measures that Enhances Students' Employability and Influences their Sense of Self-efficacy 164

5.5.4 The Elements Influencing the Development of Students' Sense of Self-efficacy Towards their Employability Skills 173

5.5.5 The Perceived Self-Related Concepts beyond Self-efficacy 178

5.5.6 The Absence of a Comprehensive Mechanism to Develop Students' Sense of Self-Efficacy 180

5.6 Staff Interviews 183

5.7 Staff Codes 183

5.8 Thematic Analysis Process 184

5.8.1 The Institution's Developmental Role in Preparing the Graduates for the Market 184

5.8.2 The Implementation of Measures that Enhances students' Employability and Influences their Sense of Self-efficacy 186

5.8.3 The Absence of a Comprehensive Mechanism to Develop Students' Sense of Self-efficacy .. 192

5.9 Summary 194

Chapter Six: Discussion 197

6.1. Introduction 197

6.2 Summary of Findings 199

6.3 Contribution to Knowledge 201

6.3.1 Students' Self-efficacy Development Approach 202

6.3.2 Self-Related Concepts 207

6.3.3 Self-efficacy Enhancing Elements 208

6.4 Geographical and Methodological Contribution 216

6.5 Contributions to Policy and Practice 217

6.5.1 Institutional Policy and Practice 217

6.5.2 Sources of Self-efficacy and Curricular Support 219

6.5.3 Sources of Self-efficacy and Co-curricular Support 226

6.5.4 An Institutional Employability Framework Recognizes Self-efficacy 232

6.6 National Policy and Practice Contribution 239

6.7 Strengths and Limitations 240

6.7.1 Strengths 240

6.7.2 Limitations 242

6.7.3 Reflection 243

6.8 Summary 246

Chapter Seven: Conclusion and Recommendations 248

7.1. Conclusion 248

7.2 Recommendations 251

7.2.1 Institutional Recommendations 251

7.2.2 National Recommendations 255

7.2.3 Recommendations for Future Studies 256

References 257

Appendices 285

List of Tables

Table Number	Description	Page Number
1	Demographic data of the students who participated in filling out the survey	110
2	Reliability of the overall ESSES tool, the four domains, and sub-domains	135
3	Reliability of the overall items related to the perceived impact of the curriculum on students' employability skills	136
4	Reliability of the overall items related to the perceived impact of services and participation in activities on students' employability skills	137
5	Students perceived self-efficacy of the four employability skills' domains	140
6	Perceived self-efficacy in the communication overall skills and subdomains	142
7	Perceived self-efficacy in the analytical overall skills and subdomains	143
8	Perceived self-efficacy in the collaboration overall skills and subdomains	143
9	Perceived self-efficacy in the professionalism overall skills and subdomains	144
10	Perceived impact of curricular measures on students' employability skills	145
11	Mean of curricular measures' impact on the students' employability skills	146
12	Utilisation and participation in co-curricular opportunities	147
13	Perceived impact of the co-curricular measures on students' employability skills	148

14	The overall impact of co-curricular measures on students' employability skills	148
15	Participants' demographic data	152

List of Figures

Figure Number	Description	Page Number
1	USEM model, (Yorke and Knight, 2004a, p. 3)	63
2	CareerEDGE model (Pool and Sewell, 2007, p. 280)	67
3	Students' codes from the interviews	156
4	Proposed second diminution of Bahrain Polytechnic Employability Framework	237
5	Multi-phased implementation plan	255

List of Appendices

Appendix Number	Description	Page Number
1	Bahrain Polytechnic Employability skills Framework 2010	285
2	Bahrain Polytechnic Employability skills Framework 2016	285
3	Graduate Data Research Project	286
4	Permission letter to use Employable Skills Self-Efficacy Inventory	301
5	Survey Participation Consent Form	302
6	Survey Participant Information Sheet (Students)	304
7	Interview Participation Consent Form (Students and Staff)	307
8	Interview Participant Information Sheet (Students)	309
9	Interview Questions (Students)	312
10	Interview Participant Information Sheet (Staff)	313
11	Interview Questions (Staff)	316

12	Interview Script (Staff)	317
13	Interview Script (Student)	319
14	Key-Scoring Tool	323
15	Excel Sheet -Categories and Subcategories of the Codes	324
16	Codes Validation by Expert	339

Chapter One: Introduction

In this thesis, I seek to develop an understanding of the employability and self-efficacy of undergraduate students at a Bahraini public higher education institution Bahrain Polytechnic. The perceptions of the undergraduate students and the staff members of the institution were explored regarding the measures and the approaches implemented to develop students' employability. Moreover, based on their understanding, I explored if those measures that were meant to develop the students' employability also helped in enhancing students' sense of self-efficacy.

Since I joined the Polytechnic as Director of the Academic Development Directorate, I believe my role had a great influence in choosing the topic of this study. As part of my responsibilities, I am obliged to ensure the implementation of the employability agenda across the institution which is driven by the institutional mission "Bahrain Polytechnic produces professional and enterprising graduates with the 21st-century skills necessary for the needs of the community locally, regionally, and internationally" (www.bahrainpolytchnic.bh).

Consequently, I became highly interested to know more and understand the employability concept in depth. Therefore, as soon as I joined, I began to explore and evaluate the approaches towards embedding the concept in the curriculum and enhancing undergraduate students' employability skills. Based on my reflections as the Director of the Academic Development Directorate and the data gathered for the development of the Bahrain Polytechnic Employability Framework (Janahi & McGirr, 2017) one of the first and most interesting issues that I encountered was the vagueness of the concept. The evolution of its definition has led to an

unclear understanding of the concept and allowed different people such as students, employers, academic staff members, policymakers, and others to have different interpretations of employability over time. Some define employability as simple as the ability to secure a job while understanding the concept among others extends to include the graduates' attainment of the transferable skills that helps them in career progression (Cole & Tibby, 2013). The vagueness of the concept has been also found among Bahrain polytechnic staff and it impacted their interaction and response to the employability project at the institution (Janahi & McGirr, 2017). Another interesting issue that I encountered was the multiple understanding of the contemporary purpose of higher education and its link to employability. As Collini (2012) stated, many higher education institutions are instrumentalized by their governments to satisfy the needs of the market instead of focusing on their historical unique role in supporting research and debate. Arthur (2004) presented the contemporary role of higher education institutions in a simple formula "education = qualification = employment" (p. 147). He stated, "learning is reduced to certification, finding a job, rather than acquiring wisdom, provides the rationale for the study" (Arthur, 2004, p. 147). Similarly, this matter is an issue of concern among Bahrain Polytechnic academic staff members in particular the relationship between academic learning and learning for employability (Janahi & McGirr, 2017). However, as stated earlier, the institutional mission mandates the staff to prepare work-ready graduates. All the institutional practices and measures were directed to align with the mission including the development of an employability-driven curriculum which was also found to be a point of argument among Bahrain Polytechnic academic staff members (Janahi & McGirr, 2017). Some staff argued about the appropriate mechanisms for developing students' employability while others were for the practicality of embedding

learning outcomes that explicitly expected to address employability in the offered programmes at the institution. Like Bahrain Polytechnic, other overseas higher education institutions faced similar issues, and to fulfil their role, the institutions investigated approaches to enhance their students' employability (Speight, Lackovic & Cooker, 2013).

Curiously, various literature for frameworks and models that conceptually explains the approach of embedding employability in higher education were explored. Interestingly, besides the approaches meant to develop students' employability, it has been found that many of those frameworks were developed with a fundamental affirmation of the relationship between students' self-efficacy and employability in nurturing their skills (Yorke & Knight, 2004a; Pool & Sewell, 2007; Bridgstock, 2009; Pool 2020). Self-efficacy as a concept addresses individuals' beliefs regarding their abilities (Bandura, 1986). It is found to be a factor that affects students' motivation to perform a taught skill (Bandura, 1986; Schunk, 1991; Bandura, 1997; Dinther *et al.,*2011). Bahrain Polytechnic does not address self-efficacy as a concept that influences learners' employability through its measures, practices, policies, or even in its employability framework self-efficacy, this will be explained throughout the study.

To prepare the reader contextually, in the next sections a brief background will be provided regarding the higher education sector in Bahrain and its regulatory bodies. A brief regarding the contemporary role of higher education institutions will also be presented. An introductory background regarding the concepts of focus in this study will also be presented. This chapter will also provide context about Bahrain Polytechnic, the place where the study was conducted.

1.1 Bahrain

Since this study is conducted in the Kingdom of Bahrain, the reader needs to understand the context and the background of the country. It will also help to construct meaning out of the findings that are relevant to the uniqueness of Bahrain.

The Kingdom of Bahrain is the smallest country among other Gulf states. According to the Mundi index (www.indexmundi.com/), in 2019 land area was recorded to be 760 km ^{2}, while the population record has shown 1,569,446 in 2018. Bahrain is known for its diversified ethnic groups, the Mundi index records show that the ethnic composition of Bahrain includes Bahraini 46%, Asian 45.5%, other Arab 4.7%, African 1.6%, European 1%, and other ethnic groups 1.2%. This reflects that Bahrain has a high-density of population and a multiplicity of cultures (Davidson & Smith, 2008). Yet statistically, Bahrainis are few, in total they do not exceed a million in number.

For several decades, Bahrain's economy used to depend on oil for income as the primary source of Gross Domestic Product (GDP), like the other neighbouring countries. More recently the Gulf region including Bahrain adopted a trending economic concept which is the knowledge-based economy concept to diversify their GDP and sustain their economic growth (Karolak, 2012). In 2008 Bahrain launched the 2030 Economic Vision based on an evaluation of its national economic strategy,

> *To shift from an economy built on oil wealth to a productive, globally competitive economy, shaped by the government and driven by a pioneering private sector – an economy that raises a broad middle class of Bahrainis who enjoy good living standards*

through increased productivity and high-wage jobs (Bahrain Economic Vision 2030, 2008, p. 3).

Accordingly, many reform initiatives were launched in different sectors to improve economic diversity, upskill the workforce, and improve the living standards of the citizens.

1.2 Higher Education in Bahrain

Bahrain has always considered education to be the main contributor to its economic and political development (Kirk, 2012). Among Gulf states, Bahrain was ranked third for the quality of its education system (GCC Education Sector Report, 2016). Nonetheless, the people of Bahrain are always thought of to be the main national asset of the country. Since early on, Bahrain has prioritised the concept of 'people development' and catered to this concept by establishing different levels of education. Accordingly, the government established regulatory bodies to oversee the sector; and provided many training and professional development opportunities to upskill employees in the education sector and lead Bahrain's education system (Davidson & Smith 2008; Bahrain 2030 Economic Vision, 2008).

All citizens of Bahrain have access to free education services as subsidised by the government through public schools, constituted by the national charter 2002 (Article 7). The pre-tertiary education system in Bahrain is divided into 3 levels including 6 years of elementary (basic level), 3 years of intermediate (middle level), and 3 years of secondary (high level). The basic level of education for citizens from 6 to 14 years old is mandatory according to Law No. 27 of 2005 (World TVET database Bahrain). Historically, the kingdom had strategically focused on education to improve the literacy of its citizens. Literacy rate constantly scored high as it is exhibited by the

Central Intelligence Agency, whose latest record in 2018 shows an adult literacy rate of 97.46 %, and among those, the youth rate was 99.7%.

National financial commitment to the education sector has increased annually by an average rate of 8.2 % from 2010 to 2014 (GCC Education Sector Report, 2016). However, recently the 2019 – 2020 education budget has been reduced due to the overall national debts (The Arab Weekly, 2019).

Bahrain is also known to be one of the earliest Gulf states that invested in the higher education sector (Hayes & Findlow, 2017). Higher education was established as early as the 1960s and began with disciplines such as teaching, health sciences, banking, arts, and technical fields. Tertiary educational institutions are also used to attract candidates who have no interest in the oil industry (Madany, 1988; Davidson & Smith 2008; Hayes & Findlow, 2017). Following those disciplines, universities gradually started to offer programmes that are mapped to the labour market requirements.

At the time the sector began in Bahrain in the late 1960s (Karolak, 2012), higher education institutions were enjoying some autonomy through their internal regulatory frameworks governed by their administrative councils. Though the chairman of the Boards of Trustees of the University of Bahrain, which is the main national university used to be the Minister of Education until recently, yet, for example, the institutions were developing their qualifications independently not following any national policy or quality assurance standards (World Data on Education, Bahrain). However, to govern and maintain the quality of the higher education institutions' offerings in Bahrain, the Higher Education Council (HEC) was established in 2005. It

is the regulatory body that mainly licences and regulates the private higher education institutions in the country. It is part of the Ministry of Education and HEC's general secretary directly reports to the Minister's office. The Higher Education Council's vision encompasses its responsibilities which include licensing higher education institutions; and reviewing the institutions' work, services, and financial status on regular bases. However, to improve the quality of education, the Quality Assurance Authority for Education and Training (QAAET) was established in 2008. It is currently called the Education and Training Quality Authority (BQA). The entity is responsible for all educational and training entities in Bahrain. Their mission is to ensure all educational and training institutions' adherence to quality standards including higher education institutions where they need to maintain the quality of their offered programmes. In its mission, BQA is responsible for evaluating the performance of higher education institutions through continuous review; and places the nationally developed qualifications that met the standards on the National Qualification Framework.

According to the HEC website, Bahrain has 14 registered higher education institutions. Two of which are public institutions which are the University of Bahrain (UOB) and Bahrain Polytechnic (BP). UOB was established in 1986 as the main national university, while the Polytechnic in 2008, by a royal decree, as an education reform board initiative to complement the national economic vision of Bahrain.

1.3 The Role of Modern Higher Education Institutions

To understand the inclusion of employability as part of the higher education mission, it is important to have some background regarding the shift in the higher education institutions' role.

After World War II, higher education institutions established themselves as the main entities for managing and conducting basic research, while governments and industries were responsible for applied research (Gibbons, 1998). However, globally, over the last three decades, the higher education sector has undergone significant transformations due to the global economic shift from an industry-based to a knowledge-based economy (Blackmore *et al.*, 2016). Higher education institutions started to shift their focus to empower graduates with knowledge, skills, and attributes for the world of work (Blackmore *et al.*, 2016). Moreover, the Human Capital theory implies that formal education is highly important to improve the productivity of a population. It emphasises how education increases the efficiency of individuals by increasing their level of intellectual stock of economically productive human capability (Psacharopoulos & Woodhall, 1997; Almendarez, 2011). The theory was supported by the United Nations Educational, Social and Cultural Organisation (UNESCO) and the Organisation for Economic Cooperation and Development (OECD) which provided another economic justification for governments to invest in the expansion of educational opportunities (Krücken, 2014). In Europe, intending to increase the competitiveness of higher education institutions, policymakers prompted the transformations of the sector. The Bologna Declaration of 1999 and the Lisbon Strategy of 2000 were the two most obvious examples aimed to create the European Higher Education and help in making Europe to be the most competitive and vibrant economic part of the world (Krücken, 2014). To align the higher education systems, the Bologna Declaration provided the legal framework for European citizens where academics and students can move easily across the countries of members (Voegtle *et al.*, 2011). Consequently, the Lisbon Recognition Convention came to specify the qualifications with the time credit of these.

Based on the global nature of knowledge production by the educational sector with the evolution of the techno-economic environment it was believed, as Gibbons (1998) presented in his paper that was addressing the need for higher education reform to accommodate the global economic change in at the first UNESCO World Conference on Higher Education, that this division of 'labour less and less relevant' is going to diminish. Eventually, it is thought that with a prepared human capital, the economy is believed to diversify and prosper (Barrow *et al.,* 2010, CBI/NUS, 2011, STEM Report 2012-2013). On the contrary, there was a strong argument that claims there is a gap between the 'imaginary' world that the human capital theory is supposed to create and what happens in the real economic and social world; this is due to the linear approach that education, work, productivity, and earnings are perceived in the context of the theory (Marginson, 2019). Furthermore, Cheng and Ghulam (2007) stated that though education is considered an important driver of economic development, however many studies based on empirical findings failed to show a clear relationship between the role of education concerning economic growth. In an argument by George (2006), he stated that the relationship between the modern role of the higher education sector and economic growth is not clearly established. George also stated, "higher education was believed to be the key to the continuing growth of national economies" (George, 2006, p. 590) while other pertaining variables have not been considered. Similarly, in "What are universities for?" the author argues that the role of education "is reduced to certification, finding a job" (Collini, 2012, p. 147) while, for example, survey results by American Public Agenda (2016) have shown that people are becoming sceptical regarding the value of higher education. The survey explored the opinion of Americans regarding the importance of a college degree for being successful in the workplace, looking at previous surveys, the satisfaction

rate dropped by 13% since 2009, this is just to score 43% of whom believed in the importance of a college degree (American Public Agenda, 2016). Furthermore, the survey also showed with student loans and limited job offerings as perceived by graduates, only 52% believe that higher education investment is worth the financial commitment. On the contrary, Al-Shaiba (2014) stated that the change in the role of higher education institutions has a positive impact on society's welfare and the development of economies. In addition, he stated that the higher education sector has accomplished a significant impact in bridging students' expectations and employers' requirements.

Regardless of the debate, governments were going forward with reviewing their strategies to align their national strategic objectives with the desired economic direction due to the change in their industrial societies and the emergence of the knowledge-based economy concept (Gibbons, 1998; Phoenix, 2003; Brennan, 2008). Consequently, higher education had also to evolve in response to the socioeconomic changes to sustain economic growth in the current era where knowledge has become the focus of success (Brennan, 2008). The need for change was first addressed as a general concern in 1998 at the first UNESCO World Conference on Higher Education where a paper regarding the role expectations of higher education to meet the 21st century needs was presented (Gibbons, 1998). It emphasised the urgency of restructuring the higher education sector to align its policies and practices with the demands of the knowledge-based economy era. The paper explicitly alluded to the level of responsibility that the higher education sector should bear to support transdisciplinary knowledge with an emphasis that disciplines shouldn't be viewed in isolation from one another. Moreover, a clear call for higher education institutions was emphasised to collaborate with industry for knowledge production

since knowledge production can no longer be encapsulated within the walls of higher education institutions following the boost of research and development centres, incubators and innovation labs (Gibbons, 1998). As Knowledge Society focuses mainly on human capital and the shift of roles requires satisfying the market, higher education functions become more apparent and significant. Therefore, the emphasis started to gradually increase on the concept of Dynamics of Relevance. This concept speaks about the importance of aligning higher education offerings with market needs. It is believed that this will help in producing more effective individuals who are expected to lead the economic growth of their nations (Gibbons,1998; Bahrain Economic Vision 2030, 2008). However, the concept of 'dynamic of relevance' or as known by some quality bodies 'justification of need' adds to the assumption that the labour market will have a dominant role in steering education. Now, most higher education institutions are required to align their offerings to the requirements of the market whereby graduates' preparedness for current and future jobs is measured as a quality indicator (Kivinen & Nurmi, 2014).

Internationality and globalisation are considered to be key principles that support knowledge-based economy strategies as these aid knowledge transfer (Gibbons, 1998; George, 2006; Brennan, 2008; Jessop, Fairclough, & Wodak, 2008; Kivinen & Nurmi, 2014; Caruana, 2016). OECD (2010) referred to internationalisation as different forms of trans-border education, this includes the exchange of academic members, students, and programmes (Measuring Globalisation: OECD Economic Globalisation Indicators, 2010). Therefore, global higher education institutions swiftly embedded internationalisation measures to encourage students' creativity and innovation in line with the principles of a knowledge-based economy and innovative research (Kivinen & Nurmi, 2014). With the fuzziness of the higher education institutions' role, Gibbons emphasised the need

for change in the way those institutions are managed, which as he proposed, should be underpinned by the ethos of Quality and Partnership.

Additionally, many international reports (Barrow *et al.,* 2010; CBI/NUS, 2011; STEM Report, 2012-2013; World Economic Forum; 2020), have outlined the need of developing higher education strategies and policies to enhance the offered programmes to equip students with the employability knowledge, skills, and attributes needed for change that in imposed by the economic development (Jessop, Fairclough, & Wodak, 2008; Pavlin & Svetlik, 2014; Kehm, 2015).

1.4 Concepts of Focus

The study focuses on two main concepts which are Employability and Self-efficacy. An introductory brief will be provided in this section; however, the concepts will be explored in depth in the literature review chapter.

1.4.1. Employability

Yorke and Knight (2004b) defined the concept as,

> *A set of achievements – skills, understandings and personal attributes that makes graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community, and the economy (p. 410).*

This definition was adopted by Bahrain Polytechnic in 2016 to cater to its Employability agenda which, in turn, supports its mission.

Before addressing employability's definitions, a little more context to the concept is needed to understand its evolution over the past years. Besides discipline-related knowledge and skills, the

need of developing post-school learners' soft knowledge, skills, and attributes which are commonly referred to as Employability Skills such as communication skills, problem-solving skills, working in teams, and other skills was emphasised by many reports and policies such as (Bahrain Economic Vision 2030, 2008; Barrow *et al*., 2010; CBI/NUS, 2011; STEM Report 2012-2013; World Economic Forum, 2020). Those reports and policies including Bahrain Economic Vision 2030, (2008) accentuated the need of including employability as a goal in the national strategies. The importance of employability is due to its ability to influence labour market competition. On a micro level, employers value people with employability skills, as they are believed to be flexible, have a sense of initiative, and can undertake a different range of tasks in any setup; along with other skills while individuals view employability as a critical concept to secure access to employment and improve social inclusion (McQuaid & Lindsay, 2005). On a macro level, employability is found to be an integral factor in maintaining sustainable economic growth (Jessop, Fairclough, & Wodak, 2008; Bahrain Economic Vision 2030, 2008; Pavlin & Svetlik, 2014; Kehm, 2015). Yet to optimise employability-driven national strategies, a common understanding of the concept is required by all stakeholders. Schomburg and Teichler (2007) have questioned if the meaning of 'Employability' is unified among stakeholders. They argued the basis of the concept and referred to it as a mutable concept that varies in meaning and perception among different groups of people. However, they linked the vagueness of the concept to the possibility of its evolution over time. In general, the development of the employability concept has gradually moved from being perceived as a demand-led set of skills such as communication, collaboration, analysis, and self-management to include aspects that related to the individuals which are not just embracing skills but also the knowledge, and attributes that possess by each individual

uniquely (Cole & Tibby, 2013). For the past three decades, employability as a driving concept was positioned critically on the economical and academic agenda. Policies were created and others were modified to encompass the concept. However, the lack of a clear conceptualization and theoretical control of the concept since there is no agreement about a universal employability definition may cause problems among the students, academic staff members, and employers (Smith *et al.*, 2014).

A quick dictionary search for the employability concept would reveal meanings such as “the skills and abilities that allow you to be employed” (Cambridge Dictionary) and “the quality of being suitable for paid work” (Languages Google Dictionary). The focus of those definitions is merely on securing jobs that support the concept of employment rather than addressing the in-depth understanding of the concept itself. The concept will be explained later in the literature review chapter considering it from the educational context for the reader to understand its impact and position concerning this study.

1.4.2. Self-efficacy

“Self-efficacy, self-confidence, and self-esteem provide a crucial link between knowledge, understanding, skills, experience and personal attributes and employability” (Pool & Sewell, 2007, p. 285). Self-efficacy defined as “People's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (Bandura, 1986, p. 391).

In education, Niu *et al*. (2019) argued that students who believe in their abilities are also likely to be positively confident about their career progression. Lo Presti and Pluviano (2016) stated that

perceived abilities are way more important than the circumstances surrounding the person because precise self-beliefs derive adaptive behaviours. Moreover, to acquire a new skill and succeed in a difficult one, people must have the willingness to do that while enduring failure (Bandura, 1977). Ability is not a fixed quality in a human's behavioural reportorial. Rather, it is a generative capability in which cognitive, social, motivational, and behavioural skills, must be organised and effectively orchestrated to serve numerous purposes (Bandura, 1993). In education, self-efficacy is found to be a key element as it affects students' motivation to learn (Schunk, 1991; Dinther *et al.*, 2011)

Authors including Maibach and Murphy (1995), Bandura (1997, 1986, 1993, 1994, 1997, 2004), Pajares (2005), and Resnick (2013) produced an extensive amount of literature focusing on self-efficacy as an abstract concept perceived by human beings and thought to be reflected through their behaviours. As stated by Williams *et al.,* (2017), "Self-efficacy is an individual's perception of their ability to be successful in a given endeavor" (p. 335). Moreover, self-efficacy has also been studied broadly across many disciplines to explicitly explain those behaviours through people's lifecycle.

This thesis will draw upon Albert Bandura's extensive work in self-efficacy (1995) which provides an in-depth analysis of the concept and a detailed description of the sources that provide the measures of enhancing self-efficacy. The concept will be explored later in depth in the literature review chapter.

1.5 Embedding Employability at Higher Education Institutions

Al-Shaiba (2014) highlighted the impact of the significant change that occurred to the role of higher education institutions. “The traditional role of just being a place for educating people and awarding a degree has transformed into a more significant contributor to the welfare of societies and growth of economies” (Al-Shaiba, 2014, p. 558).

While he added that this impact is not just by focusing on discipline-related knowledge and skills as it used to be in the past, but also by enhancing students' and graduates' general intellectual capabilities and soft skills.

Responding to the new direction, higher education institutions had to undergo processes of restructuring their programmes to adapt to the new role of enhancing graduates’ employability through their offerings. Applied higher education institutions, across many countries, started to incorporate best practices and measures to embed employability, and the higher education commitment to producing work-ready graduates gradually started to increase (Blackmore *et al*., 2016). It has been noticed that higher education institutions implemented two approaches to embed employability, the ‘Bolt-on’ approach and the approach of embedding employability within the curriculum (Blackmore *et al.*, 2016). Moreover, besides those broad approaches that explain the restructuring process, the measures that were adopted for enhancing students’ employability were chosen as they have proven their ability and usability such as the implementation of pedagogies that support the student-centred approach, redesigning programmes, non-curricular activities, and more. These will be explained in depth in the literature review chapter.

1.6 Employability in Bahrain

In Bahrain, the current national economic direction influences public and private sectors including higher education. Consequently, the governing bodies of the higher education sector have incorporated the employability concept in their visions and strategies. Employability is found in the HEC National Higher Education Strategy vision as a core concept that is expected to contribute critically to economic growth.

> *To position Bahrain as a regional hub for higher education, producing graduates with the skills, knowledge, and behaviour required to succeed in global knowledge economy while contributing to the sustainable and competitive growth of Bahrain (HEC National Higher Education Strategy, 2014, p. 11).*

Moreover, the strategy has defined employability as, "The 21st-century skills 'problem solving, critical thinking, communication, teamworking, and attributes needed for the success in the world of work" (HEC National Higher Education Strategy, 2014, p. 12).

The definition is expected to unify understanding among higher education staff in terms of the employability-related expectations from the students and graduates. As the national higher education strategy is the driver of the measures expected to be implemented in higher education institutions, the outcomes of the employability-related measures are expected to prepare students and graduates who can communicate properly, work in teams, and manage to solve problems critically.

In line with the national direction, the Education and Training Quality Authority (BQA) has also recognized employability in the standards and indicators found in its official publications

including handbooks and manuals. In particular, BQA has dedicated sub-strands related to the employability concept required to be fulfilled by higher education institutions and found in the national qualification framework (NQF) descriptors. During the review process of national qualifications for accreditation and placement on the framework, part of the evaluation is to ensure that the submitted qualifications are fulfilling the sub-strands related to employability. Therefore, all higher education institutions in Bahrain are expected to embed the concept in a standardised manner through their learning opportunities. This is expected to eventually help in meeting the national strategic goals and prepare the workforce for jobs of the future. Yet, higher education institutions did not publish their approach to embedding employability in their offerings. This could be a sign of struggle related to the mechanism of implementation. During the employability concept review phase that was mentioned in the previous section, the academic staff members were confused about 'how to embed and assess employability'. Some stated that developing accessible course learning outcomes for skills such as teamwork and communication are doable and simple, but other skills such as learning and self-management are 'fluid in nature', intangible, and not easy to assess. Though the educational regulatory bodies indicated the standards, yet there is a lack of clarity in terms of 'how' to embed employability through curricular and even co-curricular learning opportunities. In the coming section literature will be reviewed to identify employability measures and structural approaches adopted by higher education institutions on international and national levels.

1.7 Bahrain Polytechnic

The study has been conducted at Bahrain Polytechnic, which is a public higher education institution in the Kingdom. To understand the reason why the Polytechnic was chosen the reader needs to have some background about the institution. In 2008, several education and training reform initiatives were launched including the establishment of Bahrain Polytechnic by the Royal Decree 65-2008 to meet Bahrain 2030 Economic Vision objectives. The drivers as stated by the decree are:

1. to provide sufficient opportunities for applied education and training aligned with the needs of the market;
2. to collaborate with the private sector in designing a curriculum fit for purpose of the labour market needs;
3. to offer programmes that required by the market and aligned with the 2030 Economic Vision;
4. to prepare professional and enterprising graduates of choice desired by the employers;
5. to encourage applied research initiatives that cater for the mission of the institution and labour market needs (Royal decree 65, www.polytechnic.bh), Establishment of Bahrain Polytechnic, 2008).

The objectives of the decree are reflected in the Polytechnic's mission as stated, "Bahrain Polytechnic produces professional and enterprising graduates with the 21st-century skills necessary for the needs of the community locally, regionally, and internationally." (www.polytechnic.bh) This initiative, as indicated by its mission, has a greater aim than focusing

only on the conventional core-discipline knowledge and skills that other local higher education institutions concentrate on in Bahrain; it also centres around the concept of employability and responsiveness to the dynamics of the market.

Since its inception, the Polytechnic has worked to operationalise its mission through the development of strategic plans every 5 years. The 2015 -2019 strategic plan has emphasised 5 strategic goals:

1. From start-up to sustainability: this objective implies adopting measures that will help in maintaining a sustainable ecosystem for the organisation to prosper and meet its mission;
2. Graduate reputation: it reflects the Polytechnic's commitment to prepare graduates with qualities for a world filled with opportunities and sophistications;
3. Assurance of learning: this objective assures the provision of recognised, and high-quality learning opportunities to student prospects;
4. Engagement for impact: the institution promises to support dynamic and positive interactions that augment its influence to social and economic wellbeing;
5. Incubating entrepreneurship and research, the objective speaks to the institution's plan to support applied research to and nurture entrepreneurship opportunities.

Each of those objectives was related to employability, yet each has a different level of impact on graduates' employability, as some were directly related to the concept such as graduate reputation, and assurance of learning, while the rest of the objectives have less impact.

Currently, the offered undergraduate programmes have been selected, developed, and modified over the years based on extensive market research that was conducted for each programme

before its establishment and while it is running. These are Business, Engineering, Logistics, Visual Design, Web Media, and Information and Communication Technology. Besides the extensive research, local and international accreditations, benchmarking processes, reviews, monitoring, and moderation activities the institution has developed a model to maintain the currency of the running programmes with the market requirements called the Institution-Industry Collaboration Model. This model is structured to allow representatives from the market to act as regular consultants providing their valuable input on matters related to the curriculum through Career Advisory Committees/ Groups. Yet, another form of consultancy meetings is conducted called Thematic meetings to address issues directly related to majors and disciplines within the programmes.

Since the beginning, the establishers of the Polytechnic took on board the responsibility of tailoring an employability framework that fits the Bahraini context. After thorough consultation rounds with market representatives, in 2010 the first Employability skills Framework which was aligned with the Australian practice was approved by the Academic Board. The framework includes 8 employability skills (Appendix 1) defined by the market representatives:

1. Teamwork,
2. Problem solving,
3. Communication,
4. Initiative and enterprise,
5. Planning and organising,
6. Self-management,
7. Learning,

8. Technology.

Later in 2015, after a comprehensive institutional review, it became evident that the Employability skills Framework was neither comprehensive nor rooted as assumed (Janahi & McGirr, 2017). The result of the discussion forums that were conducted in 2015 and 2016 for Bahrain Polytechnic staff members from academic and allied sides, showed two important key elements that required an immediate plan:

1. different perceptions regarding the employability concept, which provided an opportunity for different interpretations that had an impact on practice;
2. different perceptions regarding the meaning of 'framework' regarding conceptualisation and practice (Janahi & McGirr, 2017).

As a result, Yorke and Knight's (2004b) definition has been adopted based on its fitness to the context, and Bahrain Polytechnic Employability Framework has been developed and approved in 2016 (Appendix 2). The framework encompasses two institutional structures:

1. Learning Opportunities
2. Assurance of Learning

The first structure is a combination of measures and practices that are benchmarked and embedded to provide curricular and co-curricular employability-related learning opportunities. Examples of those opportunities are teaching and learning methods such as Problem-Based Learning and Work Integrated Learning approach. While the second structure assures the development of employability through direct and indirect approaches such as feedback from stakeholders, and assessments that were built based on the constructive alignment concept.

Employability as described by the terms that were used in the framework 'knowing, doing, and being' of the learner is expected to be nurtured by the 2 structures that revolve around the learner. In tandem with the structures, the framework recognises the external, unmodifiable influencers that are found outside the boundaries of the institution and have a great impact on learners' employability such as governmental laws, market and industry requirements, and learner societal activities. Nonetheless, for its value, reflective practice has been overtly presented by the framework as an approach to the assurance of learning via direct and indirect approaches. Reflection is an assessment method embedded in many courses across the offered programmes at the polytechnic. Though there was no direct reference to the concept of self-efficacy in the framework, according to Janahi and McGirr (2017), the framework development document that has been approved by the Academic Board acknowledges the learners' uniqueness, and potential variance of their employability skills level at enrolment stage and during their educational journey. The document also acknowledges the impact of the individualised circumstances that each goes through on the development of their employability.

Bahrain polytechnic yearly student intake varies from 500 – 700 students. Around 85% of the students' intake enrol in the 1-year Foundation programme since they do not meet the entry requirements of the degrees. Besides courses that prepare them for a degree such as Math, English, and Information Technology, the Foundation year students also have to master learning outcomes that are responsible for enhancing their soft skills such as communication, collaboration, critical thinking, and skills of learning. According to the registrar's office, currently, the total enrolled number of students in the Polytechnic is around 2200, with a ratio of academic members to students is 1:16, while in extreme cases the ratio is 1:20 according to the institutional

Teaching and Learning Principles document that has been approved by the Polytechnic Board of Trustees. Bi-semesterly, Bahrain Polytechnic students complete graduation requirements and start their work journey followed by Graduate Destination Surveys to determine their penetration in the market. The purpose of the survey is to find out about graduates' employment status after 6 months of their graduation. It counts as the first indicator that speaks to mission fulfilment.

In general, all developed structures across the institution help to align the offerings with market requirements. As indicated by the graduates' surveys and focus groups' results of 2017 and 2018, the programmes offered by the institution suited the requirements of the market and prepared the graduates for their currently occupied jobs. Moreover, graduates reported the impact of the teaching and learning approaches that are implemented by the institution in developing their employability skills. A similar outcome resulted from the Employer Employability Surveys for 2017 and 2018, where working graduates' direct line managers were surveyed to explore their perceptions regarding Bahrain Polytechnic graduates' employability skills. The results revealed a high sense of satisfaction among line managers regarding the working graduates' employability skills and preparedness for the jobs that they are in now.

Chapter Two: Literature Review

This chapter will include the scope and the rationale of the literature review, an overview of employability and self-efficacy definitions, a brief regarding employability in Bahrain, a section that addresses the self-efficacy concept as per Albert Bandura's self-efficacy theory as well as other researchers' perspectives in this regard. Then the models that have shown a correlation between employability and self-efficacy concepts will be presented, while a comprehensive review of the four sources of Bandura's self-efficacy including mastery experiences; vicarious experiences, verbal persuasion, and emotional and physical arousal will also be explored. Finally, an overall summary will be provided at the end of the chapter which will inform the issues that will be addressed and the methodological approach that will be followed in later stages.

2.1 Aim of the Review

The literature review aims to identify, evaluate and present the related articles and research papers that address employability and self-efficacy concepts, employability in Bahrain and specifically in the higher education sector, the response of the higher education sector to embed employability, the models that recognized self-efficacy as one of the main elements to develop student employability and the sources of self-efficacy.

While reviewing the literature, the narrative rather than the systematic literature review approach was applied to the study. The systematic approach is mostly used to rigorously examine and synthesise findings for a specific issue or intervention from all related available studies to demonstrate the effectiveness of an outcome for a specific practice; the approach is also restricted by meticulous inclusion and exclusion criteria such as participants characteristics,

applied methods of research and other criteria (Greenhalgh, 1997). Therefore, the narrative literature review approach was chosen as it is more suitable for the context of this study to provide an in-depth understanding of the multidimensional concepts of employability and self-efficacy and draw on a thorough analysis of primary studies and knowledge regarding the topic (Mays *et al.,* 2005). In the narrative approach, the thematic analysis of the studies brings the finding into a thematic presentation. However, this approach was criticised for being less structured, with no selection criteria which allows subjectivity in choosing the presented studies (Mays *et al.,* 2005). Subjectivity in selection is also perceived as a potential bias that weakens the approach (Yuan & Hunt, 2009). Therefore, by applying a defined research strategy that includes some of the systematic approach principles, the quality of the review will be improved, and the selection bias of the articles will be reduced (Ferrari, 2015). The principles include a well-defined aim as -presented earlier-, clear questions, and precise inclusion, and exclusion criteria.

Accordingly, the inclusion criteria encompassed articles, models, and studies that are in the field of education, mainly addressing the higher education sector and undergraduate students from any discipline. Also, papers that were written in English from different parts of the globe were considered as well as published theses. For employability literature, the search included literature from the last 20 years since the concept took its current shape during this time as described in the definition section in this chapter. While the period that targeted the literature on self-efficacy and its sources includes papers from the 1980's as the concept emerged back then.

The search process included key search terms taken from the aims and the questions of the research and included:

- Employability skills and undergraduate students
- Employability skills and self-efficacy concept
- Employability framework, model and self-efficacy
- Sources of self-efficacy
- Higher education institutions and employability development measures
- Employability, self-efficacy scale

Regarding the exclusion criteria, I have excluded non-English papers with no access to the full text, Papers that addressed employability and self-efficacy from other than curricular and co-curricular enhancement measures such as effect on GPA and assessment, employability models that did not include self-efficacy as the main concept of employability models that focus on other aspects such as the labour market. Moreover, I excluded papers that targeted samples other than higher education students, papers that focused on employability and self-efficacy among job seekers, and scales that addressed either employability, self-efficacy, or both in one skill only.

2.2 Questions of the Review

The literature review focused on several questions. Some were to develop the context for the reader and others to address the main issues that were intended by this study.

- How is employability presented in the literature?

- In Bahrain, what drives employability, and how did higher education strategy address the concept?
- Globally, what was the higher education institutions' response to including employability in their agenda?
- What are the perspectives of Bandura and other researchers' regarding self-efficacy?
- How did employability models address self-efficacy?
- How did the sources of self-efficacy influence undergraduate students' sense of self-efficacy?
- What are the research designs used to explore this topic?

2.3 Definition of Employability

The early twentieth century was when the employability concept was first introduced in the United Kingdom (Beveridge, 1909). The concept gradually evolved to accommodate an essential position in economic and education policy discussions due to its direct link to the investment in human capital which is believed to sustain the economy (McQuaid & Lindsay, 2005). Gazier (1999) traces the changes that took place in the concept and its understanding over time. According to Gazier, the concept process is presented in three different time waves. The first wave was in the early 20th century when 'Dichotomic employability' appeared (Gazier, 1999). As the oldest definition, employability was known as the ability of an individual to either be employed or not. The second wave is between the 1960s to the 1970s, 'Socio-medical employability and manpower policy employability' started to appear (Gazier, 1999). Those terms

focus on individuals' physical, social and mental abilities and their alignment with the labour market requirements. Due to the shortage of skilled individuals in the post-war time and those who had lost their sense of self-confidence, these understandings of the concept emerged to provide opportunities within the economic environment while enhancing self-confidence and attitudes towards employment.

A shift in perception began to take place at the end of the 1970s as a result of the economic recession that hit some of the leading industrial countries where occupational skills were not enough to sustain the economy and its growth. As a result, the third wave, 'Labour market performance employability' started in the 1980s and developed in the 1990s. The concept started to become more dynamic, focusing on the development of individuals' soft skills including social and relational skills. Moreover, the enhancement of skills for progressive career development gradually became a norm among workers and organisations to provide transferable and flexible mobility between careers. Pegg *et al.* (2012) argued that economic agendas as well as political and environmental factors have always influenced higher education institutions to consider graduate employability as one of their main strategic goals.

Beyond the historical impact on the evolvement of the concept, McQuaid and Lindsay (2005) present a comprehensive review of the literature where they analysed applications of the concept and discussed its value for policy analysis. Accordingly, the United Kingdom, in 1997, as per HM Treasury, the government referred to its definition for employability.

> *The development of skills and adaptable workforces in which all those capable of work are encouraged to develop the skills, knowledge, technology, and adaptability to enable them*

> *to enter and remain in employment throughout their working lives (HM Treasury, 1997, p. 1).*

The definition had a limited perspective focusing on the knowledge and skills of workers required to gain jobs and maintain their jobs as long as they are fit to work. Yet this perspective was general enough to address a governmental economic issue related to employment at the time. Simultaneously, as it was central to the strategic direction of the Department for Education and Employment (DfEE), Hillage and Pollard (1998) were commissioned at the time to thoroughly review the concept and provide an operational definition and framework for employability. The authors argued that employability had several definitions, yet those were composed of main common elements including:

1. Secure employment,

2. Maintain employment,

3. Be able to obtain new employment, and

4. Quality of employment.

> *Employability is the capability to move self-sufficiently within the labour market to realise potential through sustainable employment. For the individual, employability depends on the knowledge, skills, and attitudes they possess, the way they use those assets and present them to employers, and the context (e.g. personal circumstances and labour market environment) within which they seek work (Hillage & Pollard, 1998, p. 2).*

Hillage and Pollard (1998) provided this descriptive and workable definition of the concept which marked clear expectations for all stakeholders, yet it emphasises job-seeking principles. In their review, McQuaid and Lindsay (2005) also referred to the Northern Ireland Department of Higher and Future Education, Training and Employment (DHFETE) employability.

> *Employability is the capability to move into and within labour markets and to realise potential through sustainable and accessible employment. For the individual, employability depends on the knowledge and skills they possess, and their attitudes; the way personal attributes are presented in the labour market; the environmental and social context within which work is sought; and the economic context within which work is sought (DHFETE, 2002, p. 7).*

Moreover, McQuaid and Lindsay presented the Canadian Labour Force Development Board (1994) definition as one of the holistic definitions considering two main pillars, the individual skill set and the supply and demand of the labour market,

> *Employability is the relative capacity of an individual to achieve meaningful employment given the interaction of personal circumstances and the labour market (Canadian Labour Force Development Board, 1994, p. 8).*

Both previous definitions acknowledge the interaction between the two pillars 'the individual and the market' yet they lack the consideration for the developmental changes or the learning that occurs during employment and the transferability of the gained knowledge, skills, and attributes across the different careers.

McQuaid and Lindsay (2005) also referred to the Confederation of British Industry (CBI) definition which provided a different perspective on the concept,

> *Employability is the possession by an individual of the qualities and competencies required to meet the changing needs of employers and customers and thereby help to realise his or her aspirations and potential in work (CBI, 1999, p. 1).*

Interestingly, the confederation introduced the element of 'aspiration' which reflects the desire of the employee and no longer speaks to securing jobs only. Moreover, the two-way relationship between the employer and the employee as well as the possible synergy that could result from this relationship provides an evolved understanding of the concept.

As in the higher education sector, Barrie (2004) described their journey with employability to be multi-directional including university-level learning experiences. He has emphasised the importance of 'transferability' by transferring the gained knowledge obtained from the higher education learning experiences to another. While Stephenson and Yorke (1998), focused on students' capabilities in their definition. "An integration of skills, knowledge and personal qualities used appropriately and effectively in changing circumstances" (Stephenson & York, 1998, p. 14).

Harvey (2003) also emphasised student and graduate's ability to learn when describing employability.

> *Employability is more than about developing attributes, techniques or experience just to enable a student to get a job or to progress within a current career. It is about learning, and the emphasis is less on 'employ' and more on 'ability'. In essence, the emphasis is on*

developing critical, reflective abilities, with a view to empowering and enhancing the learner (Harvey, 2003, p. 3).

There are strong suggestions that employability and learning about career management need to start early while the students are still in the higher education system and that should be through credit-bearing programmes. (York & Knight, 2004; Bridgstock, 2009; Harvey, 2010). Moreover, it is emphasised that while developing measures meant to embed employability it should not be diminished to address 'skills' only "divesting it of its complexity and richness and compromising the credibility of the employability agenda" (Knight & Yorke, 2002, p. 265). Instead, the measures should be comprehensive, and they should be addressed through curricular and co-curricular approaches allowing the concept to be nurtured by all learning means.

In a study by Hinchliffe and Jolly (2011), they explored employers' expectations regarding graduates' skills, competencies, and attributes, and if there are other expectations from the employed graduates. This is to provide a theoretical framework for evaluating employability skills identified by higher education institutions. 105 participants surveyed from small and medium-sized enterprises (SMEs) 66.7% and the public sector accounts for 35%. The participants were from a variety of sectors. Two instruments were distributed, the first instrument contained 47 statements exploring the graduates' potential. While the second instrument contained several skills related to the statements from the first instrument to understand the employers' level of expectation regarding the specific skills. 20 in-depth interviews followed the quantitative data collection. The results suggest that the skills and knowledge of the individuals cannot be simply transferred during the transitional stage from students into working graduates and graduate identity should be perceived as the cultural capital obtained before entering an organisation. The

researchers adopted the mixed-methods approach as employability in the context of identity is relatively new and broadened therefore the in-depth data was essential to support their findings and to understand the employers' perspectives better if what they are looking for is beyond skills.

With the multiple philosophies and models and the provision of a stretched understanding that involves modern principles such as the inclusion of the community contribution for a rounded citizen, the notion of 'Being', career identity, and personal adaptability (Bowden *et al.*, 2000; Yorke & Knight, 2004a; Fugate *et al.,*2004; Lowden *et al.*, 2011), higher education institutions and the academic staff members working in the higher education sector find it difficult to embrace a unified and a comprehensive approach to embed employability.

To optimise the employability agenda and implement the measures to help in developing employability effectively, it is essential to explore the perspective of those who are expected to implement the measures in any educational organisation. For this study, data regarding Bahrain Polytechnic staff members' awareness and perspectives of the concept was available. In June 2015, a comprehensive review took place at the institution where out of 400 staff members, 188 staff participated in the perception review regarding the concept. 58% of the participants were academic while the rest were administrative staff members (Janahi & McGirr, 2017). The staff representation was from different hierarchical levels. The findings indicated that the staff members had a different understanding of the concept and there were different practices applied across the institution accordingly, it was proposed to adopt a definition to unify the staff's understanding of the concept and to develop a comprehensive framework that links the main principles to complement the concept at the institution as well (Janahi & McGirr, 2017). Yorke and Knight's (2004b) definition has been approved by the Academic Board and populated

through the institutional Glossary of Terms Quality Assurance page and followed by many awareness sessions for the staff members (Janahi & McGirr, 2017).

2.4 Employability and Higher Education

As discussed in the introduction chapter, in 1998 in Paris, the first UNESCO Higher Education World Conference discussed the expected role of higher education institutions in the twenty-first century. This was a turning point in time for the international higher education sector. The paper was presented by Michael Gibbons, Secretary General of the Association of Commonwealth Universities emphasising the need for higher education reform to accommodate the global economic change. The paper set forward the direction for higher education institutions to focus on three major principles. These are quality, internationality, and relevance (Gibbons, 1998; Simpson, 2013). Focusing on the third principle which is 'relevance' this concept speaks to the consistent match of the higher education offerings and the market needs with an aim to prepare graduates with the employability skills required to be work-ready and be able to prosper in the world of work (Kivinen & Nurmi, 2014). Rae (2007) stated that to fulfil the new role of higher education institutions there is a need to increase the interactions between higher education institutions, students, academic staff members, and employers using innovative learning approaches that include both curricular and co-curricular measures. Many higher education institutions adopted two approaches to embedding employability through their practices and learning opportunities; those are the 'Bolt-on' co-curricular approach and the approach of embedding employability within the curriculum (Blackmore *et al.*, 2016). The following sections will address both approaches.

2.4.1 Curricular Approach

To understand the impact of the curriculum on employability it is important to explore what 'curriculum' entails. Historically curriculum has not been purposefully developed to achieve a clear set of goals. Instead, it has evolved as a response to the growing complexity of educational decision-making (Longstreet & Shane, 1993). In education, curriculum as explored by Wen Su (2012) could either have the narrow perspective that is perceived by many as a method of achieving certain educational goals and objectives; or the broad understanding that reflects a complementary set of plans and experiences that a student accomplishes under institutional guidance (Marsh, 1997, p.5). The holistic approach to the term is not limited to a set of objectives and goals as stated in the first definition, but also includes other important aspects that nurture students' structural learning such as content, methods, assessment, learning environment, hidden curriculum, and cultures (Marsh, 1997). As part of curricular restructurings, institutions such as Maastricht University, McMaster University, Aalborg University, Bologna University, and Republic Polytechnic apply student-centred teaching and learning approaches similar to the approaches applied by Bahrain Polytechnic. Those approaches were adopted to develop learners' employability skills including problem-solving, collaboration, communication, leadership, and other skills. The approaches identified are problem-based learning, project-based learning, blended learning and many other innovative approaches. Those methodologies are adopted to manage and align the graduate profiles with 21st-century skills. (Tan, 2003; Yorke & Knight, 2007; Kolmos *et al.*, 2008; Martin *et al*., 2008; Whatley, 2012). According to the literature, the problem-based learning approach enables the students to develop the skills required later for employment while assisting in the development of subject-specific knowledge and skills during their academic

journey itself (Moore & Poikela, 2011; Yorke, 2010; Kek & Huijser, 2011). A study of 273 third-year undergraduate psychology students by Karantzas, *et al.* (2013) underwent a problem-based learning tutorial programme aimed to develop their critical analysis and problem-solving skills reported a considerable linear increase in specific employability skills which are problem-solving and critical analysis as a result of the tutorial programme. The results indicate that a curriculum based on inquiry methods such as problem-based learning provides opportunities for an undergraduate to develop specific employability skills which are critical analysis and problem-solving skills. Another study by Beagon *et al*. (2019) explores first-year engineering students' perceptions regarding the effectiveness of problem-based learning applied in design project courses to develop students' employability skills. The study was conducted over a 6-week cycle with around forty students per cycle and the students were divided into four to five students per group. Surveys were administered before and after the group project. Moreover, the students were asked to reflect on the process as well. The results of the survey and the reflection analysis revealed that students perceived a significant improvement in their employability skills such as teamwork, communication skills, and self-directed learning skills after the project. They also conveyed that their self-confidence improved.

Furthermore, in the curricular approaches, work-integrated learning (WIL) is another teaching and learning methodology found to be widely adopted by many higher education institutions (Yorke, 2010; Jackson, 2015). This approach has shown evidence of building learners' expatiations towards future jobs and employing their knowledge, skills, and attributes in real situations to meet the requirements of their workplace, moreover, it helps to develop learners' professional identity through their academic journey (Trede & McEwen, 2015; Jackson, 2017). In a study by

Jackson (2015) where 131 undergraduate students from different programmes were surveyed in an Australian university; the results revealed that though the WIL approach has its advantages in developing students' employability skills, it is not an alternative to the on-campus learning experience. The study showed that WIL provides opportunities for students to demonstrate and refine their skills in a real job setting. It also helps students to engage directly with professionals and gain a sharper understanding of the roles that they will be performing in their future jobs. However, the findings of the study also highlighted the factors that are essential for the approach to produce the desired outcome. Those factors are:

1. prior preparation by course content and design, for example, the use of a certain technology should be introduced in the classroom before work placement.
2. embedding feedback and reflective practice, and
3. the continuous engagement between the academic staff members and practitioners in developing and establishing best practices in areas related to market-tailored programmes as this eventually contributes to sustainable economic growth (Wilson, 2012).

Redesigning programmes is also a strategy used to incorporate employability in many higher education institutions aligning the curriculum to the needs of the labour market. The redesigning approach is supported by many researchers (Yorke & Knight, 2006; Pegg *et al*., 2012; National Higher Education Strategy, 2016). Institutions have redesigned their programmes in various ways including a bottom-up restructuring approach of the curriculum to embed employability explicitly. This approach is based on constructive alignment from course learning outcomes to programme learning outcomes. For example, Birmingham City University has adopted this

approach where programme learning outcomes and course learning outcomes were mapped to enhance students' employability. Moreover, co-curricular activities were made available as additional opportunities to develop employability (www.bcu.ac.uk). Other institutions such as the University of Central Lancashire have implemented a more lenient approach where the change was done to the teaching methods or by incorporating means such as real work experience at a course level, while specific skills-related modules offered and specific projects initiated to develop employability (Pegg *et al*., 2012; www.uclan.ac.uk).

The curricular restructuring includes the provision of 'fit for purpose' programmes which are not just addressing the discipline-specific knowledge and skills but also the skills required by the market and helps in the development of graduates' employability (Gibbons, 1998, Blackmore *et al.,* 2016). Moreover, this helps the programmes to maintain their currency, relevance, and existence (Yorke & Knight, 2006; Pegg *et al.,* 2012).

2.4.2 Co-curricular Approach

The co-curricular approach is considered to be a 'bolt-on' approach that represents measures sit outside the academic programme, but still relate to it. This approach includes co-curricular measures, workshops, or non-academic programmes that students optionally take, and it is non-credit bearing in nature (Blackmore *et al.*, 2016). As an example of a 'bolt-on' approach, University College London strategically focuses on global citizenship to enrich the students' experiences by encouraging a year or a semester of international study with their international higher education partners. Through this programme the students get to be involved in non-curricular activities that help them to enhance multiple skills.

In a study by Jackson and Bradstock (2020), 510 graduates from Australian universities were surveyed to explore their perceived value of co-curricular activities regarding the development of their skills, the gained experiences, networking, and identifying career opportunities. The results showed that the value gained from the co-curricular activities was mainly useful for developing skills and gaining experiences than for broadening networks and improving employment opportunities.

In another study by Lau *et al*. (2014) employability skills of 28,768 business school graduates were examined in association with their participation in multiple co-curricular activities that included their involvement in student government bodies and clubs. The results showed students who had been main members of those associations were able to reflect on their skills and show positive perceptions in evaluating their communication, leadership, and creativity skills. Jackson and Tomlinson (2021) also used survey data from 352 Australian and UK university graduates examining their participation in co-curricular activities and their importance for the development of students' employability skills. The findings revealed that the graduates valued co-curricular activities for boosting their employability. Those studies were directly examining the impact of co-curricular activities on students' skills development, and it shows that those who take an active part in co-curricular activities perceive its value especially in developing their skills. From employers' perspectives, Tchibozo (2007) stated that employers emphasised the importance of students' participation in co-curricular activities and valued those opportunities as a way to develop their employability skills, and they considered the students' participation in those activities to be beneficial for their work in the future.

2.5 Employability Agenda Consequence

Consequently, on a global level, the adopted approaches by higher education institutions vary; however, the aim is unified across these institutions to prepare graduates with employability skills required by the market. Therefore, national-level recognition is always an important driver to embed employability in curricular and co-curricular learning opportunities.

In the UK, since 2002 the Enhancing Student Employability Co-ordination Team (ESECT) and the Higher Education Academy have been working to embed certain employability skills such as communication, numeracy, the use of technology, and learning into the curriculum (Barrow *et al.,* 2010). The higher education quality assurance agencies are emphasising now incorporating these skills into the curriculum and identifying the best approaches for teaching the skills. According to QAA the approach to good practice by higher education institutions has been identified through 2 core elements:

1. Embedding employability in the curriculum – this can be achieved by developing courses aligned with industry needs and ensuring the incorporation of skills that enhance employability,
2. Working with employers – by embedding work-integrated learning methodology, for example: adopt work placements strategies, internships, and call alumni and other industry partners as guest speakers to fulfil some elements of the offered courses (QAA, 2017).

The higher education regulatory bodies in the Kingdom of Bahrain follow many of the UK practices and strategies in higher education in particular to employability. As soon as the National

Higher Education Strategy was released by the HEC, an intensive workshop conducted by the UK Higher Education Academy, entitled 'Embedding Employability Skills in the Curriculum' followed the First National Skills and Employability Summit in June 2015 that discussed the concerns of the labour market and the government whether our higher education institutions adequately prepare graduates to enter the workforce (British Council, 2015). All public and private higher education institutions were invited to the workshop and there was an obligatory requirement post the workshop to submit an action plan explaining the steps each higher education institution intends to follow to embed employability through the learning opportunities provided by those institutions.

As a higher education institution, Bahrain Polytechnic submitted a plan indicating the development and implementation of the employability framework in stages following the Development of Employability Framework that was launched by the Higher Education Academy UK after the workshop. As mentioned, the definition and the framework were approved in 2016. Following that, many capacity-building sessions were conducted for all staff in the institution and finally an 'Employability Implementation Plan' was approved by the academic board. The plan proposed to critically identify the employability gaps in the curriculum of every programme, and embed employability skills as required in every programme by:

- Writing programme and course learning outcomes as required to meet employability agenda.
- Developing teaching and learning materials, assessment tools, and rubrics to address the gap in the curriculum.
- Help students in storing their work on one platform 'ePortfolio'.

- Provide support to the students through academic and career advising.

Concerning other institutions, only the University of Bahrain has included employability as part of its strategic plan. No details or updates were provided by HEC or other higher education institutions regarding their plans. In conclusion, as encouraged by the regulatory bodies in Bahrain, the adoption and implementation of the employability agenda at higher education institutions differ. There is a clear mention and a strategy that supports employability in public institutions while private institutions are silent about it.

Before addressing the second concept which is self-efficacy, employability models developed for higher education will be explored to identify the principles that influence undergraduate students' employability.

2.6 Employability Models and Self-efficacy

As mentioned earlier, many employability models proposed over the last three decades to guide higher education institutions in embedding the concept across their offerings (Yorke & Knight, 2004a; 2004b; Harvey, 2010; Speight, Lackovic & Cooker, 2013; Sumanasiri, Yajid & Khatibi, 2015; Blackmore *et al.*, 2016). One of the earliest models of employability developed by Cotton (1993) is the 'Employability Skills Model'. The model recognizes skills and simply categorises them into three types: basic skills, higher-order thinking skills, affective skills, and traits. The model was criticised mainly for it is merely a collection of skills and not recognizing employability-enhancing factors such as attitude and experience (Sumanasiri, Yajid & Khatibi, 2015).

Hillage and Pollard (1998) also developed an employability model, which is regarded as a pioneering model for including four vital elements of employability extracted from the definition that they proposed as described in the Employability Definition section earlier. These are:

1. Assets, which are an individual's assets of knowledge, skills, and attitude;
2. Deployment, which speaks about individual skills related to career management, job search, and strategic outlook;
3. Presentation, which speaks about the individual's ability to present his/her assets to prospective employers; and
4. Contexts, which speak about the individual's ability to utilise the employability assets based on his/her personal and external circumstances.

Though Hillage and Pollard (1998) employability model was found to be instrumental in including employability elements that enable individuals to be employed, it lacked an explanation of the underlying factors of employability (Sumanasiri, Yajid & Khatibi, 2015). Similarly, Bridgstock's (2009) employability model also stressed career management and self-management skills, however unlike the previous models, this model briefly stated employability traits and dispositions including career self-efficacy. While the 'Employability Development Model' by Harvey (2010) focused on the role of higher education institutes in providing a range of employability learning opportunities for students. As described, those opportunities are either implicitly embedded in the programmes or explicitly structured as complementary modules. Harvey's (2010) model presented the roles of all stakeholders: students, higher education institutes, and employers. Harvey (2010) also indicated that graduate employment should be considered as an indicator of his/her employability and institutional employability measures

should not be considered as the reason for it. The model was criticised for being theoretical, and complicated which limits its application (Sumanasiri, Yajid & Khatibi, 2015), and linear for not recognizing the factors that contribute to employability (Copps & Plimmer, 2013).

Bennett *et al.* (2016) employability model was developed to address the issue regarding the different types of academic staff who vary in their understanding of their role in assisting the development of students' employability. In response to the differences in tutors' attitudes, the model provides a systematic approach that includes five main themes:

1. Develop skills and knowledge,
2. Develop self,
3. Develop career and awareness,
4. Interact with others, and
5. Navigate the world of work.

However, the cyclical model is just steps that lack the factors to be considered and the operational approach to developing students' employability.

As the employability definition was moving away from being simply skills and approaches required by graduates to secure jobs, it began to acknowledge the dynamic link between learning, self-efficacy, and employability concept. Bandura's (1995) belief regarding the role of education meant to equip learners with the knowledge, skills, and self-belief to develop themselves started to permeate some of the employability models. The nature of employability as a multifaceted concept (Harvey, 2001; Harvey, Locke & Morey, 2002; Yorke & Knight, 2004a; Hinchcliffe & Jolly, 2011; Tomlinson, 2012), gradually incorporated self-efficacy as one of the

main components of employability models. Asserting its essential role in nurturing the development of graduates' employability.

For this study, two well-known employability models that incorporate self-efficacy as one of the main leading components of developing students' employability were chosen and will be presented thoroughly. This will provide an understanding of the role of self-efficacy in developing students' employability. Those models are:

1. The Understanding, Skills, Efficacy beliefs and Metacognition model which is known as the USEM employability model by Yorke and Knight (2004a), and
2. CareerEDGE Employability model by Pool and Sewell (2007).

USEM employability model is "the most well-known and respected model in this field" (Pool & Sewell, 2007, p. 278). The model is widely perceived as a progressive approach to conceptualising employability about other vital elements of the concept (Sumanasiri, Yajid & Khatibi, 2015). It is "an attempt to put thinking about employability on a more scientific basis, partly because of the need to appeal to academic staff on their terms by referring to research evidence and theory" (Yorke & Knight 2004b, p. 37). Yorke (2001) identified the importance of one's self-belief as much as having the required skills to apply in challenging situations. This implies that abilities in isolation from belief will not help students comprehensively. Knight and Yorke (2002) found gaps in the undergraduate curriculum, in issues such as considering ethical understanding, performing moral acts, and possession of a flexible self-theory. Therefore, the work of Yorke and Knight (2004a) USEM model is based on Stephenson and Yorke (1998) concept of capability which was heavily drawn from cognitive and social psychology and defined as,

An integration of knowledge, skills, personal qualities and understanding used appropriately and effectively—not just in familiar and highly focus specialist contexts, but in response to new and changing circumstances (p. 2).

The USEM model acronym stands for four main components which are Understanding, Skills, Efficacy beliefs, and Metacognition (Figure 1). Understanding refers to the knowledge that the student attains which was described as the main outcome of higher education. Skills refer to "skilful practices" (Yorke & Knight, 2004a, p. 4) where students need to demonstrate a variety of skills at a certain level. As for 'Efficacy beliefs' it is representing students' belief regarding their abilities in line with Bandura's definition of self-efficacy and the Malleable self-theories as described by Dweck (2000) where students incrementally build positive belief in their abilities even when faced with different challenges. Finally, metacognition is about students' self-awareness regarding their learning, and their ability to reflect in, on, and for practice (Yorke & Knight, 2004a, p. 4)

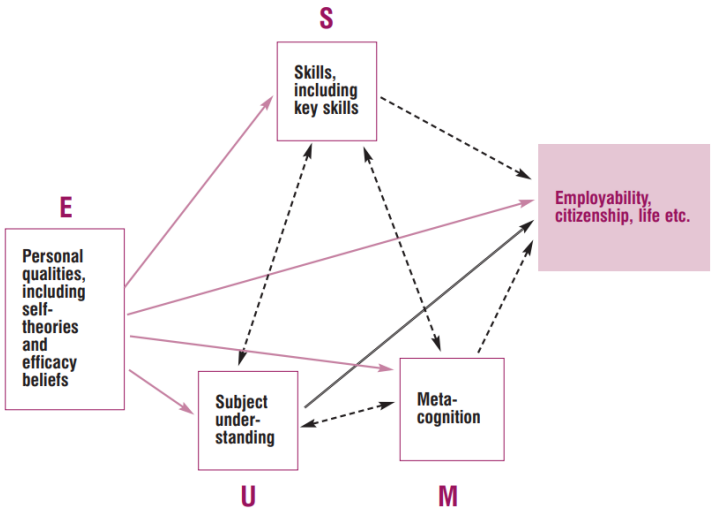


Figure (1) USEM model, (Yorke & Knight, 2004a, p. 3)

Self-efficacy and theories in the USEM model are purposefully shown as a permeating component through all other main components. Yorke (2010) explained that there are psychological implications to nurturing students' employability including,

> *Motivation, agency, self-belief, emotional intelligence, and so on. All these impact student achievements in one way or another. Hence in an employability-oriented curriculum, they need to be fostered (p. 4).*

In 2007, following the introduction of the model, Yorke and Knight investigated the matter of employability being transformed by considering personal qualities, moreover, they also examined if teaching and learning methodologies could be improved through the impact of research on efficacy beliefs and self-theories. Two questionnaires were developed to examine the above. The first 'self-efficacy questionnaire SEQ' was based on the importance of self-theories as self-efficacy is thought to be influencing performance. SEQ was distributed among 2269 students from five different universities in northwest England. While the second tool was 'the employability experience questionnaire EEQ' which has been based on the number of aspects that were explicitly or implicitly considered by higher education institutions while implementing the USEM model. From seven different institutions, 2072 students responded to the EEQ.

The finding of this study indicates that 'self-efficacy and employability' concepts are complex, and can't be easily measured; however, they could be described from the participants' perspective.

> *It seems likely that, in practice, a respondent might be implicitly coming at the item from a different implicit theoretical standpoint than we, as item-writers, did, and that different respondents were operating from different implicit positions (York & Knight, 2007, p. 167).*

Accordingly, Yorke and Knight (2007) concluded the concepts are difficult to be measured accurately by using scales, as they stated, the concepts "resist measurement but not other forms of description" (p. 168). They also highlighted the importance of using professional judgement.

"Our work recognises the role of professional judgement in the ways in which the development of employability is approached – and we would extend the point to cover pedagogy in general" (York & Knight, 2007, p. 168).

CareerEDGE model is found to be an alternative model that includes all the main factors of USEM, while presenting those in a clear and simple approach (Sumanasiri, Yajid & Khatibi, 2015). The model is comprehensive and widely adopted (Smith *et al*., 2014; Pool & Sewell, 2007; Sumanasiri, Yajid & Khatibi, 2015; Anas & Hamzah, 2017). Pool and Sewell (2007) emphasised the importance of each element in their employability model CareerEDGE model including self-efficacy. As they explained, "each component is absolutely essential and one missing element will considerably reduce a graduate's employability" (p. 280). The model presented in (Figure 2) shows the essential components required to develop students' employability and also indicates the relationship between those components. The components are:

1. Career Development Learning, which speaks to the education in a career that is essential for students to secure a job, be satisfied with their role, and be productive in their career.

Therefore, students must be provided with related structured programmes or embed the needed knowledge and skills in their learning opportunities.

2. Experience, as explained, “graduates with work experience are more likely to secure employment than graduates without” (p. 284). Therefore, work-based learning is recommended to be embedded or probably arranged around the students’ academic programmes.

3. Emotional Intelligence is also an essential aspect of this model. Though Knight and Yorke (2002, 2003) have acknowledged emotional intelligence as part of personal qualities however, Pool and Sewell (2007) argued that it “deserves a much higher profile” (p. 283) since Knight and Yorke (2003) list of personal qualities “could be suggested that it, in fact, subsumes many of the other personal qualities listed and some of the process skills listed too.” (Pool & Sewell, 2007, p. 283). Therefore, to avoid diluting the influence of the concept, Pool and Sewell dedicated a component to address students’ emotional intelligence. They recommended embedding this concept in the offerings and enhancing it in students.

4. The generic skills component was described by Bennett *et al.* (1999, p. 76) definition “to represent the skills which can support study in any discipline, and which can potentially be transferred to a range of contexts, in higher education or the workplace”. This suggests that higher education institutions should focus on their offerings as well.

5. Degree Subject Knowledge, Understanding, and skills component is proposed as a central component in the model. It is presented as a motivator for students to pursue higher education studies to gain a qualification and secure a job of choice.

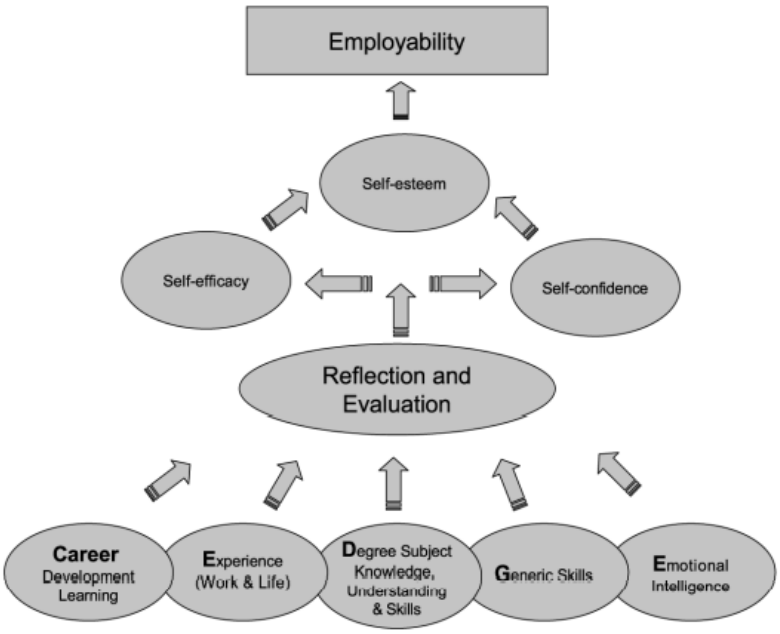


Figure (2) CareerEDGE model (Pool and Sewell, 2007, p. 280)

Besides the five components, Pool and Sewell (2007) highlighted the importance of providing opportunities for reflective practice and evaluating the learning experiences that took place during the student's learning journey.

They also stressed that,

> *Without these opportunities, a student is unlikely to give full consideration to how far they have come in developing their employability and what they may need to do in order to develop it further (p. 285).*

The model shows that reflective practice incrementally helps in developing students' self-efficacy, self-confidence, and self-esteem. Pool and Sewell (2007) described self-efficacy, self-confidence, and self-esteem as "the three closely linked Ss" (p. 285), and they explained the three closely linked Ss provide "a crucial link between knowledge, understanding, skills, experience and personal attributes and employability." (p. 285). The model as illustrated implies that self-efficacy is an essential component required to be enhanced in advance to help in developing students' employability. Pool and Sewell (2007) referred to Bandura's definition of self-efficacy and the sources of self-efficacy. Accordingly, they strongly suggested that the main goal of education should focus on developing students' intellectual abilities, self-efficacy, and intrinsic interests to equip them with learning skills that should help them throughout their life.

> *A graduate who believes they can do whatever is necessary is far more likely to gain a position and be successful in whatever occupations they choose than a graduate who does not have that self-belief (Pool & Sewell, 2007, p. 286).*

CareerEDGE is found to be a user-friendly model where the authors intended to design it in a way to explain employability to a non-expert (students and parents) highlighting the factors that contribute to the development of students' employability (Brent, Sanger & John, 2017).

To further explore the effectiveness of the CareerEDGE model, Pool, Qualter, and Peter (2014) developed a new tool 'Employability Development Profile (EDP)' which is tightly mapped against the CareerEDGE model. The questionnaire intended to measure the development of the students' employability. 807 undergraduate students participated in filling out the questionnaire from 2009 to 2011. The questionnaire was distributed post the implementation of interventions

meant to enhance students' employability such as workshops and courses not specific to a certain discipline. The distribution of participants were 319 male and 486 females with an age range from 17 years to 47 years. The outcome of the study addressed the intention of the researchers and attested to the concepts that comprised the model. However, similar to other studies, due to the absence of the qualitative aspect no explicit data is available to provide details regarding every concept including self-efficacy which could have enriched the study to understand the model and improved the developed tool better.

Besides the described two models above, there are other models encompassed beliefs about self, such as Bridgstock (2009) which was mentioned earlier, which focuses on career-related self-efficacy. Another model would be the UKCES (2010) which touched upon self-management skills that require levels of self-awareness and Hinchcliffe and Jolly (2011) model which focuses on self-confidence in one's abilities. However, the reason for choosing the USEM and CareerEDGE models as theoretical biases for the study was for their wide application (Sumanasiri, Yajid & Khatibi, 2015) and comprehensiveness in including employability-related factors (Pool & Sewell, 2007; Sumanasiri, Yajid & Khatibi, 2015; Pool, 2020).

Reflecting on the employability framework that was developed by Bahrain Polytechnic -explained explicitly in the introduction chapter- the framework was developed to focus on the measures that improve students' employability through curricular and co-curricular opportunities and the measures used to assure their attainment of employability through direct and indirect assessments. The framework also addresses external factors that improve students' employability. However, it does not acknowledge any self-related concepts or self-efficacy which help students the development of employability knowledge, skills, and attributes. In the report

of the Graduate Data Research Project (2018) that is conducted every 2 years at Bahrain Polytechnic, the responses of 256 graduates to the alumni survey and the 18 graduates who participated in the focus group revealed that though most of the graduates acknowledged the positive impact of their programmes and measures meant to increase their employability yet only 47.51% reported positively against self-esteem and confidence (Appendix 3). This is an alarming issue. Pool and Sewell (2007) explained in their model the importance of nurturing students' sense of self-efficacy in their skills to develop their self-esteem and confidence.

2.7 Self-efficacy and Bandura

Bandura defined self-efficacy as "beliefs in one's capabilities to organise and execute the course of action required to manage prospective situations. Efficacy beliefs influence how people think, feel, motivate themselves and act." (Bandura,1995, p. 2). As indicated in the definition, Bandura's work centred around self-perception of one's abilities whereas self-efficacy concept stemmed from "People's judgments of their capabilities to organise and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). In his work, he focused on the person's judgement of his/her abilities which requires self-awareness and the perceptual ideas that he/she has accumulated over time. Bandura (1993) also emphasised the importance of self-efficacy since "the impact of most environmental influences on human motivation, affect and action is heavily mediated through self-processes" (p. 118). He explained that an individual's perceived self-efficacy exerts its effect through four main ways which are cognitive, motivational, affective, and selection processes. With cognitive processes, Bandura (1993) theory addressed humans' approach to setting objectives and goals which is highly influenced by their self-

appraisals of their capabilities. In motivational processes, Bandura (1993) stated that human beings motivate themselves and direct their actions expectedly by the exercise of forethought. While, the affective processes, as per Bandura (1993), determines the amount of stress that human beings experience in what they perceive as difficult situations; this feeling is mediated by their sense of self-efficacy. Finally, Bandura (1993) used a relevant example to this study to explain selection processes, he stated, "career choice and development is but one example of the power of self-efficacy beliefs to affect the course of life paths through choice-related processes" (p. 135)

Similarly, Zulkosky (2009) believed that self-efficacy enables cognitive processes and performance in different settings, this includes the quality of decisions made by the students and their academic achievements. Individuals' sense of self-efficacy also steers their choices of activities that they would want to be involved in. For example, those with a high sense of self-efficacy consider hard tasks as challenges and they usually pursue those tasks to accomplish them regardless of the difficulties they would face (Zulkosky, 2009). This could apply to graduates who are expected to exhibit employability skills at their workplace. A person with a low sense of self-efficacy in his/her teamwork skills probably would avoid working with a group of coworkers. While another person who has a high sense of self-efficacy in communication skills could frequently be involved in different communication activities such as explaining a concept or maintaining the flow of a professional discussion. Jones (2016) stated that employability,

> *[…] has evolved from an economic interpretation of the ability to secure work, to a multi-faceted concept, including skills, self-efficacy, and self-regulated learning (p. 2).*

It has been suggested that there is a relationship between self-efficacy and academic performance among students from different educational levels (Black, Hall, & Darmawan, 2007; Choi, 2005; Kitsantas, Winsler, & Huie, 2008). Exposing the students to activities that will help the development of their self-efficacy and supporting them at early stages may help in the development of their sense of efficacy before reaching tertiary education. This will impact the development of their skills positively and will help the transferability of those skills to the next stages.

The reason why this study is based on Bandura's perspectives of self-efficacy is due to his work in understanding the effect of self-efficacy in optimising individuals' learning abilities through understanding the role of the mind in modifying their behaviour. This is aligned with the context of the study which aims to explore students' abilities and the way they perceive themselves concerning those abilities (Bandura, 1986). An issue that might be intriguing to the reader is that Bandura's definition and sources of self-efficacy are quite old, while studies usually refer to recent literature, theories, and conceptual frameworks. However, the originality, applicability, and continuity of his research in self-efficacy which is one of the key components of the Social Cognitive Theory that he contributed to till the time that he passed away in 2021 made well-known and current popular employability models refer to Bandura's work specifically.

In a mixed-methods approach study, Jones (2016) investigated the impact of postgraduate management education on students' perceptions regarding their employability. 450 postgraduate students from two universities participated in the quantitative phase while 10 of the surveyed participants were interviewed. Though the study examined the influence of the programme, most of the participants reported that the programme had a positive impact on their

sense of self-efficacy. The study revealed that the curricular learning opportunities should be tailored to increase students' perceptions of employability through educational modules. This helps the students to enhance their self-awareness and their sense of self-efficacy regarding their skills. The target group of the 'postgraduate students' is different from the target group of this study 'undergraduate students, yet a relational link between the two concepts ' of employability and self-efficacy' can be concluded in an educational setup. The result of this study showed that an employability-driven curriculum can improve students' self-efficacy.

However, in an argument by Bandura (1993), he stated that the sense of self-efficacy is not constant across all skills. People may have different levels of self-efficacy for different kinds of skills. They might have a high sense of self-efficacy in some areas while having a low sense of self-efficacy in other areas. This feeling might also differ according to the situation. Referring to the previous example, a person might have a high sense of self-efficacy to work as a member of a team however, the same person might also have a low sense of self-efficacy while delivering a public speech, which is a skill that might be intimidating as it requires some sort of performance in front of a crowd. In the Polytechnic, Graduate Data Research Project (2018), after 2 iterations of the employers' employability survey of the recruited Bahrain Polytechnic graduates (2017, 2018), the result shows that Bahrain Polytechnic graduates were demonstrating all the skills but at different levels at the workplace. However, the participants of the second iteration-2018, stated that some of the employed graduates had behavioural issues related to some of the skills such as public speaking. After follow-up calls, the participants explained that some of the employed graduates try to avoid activities such as presenting in front of people or to a specific audience other than those they know. Moreover, they added that some graduates for example,

though they were good in many skills still were poor in some such social skills related to how to deal with clients. (Appendix 3).

With regards to this study, at a higher education institution level, while planning and implementing measures meant to improve students' employability, it is important to address the concept from all aspects that might impact the concept including the psychological aspect. Moreover, as we are living in a dynamic world, the review of those measures and the adopted employability models are extremely important. The focus on self-efficacy is due to its importance in transferring skills from one stage to another, such as from the academic setup while studying to the workplace in the future job (Wood & Bandura, 1989; Morin & Latham, 2000)

As explained by Bandura (1994), optimising the effectiveness of any employability model, requires knowledge regarding the sources that enhance the sense of one's self-efficacy. self-efficacy can be enhanced by four sources. These are Performance Accomplishments, Vicarious Experience, Verbal Persuasion, and Emotional Arousal.

1. Performance accomplishment impact based on mastery of personal experiences where desired achievements increase the sense of expected mastery while repeated failure has an adverse effect. The interpreted outcomes of one's performance help in developing a sense of self-efficacy. Bandura stated that self-efficacy can be improved by performance-based and symbolic-based interventions.
2. Vicarious experiences imply an approach of observing others and being able to master certain tasks without being exposed to negative consequences. This approach builds positive expectations where individuals convince themselves regarding their ability to

perform like others by modelling them. As described by Bandura, this approach is not as invasive as performance accomplishment, therefore it has a less appreciable impact.

3. Verbal persuasion is an approach of implementing verbal efforts for behavioural change; people are persuaded to perform a behaviour by discussing their abilities that are required for the performance with other individuals. This approach is effective if the one who is providing the support is trustworthy, expert, and verbally attractive to be involved in discussing the abilities of a person (Petty & Cacioppo, 1986). It is used frequently however, its impact is weaker than one's achievements which tests the person's abilities in real-life situations.
4. Emotional and physical arousal is another source of information that people can gain regarding their abilities in a situation where the information can be utilised to inform future behaviour in a similar situation. However, a high level of disturbing emotional arousal is likely to suppress the sense of self-inefficacy.

Besides the sources of self-efficacy, Bandura (1994) identified four psychological processes that influence one's self-efficacy including cognitive, motivational, affective, and selection processes. These psychological processes are precursors to the sources of self-efficacy to be effective.

1. The cognitive process is about the thoughts that a person has and the processes that take place before starting a task.
2. The motivational process arises when a person is incentivised by the qualities that he attains, expected outcomes, and the aim of the performance.
3. The affective process is about the coping abilities of an individual and how much distress he can handle in challenging situations.

4. The selection process is a process where the final decision is made regarding the performance chosen to be carried out.

In a study by Cavanagh, Leeds, and Peters (2019), the sense of self-efficacy in communication skills was examined after applying the sources of self-efficacy according to Bandura to those who were enrolled in a business communication course. 97 undergraduate business students participated in the study. It was a quantitative design study, where two oral communication self-efficacy questionnaires were distributed among the students at the beginning and the end of the course. The questionnaires were only examining one skill of communication which is the presentation skills. The results showed that self-efficacy was positively and significantly correlated with students' performance in the course, and the increase in the sense of self-efficacy was positively and significantly correlated with the changes in the overall grades of the students. Though the overall findings support the study's hypotheses, a mixed-methods study would have enriched the findings by understanding the influence of those sources and if other contributing factors could have influenced the result. Therefore, in this study, a mixed-methods approach will be applied not only to explore students' perspectives regarding their sense of self-efficacy towards their employability but also to understand their perspectives regarding the employability measures that implemented by the institution.

2.8 Self-efficacy from the Perspective of other Researchers

Bandura's work (1997, 1986, 1993, 1994, 1997, 2004) on self-efficacy provided a base and a direction for many researchers to explore the concept further concerning the predictors of behavioural modification (Schunk, 1989) Over the years, researchers including Schunk (1991),

Yang and Lu (2007), Bezuidenhout (2011), Redmond (2013) have extended their studies building on Bandura's theory to identify other factors that may influence one's sense of self-efficacy. It has been found that the underlying factors provided by them are almost the same as the motivational process described by Bandura. Those factors encompass self-awareness regarding one's abilities, readiness to change, and desire to achieve the intended objectives. However, Dweck (2000) proposed an independent self-theory perspective with two broad aspects of the concept which are fixed/entity, and incremental/malleable. The first is the belief that one possesses a fixed amount of something (such as intelligence) and cannot be altered, and the second proposes that development is likely to happen and probable. Though Dweck's (2000, 2015) work is independent of Bandura's, the malleability of self towards growth as proposed by Dweck (2000, 2015) is consistent with Bandura's proposal that self-efficacy can be enhanced where 'malleability' is implied. This could be achieved by the sources of self-efficacy and motivation that are integral to enhancing one's efficacy. Concerning employability, according to Dweck (2000, 2015) self-theory is an incremental students' self-awareness of their sense of efficacy regarding their employability skills while having the readiness and desire to adapt measures that could help them to improve their performance of the skills. Self-awareness implies that students who are ready to improve their employability skills, for example communication skills, should be aware of the challenges that they are facing to exhibit the skill at a desirable level. Then plan for interventions and measures that will help them to overcome the challenges and meet the desired objectives.

Dinther, Dochy and Segers (2011) reviewed thirty-nine survey-based and interventional studies that investigated the effect of measures aimed to improve the sense of self-efficacy of higher

education undergraduate students from 1990 to 2011. The review included interventional studies with and without control groups. It also focused on the studies that linked to the sources of self-efficacy, this part will be referred to later in the sources of self-efficacy section. In general, the findings indicated that eighty percent of the studies showed a significant relationship between an intervention programme and students' sense of self-efficacy. It also argued that a mixture of methods and course elements, for example, course design, practice learning, discussions, and microteaching, had a positive influence on students' efficacy and linked to the four sources of self-efficacy. Schunk and Ertmer (1999) investigated how setting objectives and self-evaluation affects students' sense of self-efficacy in an employability-related skill which is the use of technology. A total of 44 undergraduate students participated in the study where all participants enrolled in an introductory course - Computer in Education. Before the beginning of the course, the participants reported that their computing skills are little to average. The course focused on computer application skills and consisted of 6 laboratory projects addressing 6 units. The study was conducted during the fourth unit which was about Hypercard which is considered to be a complicated unit. The Self-efficacy Achievement tool was administered twice as pre and post-tests. Each item of the tool was judged twice for frequency and competence using a Likert scale of 7 points. In the pretest, competence measured students' perception of how well they could perform the skill, while frequency measured how often the students would perform the skills. The post-test was identical to the pre-test however it was administered after a different assignment. The findings suggested a significant positive correlation between self-efficacy and achievements as well as self-efficacy and self-regulation skills regarding the use of technology employability skills to students who were exposed to self-evaluation opportunities. However, the

study found to address only one employability skill which is technology. Therefore, the findings of this study could only be significant to the specific skill. Moreover, this is another study that was quantitative based with no qualitative data that might enrich the findings and discussion.

Bouffard *et al.* (2005) investigated how students' self-efficacy has effects on learning and performance-approach goals for tasks related to problem-solving employability skills. 140 participants were divided into two groups where experimental manipulation was used to either induce 'learning goals' or 'performance-approach goals. The two groups were divided further where half of each group received feedback to induce low self-efficacy beliefs while the other half received feedback to induce high self-efficacy beliefs. The experiment was targeting the approach that students would take to discover the meaning of unknown words through the context of given sentences in multiple exercises. Through evaluating participants' reports, observing some of their behaviours while attending the exercises and their response to a retrospective survey, self-regulating and performance indicators were assessed. The findings of the study indicate that students who were assigned to the low self-efficacy group expressed more occurrences of negative learning self-regulatory experiences than their counterparts in the high self-efficacy group. While most of the high self-efficacy group students considered difficult problems as challenges. Given the chance to pick the level of difficulty of an additional problem, most of the high self-efficacy group students' while few from the low self-efficacy group stated that they would like to attempt to solve another difficult problem. Interestingly, the study reported that students from the low self-efficacy group had repeatedly rejected their right answers and as a consequence, in the learning goal condition, their performances were lower than those of the high self-efficacy group. The findings provide a clear understanding of the

responses of both, low and high self-efficacy groups to learning and achieving performance goals which speak to the significance of self-efficacy towards self-regulatory interventions.

In line with Bouffard *et al.* (2005) study, other researchers also investigated the influence of students' sense of self-efficacy on motivation, cognition, and learning (Carmichael & Taylor, 2005; Lent, Brown, & Hackett, 2002; Linnenbrink & Pintrich, 2003; Schunk, 2003). However, Bouffard *et al.* (2005) findings refer to self-efficacy effects on students' interest in performing tasks and its effects on students' determination in completing the tasks. Moreover, it also refers to students' goals for reform and the choices that they make. It also indicates that self-efficacy has a remarkable influence on how the students use their cognitive, meta-cognitive, and self-regulatory tactics in learning.

It is clear that a high sense of self-efficacy has an essential role to play in students' developing employability skills. Moreover, the availability of measures that improve students' sense of self-efficacy will have a positive impact on their employability skills. self-efficacy is also found to be one of the drivers that aids individuals to establish their career values and preferences (Coetzee, Schreuder, 2008). It is also believed to have an impact on coping with career demands and challenges (Fugate *et al.,* 2004). Preparing work-ready graduates is what Bahrain Polytechnic is missioned to do, and individuals with a high sense of self-efficacy would not only perform academically well but will also be equipped to exhibit their employability skills in the market.

2.9 Bandura's Sources of Self-efficacy

Since self-efficacy was found to be a precursor and integral to developing students' employability, it is important to understand the sources that help in enhancing students' self-

efficacy. As explained in section (2.3.1.) Bandura described four sources of self-efficacy that enhance individuals' beliefs of themselves. These are performance accomplishment, vicarious experiences, verbal persuasion, and emotional and physical arousal. Moreover, Bandura (2004) added influencing factors that could enhance an individual's sense of self-efficacy include the experience of achievements and social modelling. Dinther, Dochy and Segers (2011) performed a literature review and investigated thirty-nine empirical studies regarding students' self-efficacy in higher education. They have focused on reviewing the sources of self-efficacy that have shown an effect on students and according to the literature, they have identified that the educational sector has classified the factors that influence students' self-efficacy into situational and instructional factors. Their detailed findings will be presented in each source below.

2.9.1. Performance Accomplishment

Performance Accomplishment can also be referred to as 'Mastery experiences'. Pool and Sewell (2007) gave examples of mastery experiences that enhance students' self-efficacy and are in line with the employability agenda. Those include work placements, engaging with the real work environment or simulated workplace, accomplishing collaborative projects with real companies and industries, and career development learning activities or training opportunities such as applying for a job and sitting for interviews.

Hardy (2014) emphasised that performance accomplishment is the leading source of enhancing individuals' sense of self-efficacy, while Palmer (2006), described this source as the most powerful source because it provides authentic proof to the students regarding their abilities in performing tasks successfully. Dinther, Dochy and Segers (2011) found that a hundred percent of

the studies they reviewed stressed the importance of master experiences and the significance of providing students with authentic hands-on experiences.

They also added,

> *Goal setting combined with self-reflection, another self-regulation component, can provide students the opportunity of perceptions of learning progress, which can lead to mastery experience (p. 105).*

Their statement argues the significance of the metacognition role in developing one's self-efficacy, without it, students may pass the learning opportunities with minimum learning taking place. Wallacea and Kernozek (2017) encouraged tutors who are teaching undergraduate programmes to apply measures that enhance students' performance accomplishments as early as possible to increase the student's sense of self-efficacy.

"Research has generally shown that achievement goals predict individuals' motivation, self-belief, and performance" (Soylu *et al.,* 2017, P. 3). Bandura (1995) highlighted that besides this source being the most effective source of producing a strong sense of self-efficacy, it plays a crucial role in developing an individual's sense of employability as well. Even while searching for a job, a study by Lin and Flores (2011) shows that the two self-efficacy sources, performance accomplishments, and verbal persuasion are the most important predictors of job search by graduates. However, among those two sources, the performance accomplishment source is the stronger predictor.

Soylu *et al.,* (2017) conducted two studies to investigate the relationships among secondary school students writing achievement goals, writing self-efficacy, and effect on writing. The results

indicated that all dimensions of self-efficacy are correlated with liking writing which includes self-efficacy for conventions, self-efficacy for ideation, and Self-regulation self-efficacy. Those dimensions are meant to explore students' sense of self-efficacy in-depth and beyond their self-belief regarding writing performance in general. This helped the investigators to identify the only dimension that showed a correlation with writing performance, which is self-efficacy for conventions.

Bandura (1996) further explained that self-belief improves once a person can exercise control over his progression and accomplishment of desired academic outcomes. In three studies by Poortvliet and Darnon (2014), the results showed that undergraduate students with mastery goals who intrinsically are motivated do not just progress academically better, but also have significant positive attitudes towards helping their fellow students, in comparison to students with performance goals that depend on extrinsic motivation as a source of support. Helping fellow students is a behaviour that is related to collaboration, working in a group, and coaching employability skills.

In a study predicting students' achievement of learning outcomes in an introductory course of physics based on sources of self-efficacy disaggregated by gender, results indicated that females' achievements directly related to vicarious learning experiences, and there was no significant influence of verbal persuasion experiences. While predicting the probability of achievement among male students indicated by mastery experiences source only (Sawtelle, Brewe, & Kramer, 2012).

Performance accomplishment is relevant to the study as the Polytechnic adopted work-integrated learning teaching and learning approach, where all the academic programmes offered at the institution depend on the practical elements. This ensures the exposure of the students to apply the knowledge, and skills gained regularly. Therefore, performance accomplishment is a source of improving self-efficacy that can aid students in developing their employability skills. This will be explored through the study focusing on employability measures that are related to performance accomplishment such as project-based learning to understand students' perspectives regarding the measures.

2.9.2. Vicarious Experience

> *Raw or first-hand experience may not be the only mechanism by which students engage in experiential learning. There is a growing body of literature within higher education which suggests that students can use another's experience to learn: vicarious learning (Roberts, 2010, p. 13).*

Vicarious experience is referred to as the second source of self-efficacy. It takes place when an individual observes other people executing a task that he or she considers performing. The act of observing others succeeding or failing a task can affect that person's belief regarding his or her abilities to perform that specific task (Bandura, 1997). It is important for someone who had no previous experience performing the task and is uncertain about his abilities to observe others while performing a similar task (Bandura, 1997). Those people who are being observed shouldn't have a formal/instructional role such as a tutor, senior students teaching part of the course, or a practitioner (Boud *et al.*, 2001). "Students are said to learn vicariously" (Roberts, 2010, p. 13) by

discussing with others, resolving conflicts, going through challenges, getting support and scaffolding from experts in a non-formal manner (Topping, 2005). Learning from vicarious experience requires reflection and active listening, where students are thinking and learning together (Nehls, 1995).

As for Dinther, Dochy and Segers (2011), they found that there was mixed evidence for the effectiveness of vicarious experience sources and based on their literature review many questions were raised concerning the conditions that would fit the use of expert or peer models effectively.

In a longitudinal, multifaceted study by Rogers, Lewis and Edmonds (2017) engineering undergraduate students were paired with pre-service teachers, and BA teaching degrees to deliver an engineering education outreach programme. The programme aimed to influence school children by increasing their interest and engagement with science and engineering disciplines for pursuing higher education studies in the future. This model has been adopted since the researchers believe that the peer approach is important for undergraduate student engineers for two reasons, first where students try new experiences (experiencing mastery) and second by watching peers do the same (vicarious experience). The result has shown that student engineers enhanced their communication and teamwork skills through active learning by their peers during the engineering education outreach programme.

This source is relevant to the study as the Polytechnic main teaching and learning approach is problem/project-based learning where students are kept in groups and learn from each other so

that the less experienced can observe the more experienced student. Moreover, academic staff members are also observed in a certain performance.

2.9.3. Verbal Persuasion

As described earlier, verbal persuasion is the third source of self-efficacy. In this case, the purpose of communication is to verbally persuade individuals regarding the provision of skills required to master a task. This source is also used to provide feedback and evaluate one's abilities to apply more effort to goal accomplishment (Bandura, 1994). Moreover, usually, the vicarious experience follows verbal persuasion as theorised by Bandura (1986, 1997).

Bong and Shkaalvik (2003) stated that this source would be effective if the people who are providing it are perceived by students as trustworthy and the information that they provide is realistic. They also added, verbal persuasion is perceived as a form of evaluative judgement and it will only have an effect on efficacy if it is followed by a successful mastery performance. As pointed out earlier, Bandura (1997) highlighted that if the task is new to the students or when the success criteria are vague, they predict their level of efficacy mainly on social comparative information and verbal persuasion.

Matsui and Matsui (1990) assessed 163 Japanese first-year undergraduates at Niigata University to understand the predictive measures of their high school maths locus of control regarding the four sources of self-efficacy. The result shows that among the four sources, verbal persuasion as a source didn't contribute uniquely to self-efficacy in maths, while verbal persuasion with performance accomplishment, as well as the other sources, did. The finding is in line with Bandura's (1977) suggestion regarding this source which has a weaker impact on self-efficacy

than master performance. Bandura also identified that the value of persuasion as an addition to other sources facilitates the development of self-efficacy. In this study, besides looking into the measures implemented to enhance students' employability and have an impact on students' self-efficacy, verbal persuasion measures will also be explored about the other measures.

2.9.4. Psychological and Emotional Status

The fourth source of self-efficacy is physiological and emotional states as referred to by Bandura (1977) 'emotional arousal'. It is the interpretation of one's reaction to certain situations and mainly speaks to how a person cognitively evaluates the sources of information that he/she gains from those situations. It involves individuals' judgement of their competence, strength, and susceptibility to dysfunction (Phan, 2012). Many researchers have argued that an individual's emotional capability should also be examined as this may influence a graduate's employability. (Pool & Sewell, 2007; Jaeger, 2003; Liptak, 2005; Repetto Talavera & Pérez-González, 2007; Vandervoort, 2006).

Bandura (1986, 1997) explained in his work that individuals conclude their sense of perceived competence by blending the influences of different factors such as perceived capacity within, effort exerted, mission complexity, amount and kinds of help needed from others, perceived resembling of role models and forms of successes and failures. For example, a person with high self-efficacy in public speaking will view anxiety that manifests in a high pulse rate produced from an opportunity to participate in a stage forum discussion as positive and exciting, as opposed to negative and a sign of failure.

Though the Bahrain Polytechnic framework does not acknowledge self-efficacy, there are several learning opportunities in line with the sources that enhance learners' self-efficacy as described by Bandura.

2.10 Literature Review Findings

The literature review chapter has reported on broad key research studies related to the scope of this study. The review elaborated on the below seven questions that streamlined the search process:

- How is employability presented in the literature?
- In Bahrain, what drives employability, and how did the higher education strategy address the concept?
- Globally, what was higher education institutions' response to including employability in their agenda?
- What are the perspectives of Bandura and other researchers' regarding self-efficacy?
- How did employability models address self-efficacy?
- How did the sources of self-efficacy influence undergraduate students' self-efficacy?
- What are the research designs applied in studies similar to this study?

In conclusion, the review indicates that currently, employability at the global level dominates economic and academic strategies. To maintain sustainable economic growth, in recent years, employability has been considered one of the key elements that caught the attention of

policymakers in education. The concept has been addressed by national strategies and policies and then translated to frameworks to assess higher education institutions in embedding employability through different learning opportunities. Similar to many other countries, the Kingdom of Bahrain has a direction to embed employability as a pillar that will inform the achievement of its Economic Vision 2030. The direction was translated into a strategy that was clearly described at the National Higher Education Strategy (2016) launched by the Higher Education Council while the quality assurance processes were adopted by the Education and Training Quality Authority (BQA). Accordingly, higher education institutions incorporated innovative pedagogies that are based on student-centred approaches and other measures to embed employability in the graduate profiles offered by their programmers.

On another aspect, "students' self-efficacy has emerged as an important construct in educational research over the last thirty years" (Dinther, Dochy & Segers, 2011, p 104). The concept has been accepted as the main element in multiple employability models. Those models stressed the importance of attending to students' self-belief to develop their employability. To enhance students' sense of self-efficacy, Bandura (1986) identified four sources of self-efficacy: mastery experiences, vicarious experiences, verbal persuasion, and emotional and physical arousal. It is found that measures that address the sources of self-efficacy are directly linked to the measures that are expected to develop students' employability for example problem-based and project-based learning are measures embedded to enhance students' employability and those are also types of mastery experiences source of self-efficacy while working in groups and learn from each other and industry experts are measures known to enhance teamwork and those are also types of vicarious experiences source of self-efficacy.

However, the problem of higher education's ability in preparing individuals with the right skills for the market is still under scrutiny (Cheng & Ghulam, 2007 British Council, 2015; Marginson, 2019). The literature review has recognized this gap and identified pertaining issues to the problem as follows: the ununified interpretation of the employability concept by those who are expected to enhance students' and graduate's employability as explained in the Employability Definition section, the difficulty of embracing a comprehensive approach to embed employability at higher education institutions that recognize self-efficacy as highlighted in the Employability and Higher Education section, and the absence of contextualised frameworks and models at almost all higher education institutions in Bahrain that provide a structural approach to employability. At Bahrain Polytechnic, the problem of preparing work-ready graduates is critical to the mission. Through the institutional data, it is apparent that the graduates still have issues demonstrating some of the skills that are required by the market. After reviewing the literature regarding the measures and the frameworks that enhance the development of employability skills, it was clear that Bahrain Polytechnic Employability Framework does not recognize self-efficacy as an integral concept and consequently, the institution has not dedicated a strategy or measures to increase students' sense of self-efficacy. Therefore, this study is adopting Yorke and Knight (2004a) USEM model and Pool and Sewell (2007) CareerEDGE model as the theoretical base for the study to explore the perspective of students and staff members regarding the influence of the measures taken by the institution to enhance students' employability and self-efficacy.

Other issues revealed through the review incorporate the focus of the studies which addressed only a skill or two with self-efficacy with a lack of a comprehensive approach to the set of

employability skills. In terms of research methods and methodology, the majority of the reviewed papers applied the quantitative approach to explore specific areas related to employability and self-efficacy concepts. No studies were found to explore the scope of this study which addresses the undergraduate students' sense of self-efficacy towards a list of employability skills recognized by the institution. This might be explained as studies were conducted in contexts where a huge body of literature related to employability and self-efficacy concepts was established. While in the Kingdom of Bahrain, it was hard to find studies exploring those concepts. Therefore, the mixed-methods approach will be implemented in this study and will be explained in the next chapter.

2.11 Aim of the Study

This research aims to explore the Polytechnic role in meeting its mission of preparing graduates for the world of work, with a specific focus on the role of self-efficacy in developing the students' employability skills. The final-year students and staff members' perceptions will be explored to understand if the embedded employability practices and measures helped to enhance undergraduate students' sense of self-efficacy.

The overarching research question is:

What approach does Bahrain Polytechnic need to take to enhance the students' sense of self-efficacy to develop their employability skills?

The sub-questions are:

1. How do final-year undergraduate students perceive their sense of self-efficacy in their employability skills?
2. How do final-year students and staff perceive the role of the institution in developing undergraduate students' employability skills?
3. How do final-year students and staff perceive the curricular and co-curricular employability implemented measures and practices in enhancing the undergraduates' sense of self-efficacy?
4. From the final year students and staff perspectives, what are the other measures and practices that would improve students' sense of self-efficacy?

Chapter Three: Methodology, Design, and Procedure

3.1 Overview

Based on the reviewed literature, the approach to employability and self-efficacy studies demonstrated theoretical considerations and different methodologies for research. Some of these are dominated by the positivist approach where the use of surveys and questionnaires were mostly applied in situations that involve a large group of students to reach easy data that reflects on student perceptions of employability and/or self-efficacy. For example, Yorke and Knight (2007) distributed two questionnaires among a huge number of university students to explore their perceptions regarding:

1. the importance of self-efficacy concerning performance, and
2. The impact of their programmes in enhancing their employability.

While other perception related studies were also based on surveys (Murray & Robinson, 2001; Ballantine *et al*., 2007)

However, besides the quantitative approach, qualitative means were required as evidenced in many studies to allow the flow of students' voices and staff perceptions regarding employability and self-efficacy. Furthermore, the qualitative approach aids in drilling deeper to unleash the specific aspects related to the concepts and draw meaning out of different understandings. For example, Glover *et al*., (2006) applied this approach to explore students' perceptions about 'graduateness' and what it means to employment.

While designing the study it became apparent that it addresses two concepts which are employability and self-efficacy yet linked as explained in the literature review through the employability models. Therefore, the chosen methodology should provide a clear reflection and attention to what the study is trying to achieve.

This chapter provides an overview of my research philosophical stance (the ontological and epistemological stance), the implemented research methodology, and methods. Yet, the purpose of this chapter is to inform my understanding of the basis and the nature of what I am engaging with in this study. The chapter starts with section 3.2 which provides an overview of my philosophical stance, and the importance of displaying my philosophy as part of the research work. Section 3.3 will be providing details regarding my ontological and epistemological stances with the rationales that justify my position as a researcher. Then section 3.3 will introduce the research methodology highlighting reasoning principle for selecting the specific approach and the methods that I am intending to employ.

3.2. Research Philosophical Stance

In the beginning, besides literature recommendations, I find it essential to refer to my research philosophical stance as the researcher's position is also believed to inform the research methodologies and methods that are adopted by the researchers in their work (Lincoln, 1994; Tuli 2011). Moreover, the reasons for justifying my stance are:

1. to present the influencing factors which include my ontological and epistemological positions that could be found either deliberately or unintentionally permeated through the work of this study (Rokeach, 1973);

2. to display the set of values that I am committed to which usually, as described by Blunkett (2000), Carr (2000) and Greenbank (2003) are visible through the researchers' designs, methods, type of literature they chose to review, and the style of arguments in their work.

The ontological stance is the researcher's way to describing the truth. I believe that I am in a parallel position to the constructivist approach as per Piaget's explanation regarding 'knowledge'. He stated that knowledge shouldn't be thought of as a preexisting reality; it can only be produced from an interpretation process of an individual to his/her explicit observations and experiences (Peterson, 2012). While for research, I also believe in what Piaget referred to as a learning journey that is based on a dynamic knowledge construction (Peterson, 2012). In the context of this study, I will be explaining my constructivist position from two aspects. First, from my stand as a researcher, and second, from the participants' stand.

A constructivist addresses knowledge from an internal dimension to the individual him/herself. Fulford and Hodgson (2016) emphasised that human beings are understood as a result of their interaction with the world around them meanwhile meanings are formed based on those interactions. Moreover, besides the belief that the individual is the creator of meanings, it is assumed that those meanings are developed based on the integration of the newly thought-of ideas with previously gained knowledge (Stewart & Rigg, 2011). From my position as a constructivist, I believe that based on the employability-related experiences that I have gained since I joined the institution including the evolved understanding of the concept over time, accompanied by my active participation in developing the framework and the processes to embed employability at Bahrain Polytechnic; along with the in-depth research of the topic that I had to perform for this study, my perspective of employability has been transformed gradually

and drastically. This knowledge construction process has also provided me with an initial base to link employability with self-efficacy before even embarking on the findings of this study. For example, my initial understanding of employability as a concept used to represent the skills needed to secure a job only, such as (writing a CV, attending a recruitment interview, and searching for a suitable job) excluding the holistic understanding that encompasses knowledge and attributes. However, this perspective has changed. My understanding of employability broadened to acknowledge individual knowledge and attributes that are required to secure a job and bloom in it as part of the definition. Moreover, it is all that has been gained over time, during the individual's professional years, and used to develop in his/her different jobs purposefully. It Is important to highlight that as a constructivist, at each point in time, the developed understandings of the concept were real and true to me though they might not be in full adherence to other understandings. This is evidence that understanding evolved based on the retention of knowledge and experiences that I as a person gained over time.

My knowledge-related views as a constructivist from the participants' stand depend on the meanings students and staff members who participated in this study formed and constructed. It is based on their interaction with the various institutional systems, implemented practices, provided services, and the established environment to develop students' employability. It also includes the students' and staff's previous beliefs and ideologies that they have gained over time and helped to shape their understandings of employability knowledge, skills as recognized by the institution, and attributes concerning self-efficacy. For example, an aspect of the applied methods of this study explores students' perception of themselves about employability and the developed sense of self-efficacy through their participation in extracurricular activities. This

speaks to students' understanding that has been moulded over time due to their exposure to the activities. Moreover, it would reveal their beliefs about their ability, the approach, and the impact of the extra-curricular activities in developing their understanding. The meaning of this specific aspect has been constructed by each participant her/himself, and the value of the activities is owned differently by each of them.

Epistemological stance refers to the process that researchers apply to reach the truth. Regarding my stance, I believe my position is of a pragmatist. This paradigm is steered by situations, actions, and consequences that incorporate methods from the positivist and interpretive approaches used to understand existing problems (Rossman & Wilson, 1985; Creswell, 2014). It implies that I would lean towards adopting a flexible and adaptable approach of research design and I would tailor the methods to fit the specific context and objectives of the study which will help in answering the research questions. This approach "believes both methods of research are necessary and useful, and that these two methods can be used together when the research problem requires" (Sahin & Ozturk, 2019, p. 301).

The scope of this study would require the use of different methods from both the quantitative and the qualitative approaches. In the absence of baseline data regarding students' sense of self-efficacy towards their employability skills, I have applied the mixed-methods approach that is driven by the problem at hand as a research design (Rorty, 1991). This approach allowed me to select methods and tools that are most likely to yield meaningful and applicable results (Guba & Lincoln, 1994). The mixed-methods methodology helped me to understand students' perceptions and the meanings that they have formed from those understandings while my own understanding also contributed to the work of this study.

Pragmatism also has a profound impact on the data gathering process. As a pragmatist I value the integration of qualitative and quantitative methods; both approaches have their strengths and limitations (Tashakkori & Teddlie, 2003).Initially, I started with a survey to understand the students' perceptions of themselves to their level of employability and self-efficacy through quantitative data collection and analysis. Then, interviews were applied to build on what was previously collected by extracting detailed data regarding the employability-related approaches that were applied at the institution, and how those helped in shaping students' sense of self-efficacy. Interviews were also applied to explore staff members' understandings of the approaches and practices that helped students to develop their employability and sense of self-efficacy.

The methods applied in this study helped in collecting data that is relevant, reliable, and valid to address the research questions. Moreover, the methods contributed to the richness and depth of research findings, thereby strengthening the overall validity and applicability of the research.

The analytical process of data is also influenced by my positionality as a pragmatist. I believe that the value of research findings lies in its ability to inform action and produce tangible outcomes. The data analysis of this study is characterized by its practicality and utility. Consequently, the analytical process helped in generating findings that were applied to address a real issue which is the absence of the acknowledgment of self-efficacy as one of the main elements required to enhance students' employability skills. Moreover, it also helped in informing the recommendations for future decision-making processes. Pragmatism promotes an iterative and reflexive approach to analysis, encouraging researchers to continuously refine their understanding of the data and modify their interpretations in response to emerging insights that applicable to unique contexts (Denzin & Lincoln, 2018). In relation to this study the data analysis

process was a continuous process that refined again and again to reflect the understanding of Bahrain Polytechnic students and staff.

3.3 Research Methodology

Research in higher education accommodates various methodologies which are suitable to explore the problems in the field (Tight, 2003). Moreover, it is important to understand the underpinning methodology that has been applied in a study since, as emphasised by O'Leary (2017), those are the frameworks that govern the reasoning principle of researchers. "Methodologies are believed to offer principles of reasoning associated with particular paradigmatic assumptions that legitimate various schools of research. Methodologies provide both the strategies and grounding for the conduct of the study" (O'Leary, 2017, p. 11).

In this study, I am applying the mixed-methods methodology to explore undergraduates' and staff members' perceptions which will be explained in the next section. However, other methodologies were also explored to choose the most appropriate methodology considering factors such as the existing data, the scope of the study, the timeframe of the study, the ability of the chosen methodology to answer the research question.

An alternative methodological approach that could be implemented in this study is the exploratory qualitative design where the students' perceptions regarding the development of their sense of self-efficacy towards their employability skills from enrolment to graduation could be explored directly. In a similar study by Cavanagh *et al.,* (2015), the exploratory qualitative design was applied to explore the students' understandings regarding the development of their employability skills during the period of their studies. The study addressed:

1) the students' perceptions regarding their work preparedness with the skills that they attained during their studies,

2) the students' understandings of the expectations that their future employers' might have for them as employees, and

3) the student's perceptions of their abilities and if they believe that they can perform the skills competently.

The data was collected by applying the focus group method and the students provided thorough responses regarding their perceptions of their employability skills. This methodology would have been a good approach for the study however, the scope of this study is exploring the participants perceptions of two concepts. One of which is self-efficacy; this concept has no baseline data and not recognised by any of the institution's polices or documents neither by it's Employability Framework. The study also explores the participants' perceptions regarding the influence of the employability measures that implemented by the institution and if those helped to enhance their self-efficacy. The exploratory qualitative design could have helped in identifying the perceptions of those who will participate in the interviews, but it will not provide an understanding of the final year students regarding their sense of self-efficacy towards their employability skills, and it will not help in answering the questions of this study thoroughly, as there is no data available regarding the students' perceptions of their self-efficacy at all.

Another alternative methodology that could be implemented is the Qualitative Longitudinal approach (QL) which is "a rich and evolving methodology for exploring the dynamic nature of people's lives." (Neale, 2016, p1). QL approach involves the qualitative data collection and

analysis over a long period of time. The methodological approach allows a deeper understanding of the change that occurs to a certain social phenomena or perceptions due to the individual experiences that evolve over time (Holland & Reavey, 2016; Mills, & Bonner; 2019) QL methodology is useful to be applied in exploring complex social processes (Mills, & Bonner; 2019). Moreover, there is an increased interest in the QL studies as they may provide a better understanding about graduates' interaction processes and their career progression (Holland, Thomson, and Henderson 2006). The development of students' sense of self efficacy towards their employability skills is a complex process that would require time to be studied.

In a study by Stiwne and Jungert (2009), QL methodology was applied to explore engineering students' perceptions regarding their experience after graduation to investigate their preparation for the world of work, the challenges they faced and the adjustment they made to enter the workforce. All students were randomly selected and only the data of those who were interviewed four to seven times were included. The students were interviewed during their time at the university, while they were searching for jobs and during the transition period. The data collection process was between 1998 and 2007. The data was collected from 112 interviews with 20 students in total. The main findings of the study showed that there were differences in the way students perceive their preparedness by the curriculum, their future career plans, the way they search for jobs, how to become an employee, what makes them employable, and their job satisfaction. Also, the students argued that transferable skills and cultural values are better learned by co-curricular activities and at work, and that conducting a project at workplace was the best learning experience. They also expressed that during the process of conducting their projects they became more self-aware about their employability skills, specifically problem-

solving skills, and it also helped in expanding their knowledge base. The students also reflected on the development of their self-efficacy during the process. While on the job, they expressed that the most developed skills were their mathematical skills and specialized knowledge. They also highlighted the development of key employability skills including problem-solving, time-management, learning, and the ability to manage stress, demands and tasks. Though the study by Stiwne and Jungert (2009) is old, but it has been chosen as an example to show and explain that QL methodology has the ability to explore the changes that occurs to the peoples' perceptions over a period of time which allows researchers to understand complex concepts better.

If applied in this study, the QL approach would have helped to understand the impact of the employability enhancing measures on students' sense of self efficacy from stage to another. If QL approach would have been chosen, participants could have been recruited and interviewed in different points of time. Starting from year 3, followed through final year, then after graduation, and finally after being employed. The rich data from the same participants would have helped in understanding the development of their sense of self-efficacy based on the implemented measures. However, the QL approach requires time and resources. Conducting in-depth interviews over a long period time requires a substantial commitment from both the researcher and the participants (Mason, 2010). The longitudinal aspect increases the complexity and length of the study, necessitating long-term engagement and follow-up, which can be laborious and costly. Other challenges of QL approach concerns data management and analysis and retention of participants. QL research studies generate substantial amounts of data that require efficient strategies for storage and analysis, including maintaining consistency in coding

schemes and interpretations; this might also be affected by participant retention over time, leading to potential biased or incomplete data (Johnson, 2014; Carolan, Smith & Davies, 2016). Therefore, it is not feasible to apply QL approach in this study.

3.3.1 Mixed-Methods Approach

As stated earlier, in this study, I applied the mixed-methods methodology to explore undergraduates' and staff members' perceptions. The core assumption of this form of enquiry includes the combination of qualitative and quantitative approaches that provides a more complete understanding of the research problem than using one approach alone (Creswell, 2014, p. 4).

As stated by O'Leary (2017) The two main advantages of applying this methodology, which I found to be relevant, are:

1. the ability of this approach to manage the assumptions and biases that are based on the researcher's preference;
2. allowing inductive and deductive reasoning with a leverage of a wide range of methods that researchers may use to answer their questions.

For example, in a study about employers' perspective of graduates' employability skills in the UK, Moore and Morton (2015) implemented a mixed-methods approach. Their choice of the study design was influenced by their belief that "stream of surveys" with simple percentages being drawn up based on tick boxes (Frankham, 2017, p. 629) cannot explore the actual state and understanding of employability.

However, the mixed-methods approach may impose some challenges, for example, Sahin and Ozturk (2019) argued in situations where the quantitative and qualitative methods in the mixed-methods research are carried out concurrently, some researchers might find it difficult to execute the process seamlessly. Therefore, to manage this challenge, researchers are expected to be experienced in applying the principles of both methods and the approach to mixed data analysis. This is a critical issue that needs to be attended to carefully as it might disadvantage researchers who are new to the methodology while the main intention of the methodology is "aggregating the strengths of both methods and minimising the weaknesses of both to better explore a research phenomenon in the field of educational sciences" (Sahin & Ozturk, 2019, p. 307). Some of the other disadvantages of applying the mixed-methods approach include the amount of time and effort required by those studies, as those are considered to be more laborious, costly, and time-consuming than the studies with only one research method (Johnson & Onwuegbuzie, 2004). To manage the disadvantages of the mixed-method approach in this study, first, the execution of the methods was in stages as per the design of the study. Second, continuous contact was maintained with peers who were either doing their doctorate or completed their studies for their rigorous feedback and guidance. Additionally, a continuous reference to literature related to the mixed-methods approach was maintained to gain more understanding of the strengths, limitations, and the way to execute the approach. Regarding the financial implication, the implementation of the methodology was not costly, yet it was time-consuming due to all the other responsibilities, therefore time was carefully managed by following a project plan.

It is believed that the mixed-methods approach has a complementarity ability and that was the main reason for choosing it in this study. As per Greene, Caracelli, and Graham (1989), there are five main reasons to apply the mixed-methods approach, including Triangulation, Complementarity, Development, Initiation, and Expansion.

In the context of this study, the qualitative results are used to increase the interpretability of the collected data through a quantitative approach. This allows for a border view by incorporating both perspectives of the quantitative and the qualitative methods that will help in establishing in-depth knowledge regarding the understanding of employability and self-efficacy from the perspectives of the undergraduates and staff members. Initially, the approach will aid in extracting baseline knowledge regarding the scope of the study especially since the literature review did not reveal any national or regional studies that focus on undergraduate students' perceptions regarding their employability skills and the impact of higher education institutions that they are enrolled in. Neither did I find studies that address higher education students' self-efficacy or their experience of the institutional support systems that are meant to develop their sense of self-efficacy and enhance their employability. Therefore, it was reasonable in the first stage to use a survey. It serves the purpose of collecting baseline information regarding Bahrain Polytechnic undergraduate students' perceptions about the embedded institutional framework that support employability and also to know about their perceptions regarding their sense of self-efficacy. In the second stage, interviews were implemented to explore the 'Context' thoroughly to portray the rich description of the participants' perceptions and help to unfold the complexity of the matters (Bryman, 2006; Silverman, 2016).

3.3.2 Explanatory Sequential Design

To address research questions appropriately, it is important for researchers who decided to apply the mixed-methods methodology to determine the suitable type of methodology among the available classifications (Johnson & Onwuegbuzie, 2004; Sahin & Ozturk, 2019). Creswell (2014) mixed-methods classification emphasised four important elements in choosing the type of methodology. These are:

1. Deciding upon the dominating research methods based on the collected data;
2. The sequence of data collection;
3. Combined or separate data analysis approach;
4. The stage of mixing the data.

According to the listed elements and the six types proposed by Creswell (2014) which are:

1. The convergent parallel design
2. The explanatory sequential design
3. The exploratory sequential design
4. The embedded design
5. The transformative design
6. The multiphase design

In this study, the explanatory sequential design was implemented. This type allows the researcher to collect quantitative and qualitative data at different times and analyse each approach separately. Due to the research context and the absence of data, this type starts with the collection of quantitative data and is followed by the collection of qualitative data to provide

a deep interpretation of the quantitative data (Sahin & Ozturk, 2019). The explanatory sequential design was found to be the best fit for this study as no baseline data were available at the beginning regarding the self-perceived employability and self-efficacy perceptions of Bahrain Polytechnic undergraduates.

Therefore, data regarding the final year Bahrain Polytechnic undergraduates' employability and self-efficacy perceptions were collected through a survey. This method provided basic profile data regarding the undergraduate students perceived self-efficacy of their employability skills. Moreover, it provided information regarding the students' rating of the institutional measures, practices, and services that had been established to develop their employability. Then, based on students' and staff members' interests, they were approached to participate in the next stage which incorporates interviews. The data collected and analysed were used to build-up on the quantitative data to further explore in-depth understandings of their perceptions.

As an advantage, the design allows answering the research questions that require different methods and "capitalise on the complementary strength" (O'Leary, 2017, p. 167) of each approach. Moreover, the design helps in presenting the quantitative data in a detailed way by employing the qualitative approach. Furthermore, in describing the explanatory sequential design, in particular, Creswell (2014) emphasised that as a significant advantage, it is important to separate the quantitative and qualitative components.

3.4 Research Design

As mentioned in the introduction the sub questions pursued to be answered in the study are:

- How do the final-year undergraduate students perceive their sense of self-efficacy in their employability skills?
- How do final-year students and staff perceive the role of the institution in developing undergraduate students' employability skills?
- How do final-year students and staff perceive the curricular and co-curricular employability implemented measures and practices in enhancing the undergraduates' sense of self-efficacy?
- From the final year students and staff perspectives, what are the other measures and practices that would improve students' sense of self-efficacy?

3.4.1 Setting

This study has been conducted in a public higher education institution. Please refer to the introduction, section 1.7 regarding Bahrain Polytechnic.

Unlike other higher education institutions in the kingdom, Bahrain Polytechnic was established with a directive mandate to develop graduates ready for the market with employability and enterprising skills as stated in its mission "Bahrain Polytechnic produces professional and enterprising graduates with the 21st-century skills necessary for the needs of the community locally, regionally, and internationally" (www.polytechnic.bh). The institution adopted and developed different mechanisms to fulfil its mission that align with the national employability agenda. Accordingly, Bahrain Polytechnic is the fittest higher education institution among other institutions in Bahrain to answer the research questions.

3.4.2 Population and Sample

The participants of this study are Bahrain Polytechnic students and staff members. They were chosen as “both relevant and interesting to the researcher and contextually available” (Macintyre, 2012, p. 3).

For the survey, the targeted population was the undergraduate students of Bahrain Polytechnic, and the sample was aimed to recruit the final year students of 2019. An argument may be imposed as to why Bahrain Polytechnic graduates were not targeted or intended to be included in the overall sample. This is to ensure that the responses of the participants who are filling out the survey are based on their perception of their recent exposure to employability-related approaches implanted by the institution without being influenced by external factors. The inclusion criteria for the sample also focused on the seniority of the participants. This is to ensure the participants' exposure and familiarity with the employability-related approaches for at least 3 years. Students were included irrespective of their age, gender, programme, working status, current academic performance, school performance, completion of foundation programme, and involvement in co-curricular activities.

As presented in table (1), the total number of participants was 103. The sample was largely represented by females (n=64, 62.1%) with those whose age ranges between 19 and 25 years (n=94, 91.3%). Participants currently studying in Business major dominated the sample as they alone were (n=45, 43.7%) of the total subjects. This could be because the Business school is the largest among the other schools at the Polytechnic.

Table (1) Demographic data of the students who participated in filling out the survey

Variable	Categories	N	%
Gender			
	Male	39	37.9%
	Female	64	62.1%
Age Group (Years)			
	19-22	48	46.6%
	23-25	46	44.7%
	26 & above	9	8.7%
Academic program			
	Business	45	43.7%
	Logistics	16	15.5%
	Engineering	13	12.6%
	ICT	12	11.7%
	Visual design	6	5.8%
	Web media	11	10.7%

For the interview, Bahrain Polytechnic undergraduate students and staff members were the targeted populations. Students were considered since they can reflect on employability-related approaches including the institutional curricular and co-curricular learning opportunities provided to enhance their employability. Moreover, these opportunities are directly affecting them; and they can also elaborate their understanding of those opportunities concerning their sense of self-efficacy. Staff members were also targeted due to their active role as facilitators in enhancing students' employability and having a direct impact on students' learning. Therefore, their understanding will provide in-depth knowledge regarding students' employability and self-efficacy.

A sample of each group has been determined with certain inclusion criteria. The recruited students were defined to be Bahrain Polytechnic students from Business and Engineering programmes who completed the initial survey and showed interest in participating in the interviews. The two programmes were selected to have the perspectives of samples from two extremely different programmes at the Polytechnic. The intention of maintaining gender balance and including participants with different responses to the survey (high, moderate, and low sense of self-efficacy) was extremely difficult to achieve because of many reasons. First, per programme gender lateralization was hard to control during recruiting time. It has been found that most of the students that showed interest and provided consent to participate were females from the Business programme while those from the Engineering programme were mostly males. The second issue was related to selection based on different responses. It was hard to achieve since most of the students who showed interest were from the categories of high and moderate sense of self-efficacy, moreover, students who reported a low sense of self-efficacy were few.

To obtain a comprehensive view regarding the concepts of the study, the targeted staff members were identified as the following categories: academic staff members from the School of Engineering and the School of Business, members from the senior academic management team, and professional education services.

3.4.3 Sample Size

The survey targeted all final-year students, however, 40 % of the students responded. Regarding the interviews, there was no definite number intended to determine the sample size at the beginning of the study. However, a cap was expected not to exceed 12 - 16 undergraduate students who have completed the survey from both Business and Engineering programmes. While the same principle applied to the staff members with an aim not to exceed 12 staff members for the interviews including all categories. Data saturation was the target to determine the sample size and to ensure the credibility of the outcomes. In qualitative research, data saturation indicates the achievement of a sufficient amount of data that was meant to address the research objectives and reach theoretical saturation; it is the point at which collecting additional data no longer provides new or meaningful understandings or information to the research questions or themes being explored nor it will contributes to the thickness and richness of the findings (O'Leary, 2017; Saunders *et al*., 2018). Researchers judge if they reached to data saturation based on the richness and redundancy of the data collected, yet there are certain indicators that can help the researchers to determine if they reached to data saturation. These are:

1. Repetition: When themes, patterns, or concepts emerge repetitively across the participants or data sources, it suggests that saturation may have been reached (Guest, Bunce, & Johnson, 2006; Saunders et al., 2018). For example, 'The Developmental Role of the Institution in Preparing the Graduates for the Market' theme emerged as the interviewees' responses were repeatedly showing an overall positive perception regarding students' preparedness by the institution. Another example is regarding the theme that addresses students' employability kills. Though the employability skills

development level differs among students and differs for each skill, yet the theme clearly emerged to support that all the students' employability skills development were positively influenced by the institution.

2. Theoretical coherence: When the data consistently aligns with or confirms existing theories or models in the field, it may indicate that saturation has been achieved (Fusch & Ness, 2015). In the study, constantly, all the interviewees emphasised that the institutional curricular opportunities helped the students to be prepared for the market. This is aligned with the literature regarding the approaches higher education institutions applied to develop their students' skills for the market. It also showed that students praised curricular and co-curricular practices to enhance their sense of self-efficacy that aligns with the literature regarding the four sources of self-efficacy.

Variation: The presence of diverse perspectives or contradictory findings within the collected data can indicate that different facets of the research topic have been sufficiently explored (Francis *et al.*, 2010). The data were also varied while addressing the above aspect regarding the influences of the curricular opportunities, though all interviewees emphasised that the institutional curricular opportunities helped the students to be prepared for the market, yet the students expressed some negative perceptions regarding some of the curricular practices that requires to be improved. Another example is the variation regarding the development of students' employability skills where the participants highlighted different skills, and each reflected on their strengths and weaknesses based on their perspectives of the effect of different measures and practices that helped the development of their skills. The third example is the participants' perspectives regarding the effect of the co-curricular measures on the development

of their sense of self-efficacy. The interviews showed that engineering students' perspectives regarding the effect of co-curricular measures is the opposite of the business students' perspectives. Therefore, I stopped the interviews when I reached the saturation point after achieving the total students sample size of 8 (4 students from each, Business and Engineering programmes). While for the staff members, I had to stop when I reached the total sample size of 10; categorised as 3 academic staff members from the Engineering programmme and 3 from the Business programme, 2 members from the senior academic management team, and 2 from professional education services' staff members.

3.4.4 Methods

For the first stage of the study, I used a survey to collect students' employability and sense of self-efficacy data, while for the second stage, I implemented the interview method.

Surveys are known to reach the targeted sample in a convenient period and conveniently obtain the data. However, there were challenges that I had to endure and plan for:

1. obtaining a representative response rate, and
2. ensuring completion of the survey.

Sense of self-efficacy is highly individualised and complexed to assess, therefore it would require a specialised approach or a method to assess students' sense of self-efficacy in their employability skills. The search of the literature indicated that there are many tools to examine students' and graduates' employability skills however this study is looking beyond the attainment of those skills. At the first stage of the study, a tool would be required to collect students' sense of self-efficacy regarding their employability data. Employable Skills Self-Efficacy Survey (ESSES)

was the only tool that was found to serve the purpose. The tool explores students' perception of efficacy regarding the attained employability skills. Ciarocco and Strohmetz (2018) developed the tool to gain knowledge regarding their students and help psychology department tutors to nurture the development of their students' employability skills within their programmes. Clearly, the context of the tool is specialised and differs from the nature of our programmes, but the domains covered by the tool are relevant to the identified employability skills at the Polytechnic. Another reason for choosing the tool is that the reliability and validity of the tool were tested many times. Ciarocco and Strohmetz (2018) tested the tool in 3 iterations. The first study was conducted to evaluate the internal consistency of the items. This helped them to identify potential items to be eliminated from the final version of the survey. While the second study was a repetition of the first study where the internal consistency of the items was evaluated in addition to examining the tool's test–retest reliability. The findings indicated that the internal consistency from pre and posttest data collections were found to be consistent with those reported in the first study. Similarly, the test-retest reliabilities were strongly evident for each subscale with correlations (r) .76 to .89. The third study examination was stretched beyond the tool level to explore self-efficacy in each of the skill domains in correlation with measures related to workplace self-efficacy and this study is irrelevant to the focus of my study.

The ESSES (Ciarocco & Strohmetz, 2018) is a self-administered survey that evaluates respondents' perceived sense of self-efficacy regarding their employability skills. The survey consists of 51 items that assess four domains of employability skills, including communication (16 items), analytical inquiry (9 items), collaboration (10 items), and professional development (16 items). The survey domains were cross-checked with the Bahrain Polytechnic definitions of employability

skills that were approved in 2010 and it has been found that 3 of the domains were defined clearly those were communication, collaboration, and analytical skills. However, the professional development domain is indirectly addressed in the polytechnic documents. For example, professional development was traced in the learning outcomes of the programmes, and the strategic plan. Therefore, the decision was made to include all 51 items of the survey addressed by the four domains.

Permission from the main author of the survey was obtained (Appendix 4) and a web-based survey was developed using Google form on my Unidrive to maintain the security of the data collected and to ensure the confidentiality of the participants.

Moreover, since the study is about the participants' perceptions regarding the embedded institutional curricular and co-curricular services that are meant to develop their employability skills, 13 newly developed questions to the web-based survey added. A colleague who teaches English and is currently involved in the employability project as a curriculum development advisor checked the added questions for content validity. The items were also reviewed by another curriculum development advisor colleague who is involved in executing the employability agenda at the institution. Subsequently, the web-based survey was developed including two parts: part (1) which consists of newly developed questions, and part (2) the adopted tool the Employable Skills Self-Efficacy Survey.

The newly developed questions were exploring students' perceptions about:

1. if the programme that they were enrolled in helped them to develop their employability skills. The answer to this question would provide students' general impression of their programmes.
2. If the curricular measures and practices such as the Problem/ Project Based Learning teaching approach, the final year industrial project, the elective courses, and reflective practice helped in the development of their employability skills. Those questions are directly asking about the measures that the institution adopted to enhance students' employability.
3. If the students were utilising services such as the Career and Employment Centre services and Academic Advising services as those services are also meant to support the students' development of employability skills.
4. If the students are participating in co-curricular activities and if those activities are believed to develop their employability skills.

In research, the design of surveys is driven by many factors. These factors are considered to ensure the collection of accurate and relevant data (Smith & Johnson, 2020). The factors as listed by Smith and Johnson (2020) were considered in the design of the survey of this study, which are:

1. Research objectives: Surveys are designed to align with the research objectives and the questions being investigated. The questions of this study focused on exploring the students' sense of self-efficacy towards their employability skills as well as to understand the influence of the implemented institutional employability measures on the development of their employability skills. In the absence of data regarding students'

sense of self-efficacy at the institution, there was a need to choose a method that would help in collecting this data first. A tool that precisely measures students' sense of self-efficacy towards their employability skills, instead of two separate tools that measure employability and self-efficacy concepts separately. The reason for specifically targeting a tool that designed to measure sense of self-efficacy towards employability skills is because this study is not exploring students' sense of self-efficacy or employability in general or separately. It is focusing on exploring students' sense of self-efficacy towards specific employability skills. Therefore, as mentioned earlier the Employable Skills Self-Efficacy Survey' (ESSES) survey by Ciarocco and Strohmetz (2018) was adopted as the items of the survey were aligned with the data intended to be collected for the research questions. Moreover, the newly developed questions were also added to answer the research questions and to collect quantitative data that will help in understanding the students' beliefs regarding the impact of the employability-driven measures.

2. Target population and sampling methodology: The survey is tailored to be relevant and applicable to the final year students of Bahrain Polytechnic which is a representative sample of the target population being studied in this study.

3. Data type: The type of data needed, quantitative or qualitative, influences the survey question formats. Closed-ended questions are often used for quantitative data, while open-ended questions may be used to gather qualitative insights. However, as described in the methods section the survey was designed to gather closed-ended quantitative data.

4. Question wording: Thorough attention is given to the phrasing and structure of survey items to ensure clarity. For example the newly developed questions were worded to understand students' perceptions regarding their preparedness by the programme that they were enrolled in "I believe the program I am enrolled in helped me to develop my employability skills" another example is a question that was developed to explore if the students are influenced by the curricular measures such as the project based and the problem based learning methodologies " I believe that problem/project based learning teaching approach which is applied in class room helped me in developing my employability skills".

5. Response options and data analysis: The range and the type of response options provided influence the design of the survey. Since the responses that were expected from the students targeting their level of agreement with the items adopted from (ESSES) survey by Ciarocco and Strohmetz (2018), the survey was designed to apply the Likert scale of 6 points. Another type of response option was also applied for some of the newly developed items which requires the students to agree or disagree with the items. Moreover, the survey was designed to helped in gathering the information regarding students who are interested to participate in the interviews.

6. Ethical considerations: the survey was designed to apply ethical guidelines, to protect the rights and privacy of students who responded to the survey.

The web-based survey was piloted among 5 participants who were not from the sample. The pilot was conducted to ensure clarity and relevance of the items, as well as smoothness of answering.

The feedback was mainly related to semantics, the use of the correct question format from Google form, and the smooth progression from one question to another when items are depending on earlier questions.

For the second stage, the interview method was applied as a tool to collect qualitative data for its benefits of having the capacity to gather data that satisfies the aim of the study. Interviews are applied when certain issues or concepts would require to be explored further and nurtured by illustrations of thick and detailed descriptions rather than just by statistics that can be poorly interpreted (Beck & Manuel, 2008) In this study, the in-depth exploration of participants' perspectives implied the use of interviews to allow the flow of data, however, non-verbal data was not collected as this would require an experienced researcher to interpret both verbal and non-verbal while asking the questions without missing anything.

Semi-structured type of interview was applied since this type of interview provides some guidance through pre-set questions. Yet, it also provides a space for exploring the topic beyond the structured questions. The semi-structured interviews helped me to unfold the participants' perceptions regarding employability and self-efficacy beyond the pre-assumed practices and systems that were believed to develop students' employability.

Two sets of questions were developed, a set was directed to undergraduate final-year students while the other set was directed to staff members. In general, the progression of the questions was intentionally designed to create a relaxed atmosphere, starting with some fairly general questions and then gently encouraging deeper reflections on their perceptions and experiences. The questions were also arranged in such a way that they prompted responses against themes

that could be compared to the theoretical underpinning presented in the literature review of this research.

Similar to the survey items, the questions of the interviews were reviewed for content validity and the use of proper language. This was performed by an academic staff member who is currently involved in the employability project as a Curriculum Development Advisor. While setting the questions, the intention was to develop them broadly to allow participants full expression with the use of some probing techniques. This approach provides flexibility for participants to enrich the findings.

The set of questions that were developed for the students starts with a question that explores their perception regarding the institution and if the institution has prepared them for the world of work. This question is broad, and it does not directly obtain students' perspectives regarding their skills, self-efficacy, and the impact of the institution in developing those aspects in them. The response to this question is expected to provide some indication regarding the participants' overall perception of themselves and the institution.

Then, the following four questions were related to the questions asked in the survey. Those questions were directed to explore students' perceptions regarding the four domains of employability skills including communication, analytical inquiry, collaboration, and professional development. The questions were probing the students to express their opinion regarding the institutional journey, and if it helped them to develop their skills. Their responses were expected to provide information regarding the institutional influences and probably external factors that made them perceive themselves the way they do at the time of the interview.

Then a question regarding the support that they received, if any, from the institution and how those enhanced their beliefs about themselves was asked to capture the missing information that might be missed in the previous responses. The last question was drafted to explore the gaps in the institutional services from their perspectives and how those, if provided, promote students' beliefs about themselves. This question has also the ability to provoke the participants to reflect on their sense of self-efficacy and propose services that would have helped them to improve this sense if they were available. There were more questions added to the students' list of questions as a result of the mock interviews. Those will be addressed later in this section.

Regarding staff questions, the list starts with a question exploring their perception of the institutional ability in preparing students for the world of work. This question is general, and it does not directly obtain the staff perspectives regarding students' employability, self-efficacy, and the impact of the institution in developing those aspects in the students. Staff responses to this question are expected to provide some indication regarding their perception of the institution.

The second question addresses the way the institution helped the students to enhance their beliefs regarding their skills. This question was asked to capture the participants' perceptions' regarding the practices, services, and approaches that are institutionally embedded including the structured and unstructured means. Then a question regarding the appropriateness of the approaches in promoting the students' beliefs was asked. The intention was to allow the participants to evaluate the embedded structure, and this might help them to state the missing approaches that could enhance students' beliefs regarding their skills. The fourth question captures the participants' beliefs regarding the students' abilities in showcasing their skills to

prospective employers. The question can identify students' abilities from the staff members' perspectives. This could relate to the embedded structure that is institutionally built to enhance students' skills. The fifth question explores staff perspectives regarding the institutional support provided to the students in being able to showcase their skills. This question was asked to ensure that staff members have expressed their understanding clearly and elaborately regarding the institutional support system. The last question was addressing the institutional gaps in the services that would help in promoting students' beliefs of themselves and how these could be provided.

Mock interviews were conducted for both students and staff members to evaluate the developed questions, assess if any modifications are required or more questions to be developed, and observe myself while conducting the interviews to maintain a unified performance across all the interviews for students and staff members. Accordingly, two participants were recruited from each category for this purpose. The students who participated in the mock interviews were third-year students and they were targeted because of the time they spent at the institution and their exposure to the services supporting the development of employability. Their perspectives helped in confirming the appropriateness of the questions to meet the purpose of this study. In regards to the staff members, a head of school as a senior academic staff member and another professional academic staff member participated in the mock interviews. All participants were given the information sheet in advance as well as the consent sheet. After the interviews, each was asked about the clarity of the questions, and if they felt comfortable with no pressure during the interview. The interviews were held comprehensively exactly as intended to be held for the sample participants. Consents were signed and the interviews were recorded.

The feedback received from the pilot phase shows that the participants were positive regarding the clarity of the questions, the length of the interviews, and their level of comfort while they were being interviewed. However, a comment was raised by a student who suggested adding some follow-up questions to the question list. The student justified the suggestion with the following reasons:

1. the unlisted questions were significant when they were asked during the interview,
2. the questions would require some time to think about them, therefore it is better to include them in the list of questions that are given to the students in advance.

The added questions were linked to their sense of self-efficacy and if the institutional curricular and co-curricular services that were meant to enhance students' employability had an impact on their sense of self-efficacy.

3.5 Ethical Considerations

The approvals to conduct this study were obtained through Sheffield University and Bahrain Polytechnic ethical procedures. The approved research information sheets and consent documents were used as soon as the approvals were obtained. The study was conducted as per the approved structure, during its time frame, and the participants of the study were not categorised as vulnerable, therefore the study is considered to be a low-risk study. In this section, I will be reflecting on the ethical issues that have arisen as a result of, and during this study.

3.5.1 Protection of the Participants

There were no issues related to personal safety or potential harm to the identified participants while designing for the study or during the process except for an issue related to my position as Director of the Academic Development at Bahrain Polytechnic. This might be perceived as a state of authority by some staff members who I work with at the institution and agreed to participate in the interviews or even the students. To act within the capacity of a researcher only and to maintain fairness and reduce the negative consequences of the above issue, I have applied certain techniques. These include:

1. maintaining a reflective journal that allows continuous reflection on my feelings and thoughts throughout the study (Tilley, Chambers, & Mackenzie, 1996.) Emotional intelligence requires self-awareness and the ability to be considerate within interpersonal relationships (Hurley, 2008). The use of a reflective journal increased my self-awareness throughout the continuous process by monitoring my thoughts, feelings, values, and behaviour which could have been affected by my current role. This approach provided me with the insight to regulate my responses and interaction with the participants,
2. the data and its analysis were peer-reviewed,
3. the recruited staff members were randomly selected, and the first respondents were contacted first,
4. to ensure the consistency of my performance, I conducted mock interviews where I practised my role as a researcher in advance.

Yet, it is important to highlight that my background and position could enhance the rigour of this study as an 'insider' where I, as the researcher, share a common language and culture with research participants (Irvine, Roberts & Bradbury-Jones, 2008, p. 35).

Moreover, to reassure staff members and students regarding their involvement in the study, explanations were added to all information sheets that they will not be disadvantaged in any way. For example, in the Interview Participant Information Sheet for Staff members, this statement has been added: "participation neither will affect your performance appraisal or will have any kind of impact on your future career development".

Also, participants were asked to express any kind of discomfort, risk, or disadvantage, if experienced, to me as immediately at the time of occurrence. For more information, they were directed to ask me, the supervisor, or the director of the programme. Participants were also informed that they have the right to withdraw from this research as they wish, without any explanation provided.

3.5.2 Data Confidentiality

The final transcriptions of each interview were shown to the participants to gain their approval before incorporating it into this research. This is to ensure the trustworthiness of the gathered knowledge that leads to the result according to the participants' representation in the recordings.

Regarding confidentiality, all information collected about the participant during the study was kept strictly confidential as mentioned in the information sheets. Nonetheless, any data collected from the web-based survey and the recorded interviews were transcribed, anonymized, digitally stored, and retained by myself. The data from the surveys will be stored for at least five years on

a password-protected computer. Regarding the records of the interviews, the data were stored on Unidrive and were deleted after data analysis immediately. The recordings were carried out via a recording device, and each was immediately uploaded to Unidrive after the interview on a password-protected computer. After every upload process, the recording of each interview was deleted from the device. All the participants' personal information from the sessions was removed or changed to a pseudonym. Access to the recordings was only available to me and my supervisors. The data was only used as part of my Doctoral research. Where appropriate, quotes were used to illustrate research findings in the thesis, and in any subsequent publications, however, no identifying information will be included.

3.6 The Procedure

In this section, the sampling method, the approaches applied to recruit participants for the survey and the interviews, as well as the approach taken to conduct the interview, will be presented.

3.6.1 Sampling Method

For the survey sample, the non-random, purposive sampling strategy was applied to recruit the participants. The reason for selectively choosing the target sample is not to represent or generalise the outcome of this study on all undergraduate students of Bahrain. On the contrary, I have handpicked the sample based on my judgement of their likelihood of experiencing measures and practices meant to develop their employability to answer the research questions (Cohen, 2004). The sampling method will satisfy the need of understanding the participants' perceptions regarding the usefulness of the embedded systems that anticipated to develop their employability at the polytechnic. The eligibility criteria were ensured to be met and all students

who were not meeting the criteria were excluded. The total number of eligible participants was 270 students according to the registry office.

For the interviews, a non-random, purposive sampling approach was also applied. To obtain qualitative data. It has been specified that purposive sampling is a logical approach to recruiting participants that can provide data in line with the queries imposed by the study (Patton, 1990). Students were recruited based on the time spent at the institution to ensure their exposure to the services provided by the institution and the programmes that they were enrolled in. Those students were from the Business and Engineering schools. Similarly, to ensure staff familiarity with the systems and practices that support the development of undergraduate students' employability, the targeted members were those who worked for more than three years at the Polytechnic and showed interest.

3.6.2 Recruitment of Participants

Students' recruiting procedure started by contacting the Directorate of Student Registry requesting for all final year students' contact emails to send them the survey. After receiving 271 students' emails, a thorough check was conducted to ensure the eligibility of the students. Accordingly, each Bahrain Polytechnic head of school was contacted to cross-check the enrolment of the final year students in their programmes against the list received from the registry. Only one student was excluded, who has registered as a student but is not at the Polytechnic anymore. So, the actual targeted sample that received the survey is 270 students. The survey was sent via email that includes: the link to the survey which consists of the consent (Appendix 5) and the participant information sheet (Appendix 6) that was attached to the email.

The plan was to open the survey from the 29th of May till the 11th of June 2019. However, after sending out the survey, the response rate was low. Accordingly, several techniques were applied to recruit more students to fill out the survey. The first technique was approaching students by different means including the Career Employment Centre, Head of Schools, Programme Managers, Bahrain Polytechnic Student Council, and Bahrain Polytechnic Volunteer Club. The second technique was by extending the opening of the survey and sending multiple reminders to the students. Accordingly, the opening of the survey was extended twice until the first week of July 2019, which is the end of the semester to allow more students to participate in filling it. The implemented techniques helped to achieve a response rate of 40% (103 students). This response rate is significantly high in comparison to the students' response rate to other annual institutional surveys such as the courses and the institutional services surveys.

For the interviews, each group of participants had its separate recruitment procedure. As for the survey email that went out to all final-year students', there were items added to the survey to identify students who were interested to take part in the interviews. Those items were developed mainly to obtain essential information including students' interest to participate in the interviews, information about their discipline, contact details, and preferred calling times. Data from interested students were collected and organised in a database sheet to start the selection based on the previously listed criteria in the population and sample section. This process started as soon as the email was sent out to all final-year students. Students were called on the basis of 'first come first served' as they were filling out and submitting the survey. The interview time, date, and venue were organised for every student according to their convenience. Moreover,

before the interview the students were sent the consent (Appendix 7), the information sheet for the interview (Appendix 8), and the questions (Appendix 9).

The staff members' recruitment process started by sending an email to the Human Resources Directorate requesting the emails of staff who completed 3 years at the polytechnic. Moreover, their area of work was also requested to categorise them according to the categories mentioned earlier. An email including the information sheet (Appendix 10) was sent to the school of Engineering, and school of Business staff members, as well as to staff from the senior management team and student services. The email emphasised that staff will be recruited on the bases of ‘first come first served’. Interested staff members started to reply and simultaneously staff were selected. As soon as staff members sent their reply indicating their interest to participate in the interview, a proposed interview time and the venue were sent along with the consent sheet (Appendix 7) and the questions (Appendix 11) to prepare themselves for the interview.

3.6.3 Conducting the Interviews

To maintain performance consistency across all interviews and for guidance, prior to conducting the interviews script sheets (Appendix 12 and 13) were developed for each group. The script sheets contain all the essential steps that I had to follow during the interviews. This includes greeting the participant, introducing myself, providing a brief about the scope of the study, highlighting the definition of the self-efficacy concept, making sure that the participant had the chance to read and understand the information sheet, thanking the participant for agreeing to participate in the interview, obtaining the permission for signing the consent, informing the

participants regarding notes taking, and finally asking the relevant questions to each group. The question list facilitated the discussion in the interviews and was used as a repository to record significant issues raised, in note form, during the interviews. The participants were invited to the interviews based on their convenience. Consent was asked to be signed and submitted at the beginning of the interviews. During the interviews, the participants were given ample time to answer each of the questions and share their perceptions. Besides, the semi-structured format of the interview permitted me to provoke and explore areas related to the scope of the study when necessary. While conducting the interviews, I tried to maintain a neutral stance and at the same time creating an atmosphere that provides an empathetic understanding. The approach ensures attentiveness and the capture of thick data (Miles & Huberman, 1994, p. 6). I avoided asking many questions at the same time and tried to rephrase the questions that were not clear. I also used simple phrases while asking the questions to ensure the participant's comprehension whenever necessary. I tried not to lead the participant's answers and did not impose my views and interpretations. However, I echoed what the participants said on certain occasions and summarised their responses to check my understanding of the answers. At the end, the participants were given the chance to give their final comments that were relevant to the scope of the study.

3.6.4 Interviews Data Analysis

The qualitative data was analyzed through applying the Reflexive Thematic Analysis (TA) approach by Braun and Clarke (2021). This approach involves a reflective and iterative process that acknowledges the influence of the researcher's subjectivity and engages in a deep exploration of the data (Braun & Clarke, 2021). The questions asked in the interviews and the

generated themes would be explained by applying the (TA) analysis that involves several key steps:

1. Familiarization: As a researcher, I familiarized myself with the interview data, including the questions asked as well as the students' and the staff responses. This step involved reading and immersion in the data repeatedly to gain a comprehensive understanding of the participants' responses (Braun & Clarke, 2019).

2. Initial coding: at the beginning, I was engaged in initial coding, marking interesting responses and patterns that emerged from the data. The coding process was guided by the interview questions that were based on the pre-existing research questions and the theoretical frameworks which was applied in this study (Braun & Clarke, 2006). For example, the second research question addresses Bahrain Polytechnic students' and staff understanding regarding the institutional role in developing the students' employability skills 'How do final-year students and staff perceive the role of the institution in developing undergraduate students' employability skills?' to answer this question, it was essential to establish an understanding regarding the development of students' employability to further understand the contributing role of the institution in developing those skills. Therefore, there were questions asked during the interviews directed to explore students' perceptions regarding their employability skills including communication, analytical inquiry, collaboration, and professional development. The questions also examined the students' opinion regarding the institutional journey, and if it helped them to develop their skills. Their responses included their perception regarding

the employability skills therefore as initial codes communication skills, analytical skills, teamwork, and learning were identified (Figure 4).

3. Theme development: Themes were developed through an iterative process of moving back and forth between the coded data and the identified patterns and connections between the data. I went through examining the relationship between the questions asked, the responses obtained, and the emerging themes, refining and consolidating them gradually (Braun & Clarke, 2019). Referring to the previous example, the initial theme that was thought of 'Employability Skills' as the interview questions meant to explore participants' perceptions regarding employability skills.

4. Reflective analysis: during data analysis, continuous reflection of my interpretations and assumptions was carried out to examine my own influence on the data analysis, therefore I considered the opinion of 2 other experts regarding the interpretations to ensure the rigor and credibility of the analyzed data (Braun & Clarke, 2006).

5. Iterative process: (TA) approach is an iterative process that involves revisiting and refining the generated themes. I constantly compared the themes with the original interview questions to ensure the comprehensive coverage of the data and modified the themes as the analysis progresses (Braun & Clarke, 2019). Referring to the previous example the initial theme as stated in the third step is 'Employability Skills' however after revisiting the second research question and the interview questions it was apparent that this theme needs modification to provide a deeper insight regarding employability skills. Therefore,

the theme has changed to 'The development of students' employability skills' that addresses the research question by the interview questions.

6. Interpretation and reporting: The final stage is regarding the interpretation and reporting of the findings based on the generated themes. Rich description of the themes, supported by relevant excerpts from the interviews were provided. Where the relationship between the research questions, interview questions, and identified themes were discussed providing insights and interpretations to the data (Braun & Clarke, 2006).

3.7 Validity, Reliability, and Trustworthiness

For the survey, as stated in the methods section, the tool has been previously examined for reliability through three data collection cycles. Internal consistency of the tool was checked in three cycles, accordingly, items with depressed Cronbach's alpha were removed. While the third cycle also assessed the test-retest reliability (Ciarocco & Strohmetz, 2018). The tool has also been examined in this study for reliability. Overall, the 51 items of the ESSES survey showed excellent reliability with Cronbach's Alpha is 0.93 while the four domains of the tool (communication, analytic, collaboration, and professional skills) showed satisfactory to good reliability with Cronbach's Alpha ranging from 0.71 to 0.84 (Table 2).

Table (2) Reliability of the overall ESSES tool, the four domains, and sub-domains

Scale	Total items	Cronbach's Alpha
Employability Self-Efficacy Survey Total	51	**0.93**
Communication skills Total	16	**0.84**
Communication-Writing skills	*4*	*0.79*
Communication-Speaking skills	*4*	*0.76*
Communication-Reading skills	*4*	*0.66*
Communication-Listening skills	*4*	*0.66*
Analytical Inquiry skills Total	9	**0.79**
Analytical Inquiry-Research skills	*5*	*0.64*
Analytical Inquiry-Information Literacy Skills	*4*	*0.72*
Collaboration skills Total	10	**0.71**
Collaboration-Working in Groups Skills	*5*	*0.74*
Collaboration-Leading Skills	*5*	*0.69*
Professional Development skills Total	16	**0.75**
Professional Develop. -Self Manag. skills	*4*	*0.59*
Professional Develop. -Professional skills	*7*	*0.75*
Professional Develop. - Technology skills	*5*	*0.62*

The reliability of the four newly developed items related to students' perception of the extent of the impact of curricular measures on the students' employability skills was examined for the first time. This category of items showed satisfactory reliability with Cronbach's Alpha 0.65. The reliability test was conducted for the following curriculum measures items:

1. I believe the program I am enrolled in helped me to develop my employability skills.
2. I believe the Problem/Project Based Learning teaching approach which is applied in classrooms helped me to develop my employability skills.
3. I believe the final year industrial project helped me to develop my employability skills.
4. I believe that reflection helped me to witness my progress in developing my employability skills.

Table (3) Reliability of the overall items related to the perceived impact of the curriculum on students' employability skills

Scale	Total items	Cronbach's Alpha
Perceived extent of impact of the curricular measures on the students' employability skills	4	**0.65**

The reliability of the five newly developed items related to students' perception of the extent of the impact of students' services and activities on their employability skills was examined for the first time. This category of items showed high reliability with Cronbach's Alpha 0.89.

The reliability test was conducted for the following curriculum measures items:

1. I believe the Career and Employment Centre services helped me to develop my employability skills.
2. I believe the activities provided by Student Services helped me to develop my employability skills.
3. I believe competitions helped me to develop my employability skills.
4. I believe the Academic Advising service helped me to develop my employability skills
5. Being a member in those bodies helped me to develop my employability skills.

Table (4) Reliability of the overall items related to the perceived impact of services and participation in activities on students' employability skills

Scale	Total items	Cronbach's Alpha
Perceived extent of impact of the student's services and activities on the students' employability skills	5	**0.89**

The reliability of the reported extent of the utilised students' facilities for the items:

1. I utilise the Career and Employment Centre (CEC) services
2. I participate in activities provided by Student Services
3. I participate in competitions representing Bahrain Polytechnic
4. I regularly utilise the Academic Advising service.
5. I am a member of the Bahrain Polytechnic Student Council/ Volunteer Club.

The strategies to ensure trustworthiness in qualitative research are based on four criteria (Lincoln & Guba, 1985; Sim & Sharp, 1998). Those are credibility, transferability, confirmability, and reflexivity.

To maintain credibility, I ensured the application of a prolonged engagement plan which includes a long presence during the interviews. This approach helps in investing sufficient time to gain the participant's trust, and to get rich data through follow-up questions; it also helps in testing the misrepresentation of participants' perceptions and understanding the data thoroughly (Korstjens & Moser, 2018). Moreover, as mentioned earlier, I also applied the participant-check strategy

known as the dependability trustworthiness criterion (Korstjens & Moser, 2018). It is an approach where participants are involved in evaluating the transcription and the interpretation of their interviews therefore most of the participants were approached to check and verify their responses against the interpretations of their interviews. Accordingly, the responses were analysed in the most objective ways possible. Moreover, to maintain transferability (Korstjens & Moser, 2018), I tried to provide a thick description of the context through the details found in the introduction and setting sections. This helps outsiders to form meanings of students' and staff's perceptions. To maintain confirmability, all the steps taken from the beginning of the study to the reporting of the findings are logged. For example, a list was developed for students and staff to ensure that all interviews were transcribed and coded. Finally, to maintain reflexivity and minimise my bias, a diary was maintained to examine my assumptions, beliefs, preconceptions, and values, that would affect decisions related to this study in general and the thematic analysis of data in specific.

Chapter Four: Quantitative Findings

4.1. Overview

A contextualised approach for Bahrain Polytechnic to enhance its students' sense of self-efficacy to develop their employability skills would first require primary data regarding the students' perceptions of their self-efficacy towards their employability skills.

In this study, a mixed methods approach was applied to collect data that addresses the research questions as discussed in the previous chapter. The explanatory sequential design was found to be appropriate to provide initial data through the quantitative approach and then to follow with the qualitative approach to build on the data collected at the first stage and further explore the concepts from the perspective of the participants.

The first sub-question 'How do the final year undergraduate students perceive their sense of self-efficacy in their employability skills?' requires knowing if the students have a sense of self-efficacy towards their employability skills and it was explored since the institution had never collected data regarding students' perceptions of their self-efficacy towards their employability skills. The data was collected through a tool that includes:

1. newly developed questions to understand the impact of the institutional adopted curricular and co-curricular measures that aimed to enhance students' employability,
2. the Employable Skills Self-Efficacy Survey (ESSES) that consists of 51 items to explore students' self-efficacy perception towards four employability skills domains:

communication skills, analytical inquiry skills, collaboration skills, and professionalism skills was distributed among the final year students.

4.2 Data Analysis

In this chapter, the findings of the 103 final-year students who responded to the survey will be presented focusing on the students' self-efficacy perception of their employability skills in general and then in each employability skill domain. It will also address the students' perceptions regarding the measures that were implemented to enhance their employability skills.

4.2.1. Overall perceived Self-efficacy of Employability Skills

The 103 students who responded to the survey reported perceived self-efficacy with an overall mean of M= 4.6 out of 6 points towards the four employability skills domains (table 5). It is also found that there is a noticeable homogeneity among the four employability skills domains in terms of their total scores as it is shown in the table below with a very small standard deviation (0.6). With a mild difference in students' sense of self-efficacy towards the four employability skills domains, students' self-efficacy towards professionalism skills recorded the highest mean M=4.7 out of 6 points while their sense of self-efficacy towards communication skills recorded the lowest mean of M=4.4 out of 6 points.

Table (5) Students perceived self-efficacy of the four employability skills' domains

Domains	Mean	Median	St. Dev
Communication skills	4.4	4.4	0.7
Analytic inquiry skills	4.5	4.4	0.7
Collaboration skills	4.6	4.7	0.7
Professionalism skills	4.7	4.7	0.6
Total ESSES	**4.6**	**4.5**	**0.6**

The table above indicates that the final year students perceive self-efficacy towards their employability skills which is a data was never explored before. The establishment of this knowledge will direct the data collection of the second stage of the study to explore the institutional measures that helped in developing students' sense of self-efficacy toward their employability skills.

4.2.2 Perceived Self-efficacy of Each Employability skills

Understanding students' perception of self-efficacy regarding each employability skills domain is important since the study is also exploring students' perceptions towards the embedded institutional employability-driven measures and those measures often focus on particular skills at a time. For example, presenting a topic is a practice that students have to perform in most of the courses and it is one of the communication skills. Understanding the influence of those measures in detail can help in improving institutional policy and practice. Accordingly, the 51 items of the 'Employable Skills Self-Efficacy Survey' were clustered and analysed as per their domain and subdomains that they belong to using the key scoring tool as provided by the developers of the tool (Appendix 14). The clustering of the items that belong to each employability skills domain is as follows:

1. Communication skills represented by 16 items from the survey that includes (writing skills 4 items, speaking skills 4 items, and reading skills 4 items)
2. Analytical inquiry skills are represented by 9 items from the survey that includes (research skills 5 items and information literacy skills 4 items)

3. Collaboration skills are represented by 10 items from the survey that includes (Working in groups skills 5 items and leadership skills 5 items)
4. Professional development skills are represented by 16 items from the survey that includes (Self-management skills 4 items, self-management skills 7 items, and technology skills 5 items)

a. Perceived Self-efficacy of Communication Skills

Students have shown an average level of self-efficacy towards communication skills with an overall mean of M=4.4 out of 6 points. The highest sense of self-efficacy was recorded for writing skills M=4.6 out of 6 points and the lowest sense of self-efficacy for listening skills M=4.2 out of 6 points (table 7). Despite the minor differences across the four communication skills, the students perceived an average level of self-efficacy in all these skills.

Table (6) Perceived self-efficacy in the communication overall skills and subdomains

Subdomains	Mean	Median	St. Dev
Writing skills	4.6	4.7	1
Speaking skills	4.4	4.5	1
Reading skills	4.5	4.5	0.8
Listening skills	4.2	4.2	0.9
Total Communication	**4.4**	**4.4**	**0.7**

b. Perceived Self-efficacy of Analytic Inquiry Skills

Students showed an average level of perceived self-efficacy towards analytic skills with an overall mean of M=4.5 out of 6 points (Table 8). Though students' sense of self-efficacy towards information literacy skills scored a higher mean than students' sense of self-efficacy towards

research skills M=4.7 out of 6 points, yet the students' sense of self-efficacy towards both analytic inquiry skills was average.

Table (7) Perceived self-efficacy in the analytical overall skills and subdomains

Subdomains	Mean	Median	St. Dev
Research skills	4.3	4.2	0.7
Information literacy skills	4.7	4.8	0.9
Total Analytic skills	**4.5**	**4.4**	**0.7**

c. Perceived Self-efficacy of Collaboration Skills

Students have shown an average level of perceived self-efficacy toward collaboration skills with an overall mean of M=4.6 out of 6 points (table 9). Though the students' sense of self-efficacy towards leadership skills reported a higher mean than their sense of self-efficacy toward working in groups, skill score M=4.9 out of 6 points, yet the students' sense of self-efficacy towards both collaboration skills was average.

Table (8) Perceived self-efficacy in the collaboration overall skills and subdomains

Subdomains	Mean	Median	St. Dev
Working in groups skills	4.2	4.4	0.9
Leadership skills	4.9	5	0.8
Total Collaboration	**4.6**	**4.7**	**0.7**

d. Perceived Self-efficacy of Professionalism Skills

An average level of perceived self-efficacy towards professionalism skills with an overall mean score of 4.7out of 6 points was reported. Technical skills scored the highest mean of 4.9 out of 6.

However, despite these differences across the three skills, the students recorded an average level of self-efficacy in all of them.

Table (9) Perceived self-efficacy in the professionalism overall skills and subdomains

Subdomains	Mean	Median	St. Dev
Self-management skills	4.4	4.5	0.9
Professional skills	4.7	4.8	0.9
Technical skills	4.9	4.7	0.7
Total Professionalism	**4.7**	**4.7**	**0.6**

The general impression of the students' sense of self-efficacy towards the skills within each employability skill domain is found to be average. The findings indicate that the implemented employability institutional measures had influenced students' sense of self-efficacy as the research methods used in this study are contextualised to explore the students' sense of self-efficacy towards their employability skills based on the implemented measures by Bahrain Polytechnic.

4.2.3 The Impact of the Institutional Measures

One of the main aims of the study is to understand the impact of the measures implemented by the Polytechnic to improve undergraduate students' employability skills. In this section, the findings of the impact of Bahrain Polytechnic curricular measures and co-curricular measures on the development of the students' employability skills will be presented.

4.2.3.1 Impact of Curricular Measures on Employability Skills

Before exploring the influence of the curricular measures on students' sense of self-efficacy during the interviews, it is important to know if those measures had an impact on the development of students' employability skills as intended. The descriptive analysis of the 103 students' responses to the 4 newly developed questions regarding the implemented employability curricular measures showed agreement (87.4%) to the scale's statements that vary from somewhat agree to strongly agree (table 11). The highest agreement was recorded for *"I believe the program I am enrolled in helped me to develop my employability skills"* with a total of (94.1%).

Table (10) Perceived impact of curricular measures on students' employability skills

Statement	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
I believe the program I am enrolled in helped me to develop my employability skills.	0	1(1%)	5(4.9%)	13(12.6%)	33(32%)	51(49.5%)
I believe Problem/Project Based Learning teaching approach which is applied in class rooms helped me to develop my employability skills.	1(1%)	2(1.9%)	5(4.9%)	18(17.5%)	36(35%)	41(39.8%)
I believe the final year industrial project helped me to develop my employability skills.	3(2.9%)	3(2.9%)	8(7.8%)	16(15.5%)	25(24.3%)	48(46.6%)
I believe that reflection helped me to witness my progress in developing my employability skills.	4(3.9%)	7(6.8%)	12(11.7%)	18(17.5%)	29(28.2%)	32(31.1%)
Pooled freq.(%)	**8(1.9%)**	**13(3.2%)**	**30(7.3%)**	**65(15.8%)**	**123(29.9%)**	**172(41.7%)**

The mean of the surveyed students showed that they had a high perception regarding the impact of the curricular measures on the development of their employability skills M= 4.9 out of 6.

Table (11) Mean of curricular measures' impact on the students' employability skills

Mean	Median	St. Dev.
4.9	5	0.82

This indicates that the curricular measures that include the programme design, the applied teaching and learning methodologies, the final year industrial project, and the applied reflection practice had an appreciable influence on the development of the students' employability skills.

4.2.3.2 Impact of Co-curricular Measures

a. Utilisation and Participation in Co-curricular Opportunities

As the co-curricular opportunities and services are optional to the students it is important to present the students' utilization and participation in co-curricular opportunities first before reporting the findings regarding the impact of those on the development of students' employability. As per (table 15) below, the findings showed low positive responses to the utilisation and participation in co-curricular opportunities of 31.3%, while most of the students' responses were 'No' 68.7%

Table (12) Utilisation and participation in co-curricular opportunities

Statement	No	Yes
I utilize the Career and Employment Centre (CEC) services	60(58.3%)	43(41.7%)
I participate in activities provided by Student Services	79(76.7%)	24(23.3%)
I participate in competitions representing Bahrain Polytechnic	73(70.9%)	30(29.1%)
I regularly utilize the Academic Advising service.	54(52.4%)	49(47.6%)
I am a member in Bahrain Polytechnic Student Council/ Volunteer Club.	88(85.4%)	15(14.6%)
Pooled freq.(%)	**354(68.7%)**	**161(31.3%)**

Since the services and activities are not mandatory as the curricular opportunities, the finding does not reflect the actual data as it does not reflect on the information regarding the frequency of utilisation of services and participation in the co-curricular activities and it also does not provide any indication regarding the students' utilisation and participation in all provided opportunities. It just shows that the number of students who utilise the services and participate in the co-curricular opportunities was low in general.

b. Co-curricular Impact on Employability Skills

The students who had a positive response to the questions exploring their utilisation of services and participation in co-curricular activities were asked to rank the impact of those services and activities as per the below questions in (Table 16) The findings showed that the students who utilised the services and participated in the activities perceive the impact of those services and activities on the development of their employability skills, 78.3% of the students' responses were either agreeing or strongly agreeing with the statements of the table below.

Table (13) Perceived impact of the co-curricular measures on students' employability skills

Statement	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
I believe the Career and Employment Centre services helped me to develop my employability skills.	1(2.3%)	0	4(9.3%)	22(51.2%)	9(20.9%)	7(16.3%)
I believe the activities provided by Student Services helped me to develop my employability skills.	2(8.3%)	1(4.2%)	3(12.52%)	7(29.2%)	3(12.5%)	8(33.3%)
I believe competitions helped me to develop my employability skills.	1(3.3%)	2(6.7%)	3(10%)	9(30%)	6(20%)	9(30%)
I believe the Academic Advising service helped me to develop my employability skills	4(8.2%)	2(4.1%)	9(18.4%)	12(24.5%)	10(20.4%)	12(24.5%)
Being a member in those bodies helped me to develop my employability skills.	2(13.3%)	1(6.7%)	0	2(13.3%)	3(20%)	7(46.7%)
Pooled freq.(%)	**10(6.2%)**	**6(3.7%)**	**19(11.8%)**	**52(32.3%)**	**31(19.3%)**	**43(26.7%)**

The mean of the surveyed students showed that they had a moderate level of perceived impact of co-curricular activities and services on their employability skills as their mean was M=4.2 out of 6 points. A moderate variation exists among the subjects' perceived impact as reflected by a very small standard deviation of 1.3.

Table (14) Overall impact of co-curricular measures on students' employability skills

Mean	Median	St. Dev.
4.2	4.5	1.3

4.2.4 Summary

To understand the context better, initial data regarding the final year students' perceptions of their self-efficacy towards employability skills needed to be obtained first. Also, data regarding their perceptions of the impact of the curricular measures, co-curricular activities, and services towards the development of their employability skill was required. These findings regarding the final year Bahrain Polytechnic students were explored and presented for the first time. The survey findings showed that the students had perceived self-efficacy with an overall mean of M= 4.6 out of 6 points towards the four employability skills domains.

The students' sense of self-efficacy towards the skills within each employability skill domain was also found to be average. The impact of the curricular measures on the development of students' employability skills was also explored. The findings showed that the curricular measures that include the programme design, the applied teaching, and learning methodologies, the final year industrial project, and the applied reflection practice had a high impact on the development of the students' employability skills.

Regarding the co-curricular activities and services, the findings showed that 68.7% of the students who responded to the survey did not utilise the services nor participated in the activities. While those who did, perceived a moderate level impact of the co-curricular measures on their employability skills as their mean was M=4.2 out of 6 points.

The next chapter is illustrating the qualitative data and the results will reflect the students' and staff perceptions regarding the students' employability skills, their sense of self-efficacy towards

their skills, the employability curricular and co-curricular measures, and the views regarding the preparedness of the students in depth.

Chapter Five: Qualitative Findings

As presented earlier, semi-structured interviews were implemented in this study as a second stage to collect qualitative data from students and staff members. After establishing the knowledge that Bahrain Polytechnic final year students have a sense of self-efficacy towards their employability skills and the measures implemented institutionally had an impact on the development of their employability skills by the data collected from the survey, 18 semi-structured interviews were conducted to further explore and understand the participants' perceptions regarding students' employability and self-efficacy. The questions of the interviews were tailored to facilitate the collection of qualitative data and triangulate it with the quantitative findings. Furthermore, the questions were developed to explore how the employability-related measures and practices influenced the development of Bahrain Polytechnic students' employability skills; they were also structured in a way to find out whether the employability-related measures assisted in developing students' sense of self-efficacy toward their employability skills. The findings are presented as quoted to display the significant points from student and staff members' perspectives. The first section of this part addresses participant demographic data of both students and staff members who participated in the interviews. Then the process of student and staff members' coding follows separately, as well as the presentation of the findings according to the thematic analysis.

5.1 Participants Data

Participant information regarding gender, programme, and reference is addressed in table (19).

Table (15) Participants' demographic data

Participants (Students)	Reference	Gender	Programme
Interviewee 1	I 1	M	Bachelor of Engineering
Interviewee 2	I 2	M	Bachelor of Engineering
Interviewee 3	I 3	M	Bachelor of Engineering
Interviewee 4	I 4	M	Bachelor of Engineering
Interviewee 5	I 5	F	Bachelor of Business
Interviewee 6	I 6	F	Bachelor of Business
Interviewee 7	I 7	F	Bachelor of Business
Interviewee 8	I 8	F	Bachelor of Engineering
Participants (Staff members)	Reference	Gender	Position
Interviewee 9	I 9	M	Senior curriculum advisor
Interviewee 10	I 10	M	CEO
Interviewee 11	I 11	F	Programme manager year 1 and 2 (Business)
Interviewee 12	I 12	M	Senior academic staff member (Business)
Interviewee 13	I 13	F	Director of student services
Interviewee 14	I 14	M	Manager student affairs
Interviewee 15	I 15	F	Academic staff member (Business)
Interviewee 16	I 16	F	Academic staff member teaching English (Engineering)
Interviewee 17	I 17	F	Head of School (Engineering)
Interviewee 18	I 18	M	Programme manager year 1 and 2 (Engineering)

Final-year undergraduate students from Business and Engineering schools participated in the interviews, four students from the School of Engineering and four from the School of Business. It is noticeable that all engineering students were male while business students were female. This could be due to many factors including that some disciplines like Engineering are most likely male-gender-specific in Bahrain, however, the interest of students to participate in the interviews was another factor that led to disproportional gender distribution among the interviewed

students from the same programme. Moreover, the students' gender was hard to control since the rule was set from the beginning for the interviews to be conducted based on a first-come-first-served basis.

The interviewed staff members were from the School of Business, School of Engineering, and senior management team as described in the previous chapter. The table shows the different positions of the interviewed staff. Regarding their educational level, they were either Master's or Ph.D. holders. Half of the staff had degrees in education while the rest were in their discipline (Engineering / Business). Most of them except the CEO completed a certificate in tertiary teaching and learning that was provided by the Polytechnic. This certificate prepares all newly joined academic staff members for the teaching and learning methodologies, practices, frameworks, policies, and environment at the institution. It is worth mentioning that all the interviewed staff members have academic advising and mentoring roles except the CEO, yet the students are allowed to approach the CEO for any issue related to their studies.

5.2 Thematic Analysis Process

In this study, the Reflexive Thematic Analysis (TA) approach by Braun and Clarke (2021) was applied to extract meanings from data patterns and to inform the interpretation of data theoretically as mentioned in the third chapter. Reflexive TA is found to be the most applicable approach as it acknowledges the inductive process of data to coding and captures the semantic meanings of data that helps in the theme development processes; it may also provide some flexibility around the theory that the research is based on (Braun & Clarke, 2021).

The Reflexive TA consists of six phases (Braun & Clarke, 2021) as stated in section 3.6.7, those are:

1. Familiarisation stage, which is about data familiarisation and writing familiarisation notes,
2. Coding stage, which is about systematic data coding,
3. Generating initial themes for coded and collected data,
4. Developing and reviewing themes,
5. Refining, defining, and naming themes,
6. Writing up the report.

The process was followed accordingly, where the interviews were transcribed first. This stage provided the chance to fully immerse in data and to become more familiar with the meaning of the data after the first exposure during the interviews. The codes started to appear during the ongoing transcription process. Initial data is believed to form the base for the following data obtained from the rest of the interviews (Corbin & Strauss, 2008). In this stage, Microsoft Word was used for the familiarisation notes Then the data was systematically organised in a meaningful manner by using a Microsoft Excel sheet (Appendix 15) for finalising the codes and creating categories and subcategories for the initial themes that were created. Then the themes underwent a continuous process of refining until they were finalised as presented in the themes section.

5.3 Students Codes

The very initial codes of the students' transcribed interviews were primarily related to students' positive and negative perceptions and affirmations towards the institutional measures and

practices that are meant to enhance their employability and sense of self-efficacy. The coding process, however, was repeated 3 times. The first 'initial coding' stage is as described above. In this stage, I referred to 2 experts to validate the initial codes (Appendix 16) and their feedback was taken into consideration. For example, one of the experts asked to refer to the interviewees to match their answers in the interviews with the transcription and check if the codes are representing the points that they were trying to emphasise. According to the dependability trustworthiness criterion (Korstjens & Moser, 2018), I managed to meet most of the participants to check and verify their responses against the interpretations of their interviews. Cross-checking was conducted at the beginning of the second stage of coding. Along with the day-to-day reading. Through the related literature and the thorough reading 'word by word of the transcribed interviews, it was obvious that many of the codes required to be refined to be able to make inferences about the meaning of the codes. Data were compared for similarity and differences, some were recorded, while labels and memos were attached to emphasise certain factors related to some of the data. The codes of the second stage include the preparedness of students for the world of work, 'positive and negative affirmation, communication skill, analytical skill, teamwork skill, learning skill, reflective practice, feedback, academic advising, tutor support, variation, Problem-based learning, and teaching methods, career advising, self-awareness, self-confidence, self-discipline, and self-efficacy, etc. In the third stage, the codes were categorised and sub categorised using the Excel working sheet. For example, communication skills, analytical skills, teamwork skills, and learning skills were categorised as employability skills. The curricular measures category included problem-based learning and teaching methods, final year project, tutor support, foundation skills, showcasing, and subcategories of assessment, project, work-

integrated learning, field trip, authentic, general support, etc. It is worth mentioning that codes addressing 3 concepts related to 'self' have begun to emerge including self-awareness, self-confidence, and self-efficacy. While there were elements identified to be influencing self-efficacy and the development of employability skills which were pre-tertiary education exposure, variation, past experiences, and reinforcement. The categories, subcategories, and codes were identified as follows.

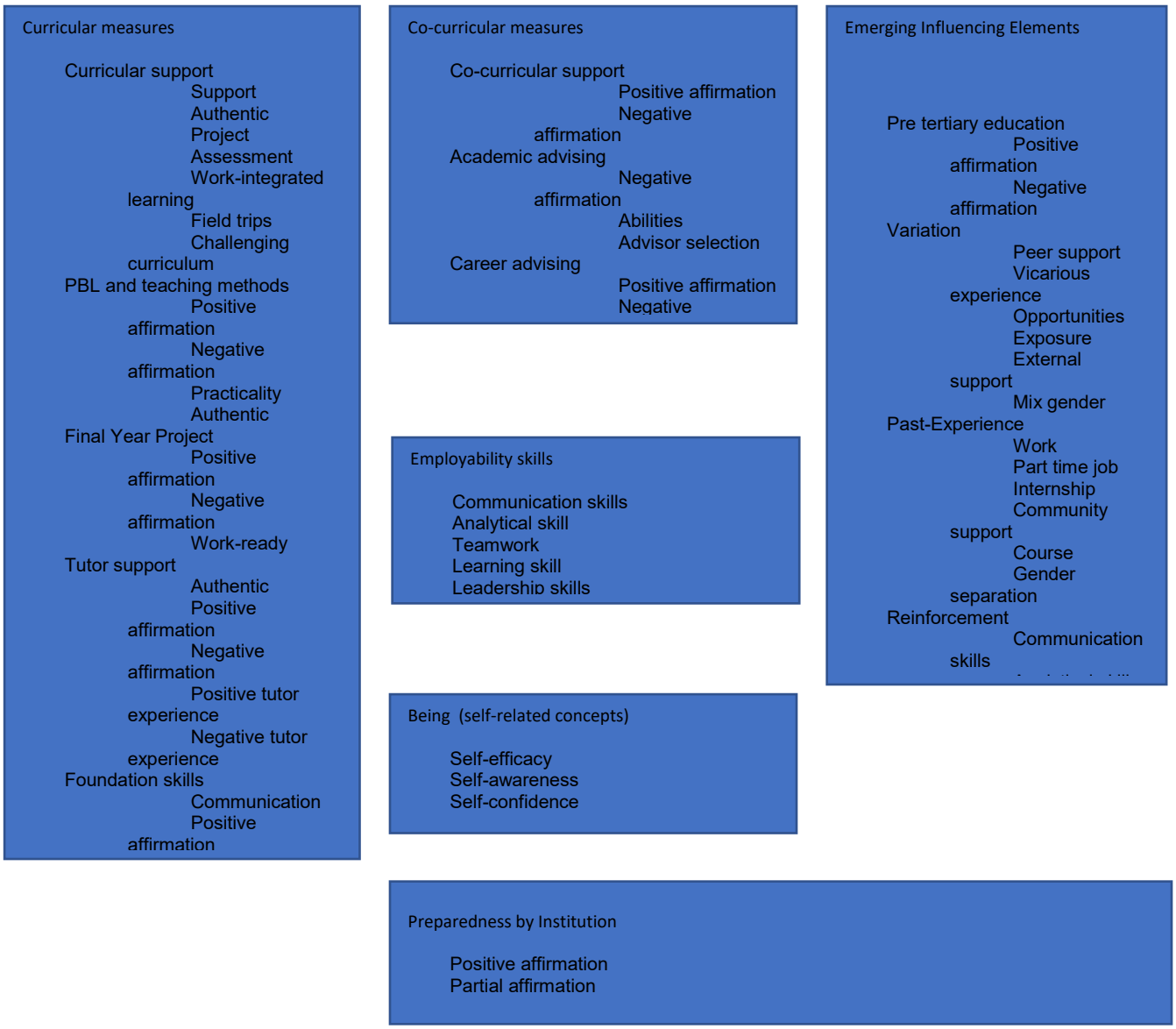


Figure (3) Students' codes from the interviews

5.4 Students' Themes

While writing up and reviewing the findings and the discussion chapters some of the codes were rephrased for the final time. During the process, the themes were also developed, refined, and finalised. After finalising the codes and the categories. There were six themes extracted from the students' data analysis process those are:

1. The institution's developmental role in preparing the graduates for the market.
2. The development of students' employability skills.
3. The implementation of measures that enhances students' employability and influences their sense of self-efficacy.
4. The elements influencing the development of students' sense of self-efficacy toward their employability skills.
5. The perceived self-related concepts beyond self-efficacy.
6. The absence of a comprehensive mechanism to develop students' sense of self-efficacy.

5.5. Students' Findings

The students' findings provided an understanding of their perceptions regarding the institutional measures and practices meant to develop their employability skills. Moreover, it explored the students' thoughts regarding the role of the institution in enhancing their sense of self-efficacy specifically and their preparedness for the market in general. In the following sections, the findings will be presented as per the emerging themes.

5.5.1 The Developmental Role of the Institution in Preparing the Graduates for the Market

The first interview question explored students' perceptions about their preparedness by the institution for the world of work. The answers showed an overall positive perception regarding students' preparedness by the institution. Most of the students believed that the institution has prepared them to meet the requirements of their future jobs and only one (I6) stated that the institution had a partial contribution in her preparedness as she referred to the impact of her part-time job. Accordingly, the first theme has emerged in support of the institutional developmental role in preparing graduates for the market.

> *I think yes the institution prepared me for the world of work due to several reasons actually to be specific in the engineering program we have graduation requirements that we have to complete 80 days of training like internship programs so these programs help us to go to […] big companies and leading companies in Bahrain such as Alba, GPIC, Bapco in these companies we had learned about work ethics and how the routine work look like there (I3).*

Some of the students took the liberty to provide elaborative answers by specifying some of the factors they thought aided them in their preparedness including the setup, the environment, the practices, and the systems. They also mentioned that Bahrain Polytechnic differs from other higher education institutions mainly by focusing on the development of students' employability skills while few compared themselves to graduates from other higher education institutions.

> *Well at this point, reflecting on the four years that I have been here and the one-year foundation I did, I believe that from the start of the journey, the Polytechnic focused a lot on those skills maybe back then we thought having a one-year foundation was a bit silly as we*

did not need it, but it did prepare us from day one, and by now I think I can proudly say I can practise all to employability skills wherever I am (I7).

And I think this is how polytechnic is different in Bahrain when you look at different universities in Bahrain they focus on just theory-based learning we can say it is quite different even the outcome quality of graduates we have here, and I am not saying this based on my personal experience, I have been talking to people, but people from different industries do say that. Their feedback is that the quality of the students who graduate from the Polytechnic are different (I7).

5.5.2 The Development of Students' Employability skills

The following interview questions were in line with the survey employability domains. They were specifically addressing students' employability skills. The questions were designed to explore in depth the students' perspectives regarding the institutional impact in developing their skills and their sense of self-efficacy towards those skills. During the interviews, the students affirmed that the institution had provided opportunities through many measures to develop their skills, and some elements enhanced the development of those skills. Consequently, the second theme emerged which addresses the development of students' employability skills.

a. Communication Skills

Regarding their employability skills, most of the students stated that the institution helped them in improving their communication skills.

I think the way Polytechnic focused on communication did not only prepared us for the work-life, but it also prepared us for our own personal life (I7).

The students also expressed their ability to communicate with other students, students from other disciplines, their tutors, employers, judges, audience, and different types of people. They also specified some of the communication skills that they have gained, such as presentation skills, command of verbal communication, use of professional language, developing reports, setting and managing the expectations of interviews, and writing project proposals.

When I did the internship in Alba where they do the usual weekly safety talks. The talks address certain topics and present them in front of the whole department or sometimes more than one department we have to talk in front of. So, one of the tasks that were assigned to me was to handle the whole safety talk in front of the finance department, which was at that time nothing for me, so easy because I got used to presenting in front of people (I5).

The students stated some important elements that contributed to the development of their communication skills, such as:

1. working in groups; it has been mentioned by many of the students that working in groups helped them to learn how to freely share their thoughts and opinions in front of other people while the feedback that they receive from their peers also seemed to be beneficial.

[...] working in groups, I am finding it easier and being able to

communicate my information to others (I4).

2. Working in collaborative projects, where a group of students is expected to work within a scope of objectives to meet a measurable deliverable through curricular and co-curricular opportunities.

Yes, I feel that I have gained that after working on several projects it is not only necessary to be restricted to education as I was, I participated in many events that happened in the university itself so that also helps (I8).

b. Teamwork Skills

The majority of the participants stated that the institution helped them in improving their collaborative skills and they also mentioned that they were aware of the expectations of how to act as a team member in assigned groups. Yet, the students expressed that in some of the groups, some of their team members lacked the skills that would require them to fulfil the tasks.

Moreover, some of the students highlighted aspects that influenced the development of their collaborative skills including the provision of opportunities to understand and capitalise on each other's strengths and weaknesses.

Teamwork, I am a person who likes to work independently, but when I first entered Bahrain Polytechnic, I found that one of the major skills that they focus on is teamwork. I am good at individual work however I had to adopt the teamwork thing. The good thing I have is adaptability. Now I am fine with working with myself or working within a group. However now I prefer working with a group more even though I face some of the group members who do not work or sometimes they have different levels of skills (I5).

Right now, I am working with a team of one Ph.D. holder, old engineers, young engineers, and experienced people. I am working with so many types of people that I know how to communicate with, I know how to work with them in a team properly, how to actively listen to them, because after all, they are the ones with experience and they are the clients so I have learned many things from the co-staff how can I say this 'I know that I had the skill but now I know how good I am at it' (I2).

There was an emphasis by one of the students (I7) that working in a team improves the team members' communication skills. While another student (I6) stated that a high percentage of their assessments were conducted in groups, and this was a factor to improve their collaborative skills.

c. Analytical Skills

All the students agreed that the institution provided learning opportunities for the students to develop their analytical skills. However, they also highlighted that this particular skill requires time to be developed.

In the Polytechnic starting from the first year, foundation year as well, but mostly the first year, we started doing the interviews, we started surveying people passing out questionnaires, so when you get the data you have to interpret them some way or another, you can't give your tutor back some numbers only. So you have to interpret and analyse the data. In the beginning, it was very difficult for me. I did not know how to do it. Not only analysing data but also thinking and analysing data critically. So, in the beginning, it was hard. let us be honest, I am confident in saying I gained the skill at the beginning of my third

year so it took time because it is something you can't learn by paper and pen it is just you have to practise and get back feedback (I7).

I was still able to move forward with my project despite those problems, I believe this is because of the education I had at Bahrain polytechnic. Dealing with problems has become routine for me. So, solving them has been something that I do every day (I4).

Analysing 'real' problems and working in 'groups' to perform the tasks, were also emphasised by the students. Most of the examples that were mentioned by the students regarding the learning opportunities that enhance their analytical skills had those two factors. The students even stated that they would feel comfortable working in unfamiliar situations to perform the analytical skills.

I had to analysis a real estate 'an apartment' and do the financial analysis and then give my opinion if this apartment is a profitable investment or not based on my financial analysis and based on the survey that we have done (I5).

d. Learning Skills

The students spoke about learning skills on many occasions during the interviews. Their views were clearly showing growth related to metacognition strategies. The answers provided, even to questions not related to learning skills, reflect their understanding regarding the approaches that they have to undertake to learn new things.

What I think I could do to develop myself professionally is first of all by reading, continuing to study and by actively listening to others and gaining from their experience and helping them because in my opinion when you help someone, he would always help you back (I2).

The students explained some elements that helped in enhancing their learning skills. As with the (I2) quote above, engaging with people who are experienced in their field and helping others could nurture learning. Other students stated other factors that enhanced their learning skills such as working in groups, working on projects, gaining certain techniques from courses like 'Gant chart in Project Management Course', learning research methods, having opportunities for exploration, and implementing reflective practice.

> *I am a bit of a harsh critique when it comes to myself. So, if I know I did something wrong and I realise it either earlier or later I think about it, I am like, "What would I have done better". So that in case of that situation was to come again I would know how to overcome it at least (I7).*

In summary, the students' responses show that the curricular opportunities provided by the institution helped them in developing their employability skills. They also provided a deep understanding of how those skills developed and what were the influencing factors that helped them in nurturing those skills. Some of those factors were found to be common across the skills such as working in groups and project-based learning. Other factors that are found to be important are working with experienced individuals, solving authentic problems, and reflective practice.

5.5.3 The implementation of Measures that Enhances Students' Employability and Influences their Sense of Self-efficacy

In this section, the findings to the questions regarding the curricular and co-curricular measures implemented by the institution show that many of the curricular measures helped in enhancing

students' employability skills as well as their sense of self-efficacy. However, the co-curricular measures were not perceived as beneficial by almost half of the students who were interviewed while the other half who were engaged with the measures had positive perceptions regarding its impact on their employability and sense of self-efficacy.

a. Curricular Measures

One of the leading measures that helped in enhancing students' employability skills as well as their sense of self-efficacy was applying the project-based teaching and learning methodology in the classrooms by the tutors. The students' responses showed the value of the curricular experience which provides them the opportunities to learn through working on projects.

> *I believe what differentiates Bahrain Polytechnic amongst different universities in Bahrain is that they tap on or focus on the employability skills that are based on projects (I8).*

(I8) also reflected on her self-confidence that was gained from working in multiple projects.

The students also valued the authenticity of those projects. All their responses were about their involvement in solving real-life problems. They expressed the value of taking part in solving problems that will have a tangible impact in the future. They also expressed their understanding of how their involvement in those 'real' projects improved their skills over time. The students showed understanding of their role in assessments based on projects and they also voiced their satisfaction and sense of self-efficacy to take part in solving problems through the project-based approach.

[...] and we also did it in a subject called Strategic Human Resources Management. It was based on polytechnic too, so we were asked to analyse the strategy that the polytechnic uses now, and we did an interview with Ms. D., she is an advisor (I7).

Authentic real-life problems were not just represented through projects. Students expressed that the design of the entire programmes was greatly mirroring the actual local market that they will be joining soon. As expressed by (I3), this will aid in managing their expectations later as they embark on their career journey. Another student (I4) stated that it was easy for him to manage the expectations as many of the topics that he studied at Bahrain Polytechnic applied to a company that he used to work for while studying.

Work-based learning is another student-centered teaching and learning approach that is believed to enhance students' employability skills as per the students' perspectives. Students who were enrolled in Engineering programmes highly praised the impact of the compulsory 80 days of work placement required by the programme while Business students commended the work-based projects.

I think yes the institution prepared me […] due to several reasons actually to be specific in the engineering program we have graduation requirements to complete, 80 training days internship program, so these programs help us to go to organisations like big, leading companies in Bahrain such as Alba, GPIC, Bapco where we learned about work ethics, how the work was like and the routine work there (I3).

Well, the way it works is that we get sent after a company, and then we have to identify a project there or they can give us a project, and then we have to start working on it. It is a bit

different, you don't sit at home to do your project, you have to go and work there and sometimes the place you are working for, gives you their work, they want you to learn. So, I think you know the four years are different from this semester (I7).

Curricular opportunities were emphasised as a first response when students were asked about their preparedness by the institution. Students mentioned many courses which, as per their statements, helped in developing their skills and sense of self-efficacy. Examples of those courses are Thinking Outside the Box (I2, I3, I6), Project Management (I3), Introduction to Marketing (I6), Financial Accounting (I5), Manufacturing Processes (I4), Applied Communication (I5), Market Yourself (I6), Reading the World (I6), Preparation for Academic Learning (I7) and all the English courses (I2, I7).

Beyond the 8 employability skills, I5 stated that the courses offered opportunities to develop other skills such as how to deal with the opposite gender which was an issue for her since her former education up to K12 was in all-female schools.

I used to be in an environment where it is all females and I had to move to a university where it is a mixed environment of males and females. In my first course, I was so shy but after that, within that course, I was approached and persuaded for the course in which I had to present in front of tutors … but I had to engage with males, so I think that barrier was crashed and I got over it and overcame that issue. So, after my first course, I had the confidence to interact with males and to present in front of the class in front of tutors (I5).

Negative perceptions were also expressed by the students regarding some of the curricular practices that required to be improved. Some related to curricular opportunities as addressed by

a few students with a significant impact on the development of their employability skills. English courses were mentioned earlier to help in developing students' employability skills yet (I3) stated that the rapid changes to the English degree courses are causing some instability. Another negative perception was highlighted by (I7) stating that some courses, for example, those in Human Resources Programme are not up to date nor provide the current knowledge and skills required by the labour market. Regarding teamwork or working in groups, (I5) expressed the challenge of group members' commitment to their responsibilities as some members end up doing most of the work. Another challenge voiced by (I6) is that working in a group could be challenging for introverts which eventually impacts their performance.

The following section will focus on some specific curricular measures including Problem-Based Learning (PBL) teaching and learning method, final-year project, reflective practice, and showcasing. Those curricular aspects were addressed by dedicated questions during the interviews. However, other curricular measures emerged from the students' interviews including feedback, foundation skills, and tutor support.

The interviewed students agreed that the PBL approach, in general, had a positive impact on employability skills. Yet among the two different programmes, students' perceptions were distinctively different.

All Engineering students agreed that PBL had its benefits and challenges. (I1) stated that they had to go through struggles to learn by implementing the PBL approach where they had to, as he stated to "pull your own weight, nobody is going to feed you anything, you have to struggle" while (I4) stated that PBL consumes time "sometimes you just need help, you don't want to do

three hours of research for a five-minute answer". Another negative perception expressed by (I3) is that PBL cannot be applied to all Engineering courses as some courses would require prerequisite knowledge while PBL approach would require them to go through websites, resources of which might not be credible. On the other hand, they stated that PBL advantages were evidenced in advanced and practical courses.

> *To be frank with you, during my first 2 years, I did not think it was a good thing, but during my third year, we had this course where we had to design a car from A-Z so it was completely PBL, in this year I have learned how to research and I have learned how to look for reliable and credible information (I2).*

While business students stated that project and problem-based learning approaches helped in developing their employability skills and sense of self-efficacy, as evident in the previous section emphasising that those approaches are authentic and address real-life problems.

> *I think if we did not have PBL in Polytechnic I do not think we could have gained those skills easily because as I said those skills are not skills that can be gained by taking an exam or by teaching or by learning theories. If you learn those theories and you don't apply them then what is the use? I think the PBL has an important role (I7).*

The final year project was also found to be extremely valued by all students. As described by (I1), it was "the crown jewel on the top of the courses". Characterised by "lots of exposure" (I6) and requires students to work outside their comfort zone (I8) "working in a company outside, off-campus develops the students and make them ready for the workforce". (I3) mentioned, the final year project was perceived as an actual accomplishment solely by the student him/herself

"because the final year project is my work, it depends all on me, it is my work in actual work". However, there were issues raised that might cause stress to some of the students who need to be attended such as poor management and coordination of the final year projects with industry partners.

Regarding tutor support, there were mixed responses among Engineering and Business students. Most of the students expressed their satisfaction with the support that they receive from their tutors in helping them to develop their employability skills, sense of self-confidence, and self-efficacy. Engineering students highlighted an important issue addressing the lack of industrial experience of some of those tutors which affects the credibility of their support.

> *The quality of the tutors we get here is not always correct, some of them just have teaching background and no practical experience, so that kind of tutors does not feel that Polytechnic is right for hiring someone with just theoretical background (I1).*

While Business students were commending their tutor support and acknowledged their experience and background which are fit for their role. For example (I6) stated "I appreciate our tutors' efforts. The marketing tutors they comfortably push us".

For those who took the Foundation programme, the skills gained through the programme were perceived as a value in preparing them as early as possible for the world of work as stated by (I7) "it did prepare us from day one". The perceived benefits of the foundation programme were not limited to the students who completed the programme. Some of those who managed to gain direct entry into their degree of discipline also perceived the benefit of the programme as for

developing students' skills as stated by (I5) "For me as a student who did not take foundation, I think Foundation here in the Polytechnic enables and teaches the students lots of skills".

Another explored curricular opportunity is 'Showcasing'. All the interviewed students agreed that the Polytechnic provides multiple opportunities for them to showcase their work and skills through projects and work placement to multiple recipients. Showcasing skills help the students to speak about their skills to prospective employers and present them as expected once they get hired. For example (I7) stated "Yes, I think any student in the Polytechnic has a lot of chances in the Polytechnic to showcase those skills and to develop their skills".

Students also provided their views regarding 'Feedback' practice at the Polytechnic. They all agreed that constructive feedback, either from tutors or peers, helps them to improve their skills. However, as they stated, not all of the tutors provide feedback, and for those who do, their feedback is highly appreciated as stated by (I8) "They do give us in-depth feedback on how we can develop ourselves".

A question was particularly asked about reflective practice which had different responses. Engineering students agreed that reflection is a developmental activity embedded in their programme. However, (I4) mentioned that in Engineering, the number of reflective activities is exaggerated, while Business students commended the benefits of reflective practice. (I5) stated that the opportunities for reflection in their programme are fewer. The other Business students emphasised that reflection should be accompanied by proper feedback, this will help the students to improve greatly as stated by (I8) "what I believe that helps more when you have to

talk with your mentor or your academic and in-depth talk, that I believe it helps way more than just writing the reflection".

b. Co-curricular Measures

The general perception related to co-curricular support differs between the interviewed students from Business and Engineering programmes. The involvement in co-curricular activities of those who were from the Engineering programme was rare except for sports activities such as joining the football teams. The low involvement, as stated, is due to many factors including insufficient time, low interest, and scepticism of the co-curricular impact. Business students, on the other hand, were found to be more involved with student activities and services. (I5) spoke about her experience as a member of a team that participated in a national competition called trade-quest. In this competition, teams from different universities are tasked to trade stocks in the US stock market and the domestic stock market. The team with the highest return and best presentation wins. (I5) valued this experience and mentioned how this experience empowered her and boosted her self-confidence.

(I7, I8) from the Business programme stated that they were members of the student council and volunteer club, and both had the chance to become presidents. Their reflection on the co-curricular activities associated with the responsibilities to their roles speaks to the level of development of their self-esteem, self-efficacy, and employability skills.

> *Being part of extra-curricular activities that interest me allowed me to think outside the box and think outside marketing or the business field. I believe that is all from voluntary*

work. After volunteering you do change, and you find yourself as well. Being a leader has a triple effect, I would say triple yeah (I8).

Regarding Academic Advising, most of the students perceived it as a support service received to guide their academic progression and the plan of courses that they have to register for each semester. Most of the students also agreed that this service does not support the development of their employability skills. It is purely regarding the decisions that are required to be taken to progress academically. Only the students from Business-Marketing Major did state that the role of their advisors extended to include coaching and mentoring support, and this helped them to improve their skills and self-efficacy.

The Career Advising service is perceived by many students to be a service of value as stated by (I5) "career centre that helps students to prepare CVs, to do mock interviews for us, review our CVs, and provide a guide for us". Yet some could not provide their opinion as they did not utilise the service.

5.5.4 The Elements Influencing the Development of Students' Sense of Self-efficacy Towards their Employability Skills

Through the interviews, interesting elements emerged as the students were expressing their views regarding employability skills and self-efficacy. These were found to affect the development of students' employability skills and self-efficacy. The elements are pre-tertiary education exposure, reinforcement, variation, and past experiences. In the following section, each element will be addressed from the students' perspectives.

While answering the interview questions, pre-tertiary education was referred to by all students explaining how and what helped them in developing their skills. Most of their experiences were negative regarding their time in school. Five students (I1, I2, I6, I7, I8) reflected on their school experience stating that they did not have the opportunities to work in teams. This perception was from students who attended public and private schools as well.

Communication was another skill that was reflected on by the students. (I3 and I7) stated that communication skills were not properly enhanced in their previous experience at school. Yet, other students from private schools expressed positive experiences related to developing their communication skills in their schools.

> *Ok I come from a private school, so communication is not much of a difficulty for me, since I come from a multicultural private school background (I6).*

Analytical skill was also highlighted by the students. (I2 and I3) stated that at school, there was no focus on approaches to enhance the students' analytical skills, especially in areas like writing and computation.

> *In school, we did not go into analytical things in depth. Like analysing science and maths. When we get a formula, we just solve it. We don't know what this is about, we don't analyse the formula, we don't know what the story behind the formula is (I3).*

Some students (I5, I6, I7) described their learning experiences in school to be 'theory-based' and driven by 'textbooks'. They also mentioned that their schools focused on academic performance mainly with less emphasis on skills.

The second element identified is 'Variation'. In this study, variation means the presence of differences in one context. Examples that were derived from the students' interviews are the exposure to unfamiliar situations, students from different programmes/majors and levels, employees with extensive experiences, different opportunities for projects, different companies, and a mixed-gender environment. All students believe that variation helped in their growth. Also, they mentioned that it had a positive impact on their learning experience and sense of self-efficacy. For example (I6) stated "I feel I have learned a lot from each group, different people, different semesters, different opinions, different attitudes and personalities".

Students strongly emphasised the importance of working with students from other disciplines. As expressed, it motivates them, improves their thinking perspectives, helps them to tolerate the perspectives of others, and manages the different levels of abilities among them.

Though some students find working with others who have different abilities impose some sort of burden on those who are proficient in the targeted skill, some of them consider those variations as opportunities to capitalise on each other's strength and learn.

> *But then I was thinking about the quality of work. In the Foundation year, there was a mixture of levels, some with good English language and some are average and some who are sometimes below average. So, I was thinking, "Am I going to edit their work, am I going to read it all over again" (I7).*

Working with professionals and experts in their field to fulfil curricular requirements or as extra-curricular activities was another prominent variant that was appreciated by students greatly. Some stated that such opportunities helped them to gain experiences, learn from the experts

and establish long-lasting relationships with future potential mentors. As stated by (I5) “I had the chance to meet professionals who had a different point of view and different perspectives seeing things from their own perspective”.

> *Right now, I am working with a team of one Ph.D. holder, old engineers, young engineers, and experienced people. I am working with so many types of people that I know how to communicate with, I know how to work with them in a team properly, and how to actively listen to them because after all, they are the ones with experience, and they are the clients, so I have learned many things from the co-staff (I1).*

As a graduate of public girls’ school, (I5) expressed her perception regarding gender mix. She stated that the exposure to a mixed gender environment helped her to gain confidence and focus on abilities rather than other differences between the genders.

> *When I first entered the university, I came from a government school where I used to be in an environment where it is all females and now moving to the university where it is a mixed environment. In my first course, I was so shy but after that, within that course, I have been approached and persuaded to present in front of tutors but not students yet I had to engage with males so I think that barrier was crashed and I got over it and overcome that issue so after my first course I had the confidence to interact with males and to present in front of the class and front of my tutors. Yeah, I am not afraid of this. I can say that even later this is not anymore, an issue for me (I5).*

Another leading element that emerged from students’ narrations was ‘Past Experiences’. Most of the students expressed the positive impact of past experiences they were involved in. Those

related to internship programmes, part-time jobs, being a member of a sports team, enrolling in external courses, and participating in community initiatives. Among those, internship opportunities and part-time jobs were the most common and highly appreciated experiences by the students. They mentioned that those opportunities helped in preparing them for their future careers and exposed them to work-related expectations that they are anticipating encountering during their professional journey.

> *I was good at working with groups before coming to the institution because I am a former football player and we know that football is a group, a social activity I played for 8 years maybe, and in each year different people, different coaches so the experiences differ by the year (I3).*

Reinforcement is the fourth element that significantly emerged repeatedly through students' interviews. They expressed that their skills changed and refined over the time they spent in the institution. They also voiced their appreciation for the multiple learning opportunities provided to them, the repetitive feedback from their tutors and their peers, and finally the productive reflective practices that they were engaged in which helped in developing their skills over the years of their study at the Polytechnic.

> *In my opinion, my analytical skills are better now, especially analytical writing in English courses and even some engineering courses. We really focus on analytical writing and how it should be made, and we even had workshops to implement it in the senior project which I am doing right now. I don't think that I had this skill before university because my school wasn't so focused on analytical writing unlike descriptive or the other types (I2).*

5.5.5 The Perceived Self-Related Concepts beyond Self-efficacy

Interestingly three concepts related to 'self' were identified from the students' interviews. These included self-awareness, self-efficacy, and self-confidence. Those were also persuaded by Pool and Swell (2007) employability model and described as the 3 closely related Ss. Many people get confused between those concepts as they are used interchangeably in different situations therefore, it is important to differentiate between them by distinctive definitions. Yet those concepts that emerged from the interviews conclude that the final year students are more connected to themselves, aware of their feelings towards their attributes, and able to judge their abilities.

The first self-related concept that appeared through the interviews was Self-awareness. As defined by Merriam Webster it is "an awareness of one's personality or individuality" and this is what kept appearing repeatedly. All students have shown a high level of self-awareness. They have descriptively stated their strengths, and weaknesses, and illustrated the process of how they came to know and judge themselves regarding their knowledge and skills.

> *It was new because I never heard of that before, but after that elective, I started realising that is an area where I lack (I6).*

Some of the students spoke about themselves when they first joined the institution. In the beginning, they were lacking knowledge regarding their abilities and potential, but gradually as they progressed through their studies their self-awareness started to improve in the following years.

> *First of all, I wasn't aware that I had those skills to start with. So okay I thought that I was good at writing but in what writing I was good in? I didn't know. I could talk really good English because I was in private school but to what extent do other people understand me or how I could […] so what is the difference between like when I started at the university at this point my graduating point, it is that I was able to know my skills (I2).*

The second concept is self-efficacy which was emphasised by the students during the interviews since many of the questions were dedicated to understanding their perceptions regarding their sense of the concept. The self-efficacy definition states "to beliefs in one's capabilities to organise and execute the course of action required to manage prospective situations. Efficacy beliefs influence how people think, feel, motivate themselves and act." (Bandura,1995, p. 2) The findings show that all of the students have a sense of self-efficacy. They were able to judge their capabilities and state their expectations regarding their future performance at their workplace. The students were able to judge each of their skills, some were perceived to be performed competently while other skills, as described, would require improvements. Moreover, they appreciated the involvement of the institution in the development of their sense of self-efficacy and described how the adopted measures and practices assist them to judge themselves objectively.

> *After working with several groups, I am now able to know how to deal with situations and know how to act towards it if something negative happens, I know how to act through it and what to do for example (I8).*

The last self-related concept that was accentuated through the students' interviews is 'Self-confidence'. Pool and Swell (2007) provided an easy explanation to differentiate between self-confidence and self-efficacy by stating "If self-efficacy is seen as a belief that one has the capability in a particular situation, then self-confidence could be seen as the way this is projected to the outside world" (p. 286). The majority of the students (5 out of 8) mentioned that after joining the polytechnic and going through the different learning opportunities their self-confidence has increased in many aspects. However, the students repeatedly specified that their confidence has increased mainly in communication skills. This was a result of the measures and practices implemented to develop this particular skill such as CV writing and public relations. Some students stated that they now even feel confident to deal with ambiguity and unfamiliar situations.

> *During my foundation year where I had taken several English courses that I found very valuable and also other courses such as PAL, yeah PAL specifically where I developed my language, English language, which helped me to be confident when I am talking to other people (I3).*

5.5.6 The Absence of a Comprehensive Mechanism to Develop Students' Sense of Self-Efficacy

Referring to the findings, the institution was found to be implementing measures meant to enhance students' employability skills, however, during the interviews, the students highlighted some challenges and recommended some measures to improve the implemented approaches to achieve the purpose of developing students' employability skills and sense of self-efficacy. The recommendations were addressing aspects related to work-based learning, teaching and

learning approaches, curriculum, tutor experiences, internationalisation, reflective practice, feedback, academic advising, and mentoring. The codes address an important theme related to the absence of a comprehensive mechanism that is meant to develop student's sense of self-efficacy which eventually will influence the development of their employability skills.

Though Bahrain Polytechnic recognizes work-based learning as one of its main pillars, and the results show that the students value it, four of the interviewed students expressed that the institution needs to increase its contact with companies and industries, adopt an integrated training approach, improve final year projects and consider work-placements for Business students similar to the Engineering students.

> *We do work with industry a lot, but I think we should do more. Work placement is an elective only, and only in engineering it is a must they do it during summer, but for business students no. So, I think it would be very useful if we had like the summer between the second and the third year. Let's say a month, you can do it just a month even if it is unpaid. But let it be part of our degree, I think we will benefit a lot (I7).*

Regarding the teaching and learning approaches, some of the students were concerned about the way problem-based learning was implemented and they recommended reviewing the implementation of the method. Two students stated that eLearning and blended learning approaches should be integrated more effectively as they could be used to help students with their self-directed learning that takes place outside the classroom. (I6) added that learning could happen in many places like the polytechnic garden, a workplace, and spaces other than the classroom and she requested to consider the recommendation of diversifying learning spaces.

Few students mentioned that the curriculum should be more employability-driven by introducing courses or maybe modifying some of the existing courses to be more employability-oriented. While some students stated that there are elective courses that are worth turning into core courses since those are very beneficial and focus on employability skills.

Regarding staff experience and competency, many students expressed their satisfaction with the support that they used to get from their tutors and commended the valuable guidance and feedback that provided them. Yet, there were 2 who commented on academic staff recruitment and recommended that staff hiring should not be based only on academic qualifications and credentials but also on the practical experiences attained. To portray the employability skills valued by the institution, (I4) stated precisely that all Bahrain Polytechnic staff members are required to show employability skills. He said, “they should lead by example”.

Reflection and feedback were also identified as areas to be improved by half of the interviewed students. (I8) stated that both reflection and feedback should go hand in hand. While (I4) recommended embedding the reflective practice structurally and allowing for feedback to be part of the process instead of considering the implementation of reflection as part of a procedure.

> *What I believe that helps more is when you talk with your mentor or your tutor and in-depth talk. That I believe helps way more than just writing the reflection (I8).*

Finally, few students proposed to include students’ exchange programmes even for a few courses. They highlighted the importance of internationalisation as it helps them to develop

understanding, tolerance, and perspectives of other cultures. They added that the exchange exposure provides opportunities for self-development.

> *You know how foreign universities have the opportunities. One is transfer credits when students want to take a course for a year over there and then come back here. 2nd is like a short-term exchange. So I feel like Polytechnic should be providing that exposure and academically you get to see 2 different lifestyles, you get to learn 2 different course work levels of courses, you get to live in 2 different places, cultural aspects, so if you see this, it is not only personally developing the person, however, academically you are learning and you are exposed to a whole new environment (I6).*

5.6 Staff Interviews

As mentioned at the beginning of this chapter, 10 staff members with different roles and positions were interviewed to explore their views regarding the measures and practices in place to enhance students' employability and sense of self-efficacy. The staff's qualitative findings will be presented in this section.

5.7 Staff Codes

The staff findings were easier to code since their interviews were conducted after the students' interviews. By the time the staff interviews were transcribed and coded the initial transcription and coding of the students' interviews provided the baseline for the staff findings. The staff coding also was carried out through phases starting with an initial coding which was performed manually. Then I kept modifying the codes as I was writing and refining the chapter. As per the advice I received from one of the experts who validated the students' initial codes, after

transcribing and coding the staff interviews, I checked with the interviewed staff to validate and confirm my understanding of their findings. During the recording process, data were compared for similarities and differences. The final codes of the staff interviews include: the preparedness of students for the world of work 'positive and negative affirmation', curricular measures 'work-based learning, authenticity, problem, and project-based learning approaches, tutor support, final year project, showcasing, reflective practice, feedback, and professional certifications', co-curricular measures 'clubs, academic advising and mentoring, competitions, peer support, and community initiatives, influencing elements 'expectations, reinforcement, demonstration, and identity.

5.8 Thematic Analysis Process

During the process, following the reflexive TA approach that was applied to the students' qualitative data, the themes started to emerge gradually, but they were only concluded after finalising the codes and the categories. There were 3 themes extracted from the staff data analysis process that are similar to three of the students' themes:

1. The institution's developmental role in preparing the graduates for the market
2. The implementation of measures that enhances students' employability and influences their sense of self-efficacy
3. The absence of a comprehensive mechanism to develop students' sense of self-efficacy

5.8.1 The Institution's Developmental Role in Preparing the Graduates for the Market

All staff members expressed their positive views and affirmations regarding the institution's ability to prepare the students for the needs of the labour market.

[…] I think our institution as an institution of applied learning does both, ensures the student have the technical skills but it also wants to ensure that the students are ready to be workers, ready to be in the world of work, and also to do two different things to have the skills is one thing but being able to effectively deploy that skill in the workplace by being able to work in teams, to be able to address issues of conflicts, to be able to present effectively, to be able to communicate, those are all skills that allow you to be a successful employee but it is not just about the technical skills so we work hard at that and I hear regularly daily from employers that are paying evidence that our focus on employability is recognised and acknowledged in the workplaces in our jurisdictions (I10).

However, three of the staff members expressed that though the institution is implementing the measures and practices to prepare the students for the world of work, there are more things to be done. One of those three staff members expressed her concern regarding the institution's ability to meet its mission, and she stated that though the institution is still preparing the students for the world of work, it is less than what it used to do originally. While another staff member believes that the institution is doing a great job in preparing the students for the local market, she is not sure about the international world of work.

Yes, I do think that the institution is preparing them, however, I would argue that it is not perfect, they are not fully prepared. So, we are doing things that are preparing the students but there are still some shortcomings (I18).

5.8.2 The Implementation of Measures that Enhances students' Employability and Influences their Sense of Self-efficacy

Staff were asked about their perception regarding the employability-related institutional measures that have an impact on students' sense of self-efficacy. Many elements and measures were identified and emphasised. Most of those measures similar to the students' findings address the curricular measures. Those include expectations, reinforcement, demonstration, identity, work-based learning, authenticity, problem, and project-based learning approach, tutor support, final year project, showcasing, reflective practice, feedback, and professional certifications.

Regarding co-curricular measures, staff members referred to many measures and activities including the opportunities provided by the clubs, academic advising and mentoring, competitions, and community initiatives. However, the Director of Student Services and some other staff members emphasised that though there are many co-curricular opportunities now, there are many challenges that need to be addressed to provide the right nurturing environment for the students to support the development of their employability skills, sense of self-efficacy and confidence.

> *When I took over in 2015, there were no clubs, there were very little of it, in terms of activities that happened on campus. The staffing is a huge issue but now we have 5 approved clubs. We have a lot more activities. We have the sports association, so basically we worked with all of the universities on the island to establish so now there is a fantastic sport for university students we pay into. I think now there are a lot more opportunities similar to that in 2009 in which students can engage with some do and some don't. I think all the regulations that affect*

students have significant influence because there isn't the freedom to do what they want so even in terms of clubs; the CEO does not have the right to approve a club the Board of Trustees has to approve it. So, for example, after a long waiting period, it took us until June to know about a club that was approved in December, and it was only in October that the club was up and running. So, all of those processes so our culture is not good (I13).

a. Curricular Measures

In general, the staff members acknowledged the design, assessment, and teaching and learning methodologies of the programmes offered by the institution. They believe that those measures help the students to strengthen their sense of self-efficacy with a positive impact on their employability.

> *This goes, based on number 1 the assessment structure we have, right from year one it is designed to increase the capabilities of the students and increase their confidence in themselves so this is the way we start through for example presentations, through the class activities we have, through the opportunities we provide them like on year one they do market day as part of their course requirement (I15).*

As described by the staff, the student's learning experience at the institution is enhanced by the design of the programmes and the implemented teaching and learning approaches that are steered by student-centred pedagogies including problem/ project-based learning and work-based learning. As per the senior curriculum advisor, those measures and practices are meant to achieve 'Expectations' and a direct translation of the institutional mission. The expectations are addressed by the programmes and courses' learning outcomes. Besides the pedagogical

approach, students are assisted to meet the expectations by many other means including 'Reinforcement'. As mentioned in the students' qualitative findings section, reinforcement is an element that enhances the skills by exposing the students to multiple authentic opportunities and allowing the repetitive demonstration of the skill. (I12) stated that repetitive exposure to meet expectations assists the students to develop their professional identity.

> *From what I can understand and certainly where I sit in the curriculum there is an expectation that there gonna be lots of presentations so practice presentations, practising all the time, expectations that they will have to present, present to peers, present to staff, present to employers, present to guests and so on. So that's an ongoing thing, there is that confidence I think if you have got that confidence in speaking it gives the confidence in the other areas as well that's you know what you are doing (I9).*

Many of the staff members referred to the importance of tutor support. For example, a staff member referred to the influence of the tutor support in enhancing students' sense of self-efficacy as a 'hidden curriculum' stating that "But I think it is more about the hidden curriculum more than the curriculum itself" (I18). The academic staff members provided an in-depth description of the kind of support offered to the students. These include guidance and coaching, mentoring, sharing real-life experiences, providing constant feedback, and leading by example or (social modelling).

> *What I usually do in my every class during, you know its solid 2 hours, the transitioning times I call on some stories, and those stories I use empathetically so I tell them what was I when I was like you or what other students like you are doing so I tell them if they can do*

you can also do. I also give them examples and pick good things or good behaviours, good work, and then I appreciate it in front of the class. So, it gives the students I am talking about appreciation and also others an encouragement to do that as well. With students who are struggling and weak, I don't do it as a whole class. Usually, I meet them individually and then talk about something that they feel that they are good at and then tell them, okay you are very good at this, and I think you could work on these 2. So, I think giving them confidence in their own, about their selves, is very important but not empty confidence because empty confidence will lead them to failure and even a bigger failure because they are not ready for that. So, I think at the back of my mind the concept of self-efficacy is always there because it is very critical, you cannot risk it (I11).

Projects and specifically final-year projects were also mentioned by the staff members. The continuous interaction of students with industry to meet the requirements of their final year projects is identified as a factor that assists students to improve their sense of self-efficacy and confidence. Another element related to projects is the authenticity of those assessments and their ability to integrate all what has been taught in solving real problems.

I can have a very fair students' test where I am assessing the basic concepts of mechanics… However, I can assess the same concept by asking them, for example, to build a bridge. So, the result of this after 5 weeks of work, the same time that would take them to study for an exam, will be 5 weeks of working together to build the bridge and test it and do all of the other things. But after going through those 5 weeks the students will have a level of self-belief because they did not only learn something and were successfully able to write

it down on a piece of paper in 1 hour period and a very strict environment, that does not give much of self-satisfaction (I18).

All staff members recognized 'Showcasing' as another element that was found to be nurturing students' self-efficacy and employability skills. After all, it is an expectation that students need to work towards and are required to meet. For example, many mentioned that the diversity of audience – students from other programmes or universities, tutors, employers, and government officials – made the students prepared and ready to meet the expectations of the diverse audience. (I12) highlighted that the process that encompasses the preparation for showcasing has a huge impact on students' sense of self-efficacy and employability. Staff members emphasised the presence of this element in the curricular opportunities through projects, specifically in the final year. Few, however, did highlight that those opportunities are also present in co-curricular activities where students can showcase their abilities in a less structured context.

Most of them can, because some of them do industry projects and some of them, for example, we have pushed them to participate in 'Intelaq' Tamkeen competition, through year one and two and this is quite helpful for them to showcase what they have. They are building it stage by stage (I15).

Three staff members stated that though most Bahrain Polytechnic students perform well while showcasing their skills, not all of them can showcase and some might lack important skills yet still graduate.

It is not like 100% all of our students are like that. Okay, I can always say that students have different personalities and stuff like that, but still, I blame the system that can let go.

I mean it cannot filter out those students who are weaker in self-efficacy who go through the system, and they graduate. If we have better ways of identifying those students who are struggling, we can take care of them, we can give them our attention to have better employability skills and stuff like this because I believe you still as a student can pass with high marks from Bahrain Polytechnic degree for example and still you will be lacking some of the core skills (I18).

Four of the academic staff members spoke about the impact of reflective practice and feedback on developing students' self-efficacy. (I12) referred to the formative assessment and its impact in facilitating feedback provided to students. (I16) spoke about the importance of reflective practice in helping students to improve their self-awareness.

b. Co-curricular Measures

Only five staff members from the interviewed staff, including the Director of Student Services and the Manager of Student Affairs, recognized the impact of co-curricular measures while emphasising some more than others. The most perceived among all measures are competitions, student clubs including the student council, and some training opportunities that are either offered by the institution or by externals.

Opportunity for the students to volunteer and work with student council, volunteer club, these are all opportunities for them to enhance their skills and sense of self-efficacy (I15).

However, the Director of Student Services and the Manager of Students Affairs acknowledged more measures provided by the institution that supports the development of students' self-

efficacy such as peer support through an institutional program led by students and coaching and mentoring support.

> *Also, our pass leader so that peer-assisted student support which is a peer tutoring that runs out of the library so the students that engage in those extracurricular activities you see them from you know day one through their life here at the Polytechnic there is a shift in their self-efficacy and in their confidence in all of those employability skills that we are trying to work with (I13).*

5.8.3 The Absence of a Comprehensive Mechanism to Develop Students' Sense of Self-efficacy

The staff members recommended measures to improve the institutional employability framework. From the self-efficacy focus, the staff identified many areas to consider. Their recommendations were addressing aspects similar to those identified by the students including curriculum, work-based learning, tutor experience, internationalisation, reflection, and academic advising and mentoring. However, the staff members identified more areas that need to be considered such as co-curricular activities and students' psychological well-being.

Similar to what was recommended by the students, the staff members had also a few recommendations related to the curriculum. Four staff members including the CEO and the Senior Curriculum Specialist stated that the curriculum requires to be more employability-driven. Out of the four, two staff members stated that the curriculum should provoke innovation, creativity, and entrepreneurship. (I11) mentioned that the curriculum should be characterised as an 'antiaging' curriculum.

Reflecting on his previous experience, the CEO elaborated that in the future, a centre of Innovation Excellence could be developed where students, academic staff members, and people from the industry could work collaboratively.

> *I can recall very explicitly a centre of excellence and advance manufacturing where all the things that I have just talked about like the tools, where there so leading edge technology in 3D printing and mechatronics and robotics so that infrastructure was there but it was also a place where industry, faculty, students converged and it was remarkable to see the growth of the students who were being invited to be part of engineering team and see them over the course of 6 – 12 months in an intense period come out of their shell to take their knowledge they learnt in school and then start to interact with these industry, real professionals on a regular and daily basis and being welcomed in as a member of the innovation team (I10).*

Though the students recognized internationalisation as a concept worth to be embedded to improve employability and sense of self-efficacy, their recommendation was limited to an exchange of courses only. On the other hand, staff also recognized the benefits of internationalisation, however, they stated that there are many areas that students may gain from as a result of internationalisation. That includes an exchange of opportunities, an international curriculum, and co-curricular activities that incorporate workshops, summer schools, internships, and cultural activities. (I11) stated that usually for a public institution, the international opportunities are expansive, therefore, to provide similar opportunities for students, it would be beneficial to capitalise on rich international experiences available on the island with formal

approaches in place. (I14) stated the advantages of such experience include “sharing knowledge, skills, history even like language”.

The recommendations provided by the staff members related to work-based learning, tutor experience, reflection, academic advising, and mentoring were similar to the students’ recommendations. However, the staff members have also made some more recommendations related to co-curricular activities. Their suggestions include conducting more exhibits, workshops, competitions, and short courses. They stated that such activities would help in enhancing the students' sense of self-efficacy and improve their employability skills.

Another area of recommendation that is recognized by the staff members only is improving the psychological wellbeing of the students. Two of the staff members said that the policies and regulations should be adjusted to nurture students’ experience and induce a sense of self-confidence and efficacy. The Director of Student Services stated that more qualified staff at the Directorate are needed such as a counsellor, to meet the student's psychological needs and address their mental health. Three other staff members recommended preparing the students in a way to take risks and accept failure as part of their growth. Though it is somehow happening in the Marketing Major of the Business Programme, having the dedicated service, as they described, will prepare the students for real professional life and will develop their resilience.

5.9 Summary

In this chapter the gathered qualitative findings through students’ and staff interviews were analysed and interpreted. Six themes have emerged from the students’ interviews while 3 themes -which are similar to the students’ themes- emerged from the staff interviews. The first

theme addresses the institutional developmental role in preparing students to be graduates of choice for the labour market. The findings showed almost unanimous agreement among all the interviewed participants regarding the institution's ability to prepare the students for the labour market. The second theme addressed the employability skills that the students acknowledged being developed by the institution and their sense of self-efficacy towards those skills including communication, teamwork, learning, and analysis. According to the student and staff findings, the third theme was about the implementation of employability measures that influences students' sense of self-efficacy. The measures applied by the institution were classified as curricular and co-curricular measures. The curricular measures, including applied teaching and learning methodologies, the design of the programmes offered, the tutor support, and the different practices implemented in the classroom such as reflective practice and constructive feedback were almost perceived to impact the majority of the participants. While the co-curricular measures were perceived differently by the students however the staff members elaborated on the positive impact of these measures. The elements influencing the development of students' sense of self-efficacy towards their employability skills was the fourth theme that emerged for the students' interviews mainly through the staff also shared similar perceptions. Those elements were pre-tertiary education exposure, reinforcement, variation, past experiences, expectations, and identity. From the rich data obtained, the students can be described to be self-oriented given that most of their findings reflect a level of self-awareness and self-confidence and accordingly the fifth theme emerged addressing students' perception regarding self-related concepts beyond their sense of self-efficacy. Finally, the absence of a comprehensive mechanism to develop students' sense of self-efficacy towards their

employability skills was one of the main themes that the students and the staff members' data supported based on the gaps that they identified and the recommendations that they proposed. The next chapter will discuss the findings and will present the contributions.

Chapter Six: Discussion

6.1. Introduction

In this study, an understanding of employability and self-efficacy of undergraduate students of a Bahraini public higher education institution - Bahrain Polytechnic was investigated. The institution is missioned to produce work-ready graduates with the twenty-first-century skills to cater to the market needs as per Bahrain's Economic Vision 2030 (www.polytechnic.bh). Since the establishment of the institution, the curricular and co-curricular measures as well as the offered services were developed and are still centred around employability. As the institution started to gradually embed employability measures, issues related to the concept started to appear. Those issues were constantly addressed to optimise the alignment of the practices to meet the institutions' mission. Examples would be the adoption of the employability definition and the development of the Bahrain Polytechnic Employability Framework. Yet, the institutional reports show that the graduates still have issues in demonstrating some of the employability skills required by the market. The review of the literature regarding employability measures and frameworks sheds light on self-efficacy as an integral concept that helps the development of students' employability. Bahrain Polytechnic does not acknowledge the self-efficacy concept nor has a dedicated strategy or measures to increase students' sense of self-efficacy. Therefore, this study was conducted to answer:

What approach does Bahrain Polytechnic need to take to enhance the students' sense of self-efficacy to develop their employability skills?

The undergraduate student and staff members' understandings regarding the measures and support provided by Bahrain Polytechnic in developing students' employability skills and how that influences the students' sense of self-efficacy were explored in detail. Four questions are pursued to be answered by the mixed-methods approach as intended in the Research Methodology Chapter. The quantitative method and the qualitative method were to answer the following questions:

1. How do the final-year undergraduate students perceive their sense of self-efficacy in their employability skills?
2. How do final-year students and staff perceive the role of the institution in developing undergraduate students' employability skills?
3. How do final-year students and staff perceive the curricular and co-curricular employability implemented measures and practices in enhancing the undergraduates' sense of self-efficacy?
4. From the final year students and staff perspectives, what are the other measures and practices that would improve students' sense of self-efficacy?

Using the mixed-methods explanatory sequential design (Creswell, 2014), the first and the second questions were answered by the survey while the interview helped in extending the findings of the second question and answering the third and fourth questions.

As stated, the study responded to the first question where final year students' sense of self-efficacy was explored concerning the main four domains of employability skills and their subscales including communication skills, analytical skills, collaboration skills, and professional skills through (ESSES) Ciarocco and Strohmetz (2018) questionnaire. The findings helped to

establish a baseline understanding regarding students' sense of self-efficacy of their employability skills in the absence of similar data in the institution. Moreover, to answer the second question, the questionnaire helped in gathering primary data regarding students' satisfaction with the institutional measures, practices, and services that are meant to develop their employability. While more in-depth responses to the second question were gathered through student and staff interviews. The third and fourth questions were also attended through the interviews. The staff and students' qualitative data was used to build on the quantitative data to further explore in-depth understandings of their perceptions regarding the scope of the study. Reflecting on the results and the literature, this chapter will interpret, explain, and evaluate the findings as well as elaborate on the significance and implications of the results. It will outline the contribution of this study to the body of knowledge in the field of employability in higher education. Moreover, strengths and limitations will be also highlighted with future consideration to build on the work of this study.

6.2 Summary of Findings

Based on the study's synthesis of undergraduate students' data the result shows that the final-year students of Bahrain Polytechnic have a sense of self-efficacy towards their employability skills. Moreover, the findings revealed the students, and the staff members appreciate the practices and the measures embedded by the institution to enhance students' employability skills. The findings from ESSES questionnaire showed that the majority of the students had an average level of perceived self-efficacy in the four employability skills domains (M=4.6 out of 6 points) and the subscales of each domain. Moreover, the findings from the interviews, through the students' detailed answers confirmed the development of the students' sense of self-efficacy

toward their employability skills. To further confirm, the repetition of the word 'Self' that has continuously and intensely emerged through all students' narration during the interviews has endorsed that the students are self-aware regarding their abilities as the study intended to explore. Dinther *et al*. (2011) explained that there is a great value attached to 'Self' when individuals keep referring to their capabilities. It has been also highlighted that self-reflection is an indicator of self-referent; in which individuals get to evaluate and modify their perceptions and attitude (Bandura, 1997; Dinther *et al*., 2011). Furthermore, many researchers in education recognized self-awareness as a factor that helps students in developing their sense of self-efficacy (Schunk, 1991; Pool & Sewell, 2007; Yang & Lu, 2007; Bezuidenhout, 2011; Redmond, 2013; Pool, Qualter, & Peter, 2014). Interestingly, in this study all the students' explained in detail matters related to their self-awareness, self-efficacy, and self-confidence. They discussed how the measures helped in developing their insights about their employability skills and their impact on their sense of self-efficacy.

Through the second stage, the findings from the students and the staff members showed that many of the employability-driven curricular measures had influenced the development of students' self-efficacy including the teaching and learning methods implemented in the institution, the design of the offered programmes, the support provided by their tutors and also the classroom practices such as implementing reflective practice and the provision of continuous constructive feedback. Regarding the influence of the co-curricular measures on students' self-efficacy and employability skills, the second stage confirmed that the students and staff members had different views regarding the influence of these measures including, for example, the students' appreciation of the impact of participating in the activities of the students' council or

activities such as local and international competitions. While a group of staff members appreciate such activities and believe in their impact on enhancing students' self-efficacy.

Furthermore, the interviews revealed that four core self-efficacy-enhancing elements emerged and were clearly emphasised by the students in their interviews. Those are:

1. Pre-tertiary education exposure to employability (where the students are exposed to employability measures during their pre-tertiary education)
2. Variation (where the students are exposed to different settings and different people with diverse experiences)
3. Reinforcement (where the students are exposed to employability measures repetitively)
4. Past experiences (where the students were involved in experiences such as part-time jobs).

6.3 Contribution to Knowledge

This study has contributed to the body of knowledge mainly in the higher education field and specifically to employability skills and self-efficacy. According to the literature review findings, there are still issues with higher education's ability to prepare work-ready graduates for the market (British Council, 2015). Those issues related to the multiple interpretations of the employability concept, the challenge of embracing a comprehensive approach to embed employability at higher education institutions, and the absence of contextualised frameworks and models at almost all higher education institutions in Bahrain that provide a structural approach to employability. When searching for literature review studies, none of the papers were found to be focusing on the exact scope of this study. Most of the studies were found to address

only an aspect or two that was attended by this study. For example, papers were found to either address employability or self-efficacy in their context. Moreover, papers that were found to address employability from a self-efficacy perspective were only focused on a skill or two concerning self-efficacy without attending to the set of employability skills comprehensively. This section might provide some insights into the issues that were mentioned above.

6.3.1 Students' Self-efficacy Development Approach

To attain a comprehensive approach to embed employability, it is time for higher education institutions to shift the focus from just comprehending the existing employability models to explaining what is required to be done to ensure students' learning and finding what makes learning achievable (Wright & Osman, 2018). Referring to the employability models addressed in the literature review, it is clear that the USEM model by Yorke and Knight (2004a) as well as the CareerEDGE model by Pool and Swell (2007) focused on self-efficacy as a fundamental element. The models emphasised the importance of enhancing students' sense of self-efficacy to develop their employability skills. They argued that a positive sense of self-efficacy is essential to nurture all aspects of students' employability potential given that the understanding of knowledge, skills, and the provision of effective metacognition is in place in the case of the USEM model. While in the CareerEDGE model, learning about careers, work experience, and subject knowledge and skills provided. However, the work presented here suggests that the models are either unclear regarding the methodology of how to enhance students' sense of self-efficacy as in the USEM model by Yorke and Knight (2004a) or referred to a fixed number of mixed components meant to develop students' sense of self-efficacy with an impact on developing their employability skills as in the CareerEDGE model by Pool and Swell (2007).

The USEM model mainly displayed “four broad and interlocking components” (Yorke, 2004b, p. 411) these are believed to have an impact on developing students’ employability. However, the model did not address the way of developing students’ sense of self-efficacy as the model mainly focuses on employability development while self-efficacy is just a component that helps in developing it. As described in the literature review, while addressing self-efficacy USEM model mainly focused on the self-theories about malleable and fixed self without providing a workable approach for the academics. The authors spoke about students’ ‘deep learning’ and having more belief in their abilities when faced with challenging situations, but they did not explain how and what would enhance students’ self-efficacy. Yorke (2004) presented a paper that speaks about the perspectives of some students regarding employability in the undergraduate curriculum based on three recent UK-based research studies at the time. The analysis of the curricular measures addressed Understanding, Skills, and Metacognition but not Efficacy. Self-efficacy was not attended by the study though it is one of the main principles of the USEM model. This could be because the model was new at the time, and it is more tangible to address practices and measures meant to develop students’ knowledge and skill at the beginning. Yorke and Knight (2007) also explored the effect of teaching and learning methodologies in developing a student sense of self. Yet, pedagogies are just one aspect of classroom practices that students get to be exposed to during their learning journey. In 2010, Yorke published a paper ‘Employability: aligning the message, the medium and academic value’ emphasising the need of fostering self-efficacy in an employability-oriented curriculum. The paper described the application of some examples of student-centred pedagogical approaches to develop students’ employability with no reference to how to enhance their sense of self-efficacy. Most of the studies conducted by Yorke

and Knight explaining the USEM model where directly targeted employability-oriented pedagogies, even the studies that built on the USEM model by other researchers.

On the other hand, the CareerEDGE model which is more practical for academic staff than the USEM model consists of five main components (described in the literature review chapter):

1. Career development learning,
2. Experience,
3. Emotional Intelligence,
4. Generic skills,
5. Degree subject knowledge, understanding, and skills that are believed to improve students' employability through reflective practice.

These components are of practical use to academics in terms of the way to enhance students' self-efficacy. For example, as an interpretation of the model, the academics would understand that they can embed activities that focus on career development learning through the available curricular and co-curricular learning opportunities (Pool and Sewell, 2007). Then they have to encourage the students to reflect on their learning to increase their self-awareness. The continuous reflective practice affects their self-efficacy, self-confidence and eventually will help in developing their employability (Harvey, 2003; Pool & Sewell, 2007). However, the CareerEDGE model focused only on five components where some can be categorised as specific measures like 'the career development learning' and 'the degree subject knowledge, understanding and skills' while others are general and abstract like 'emotional intelligence'. Mixing measures with concepts can cause confusion and might affect the implementation of the employability agenda

in higher education institutions, moreover, focusing on specific measures may limit the academics of introducing measures that would help the students to develop their sense of self-efficacy toward employability skills.

In conclusion, both models did not provide a clear practical approach to help academics to enhance students' self-efficacy nor referred to the self-efficacy-enhancing factors. The USEM model displayed only the main concepts that help in developing students' employability. There was no explanation of what and how to enhance students' self-efficacy. The representation of self-efficacy at its conceptual level is evident however it is not practical enough to develop self-efficacy-enhancing practices. This could be due to an assumption that the adopted and implemented measures by higher education institutions are eventually expected to develop students' sense of self-efficacy. While the CareerEDGE model is limiting self-efficacy, improving opportunities to specific measures through many measures as per Bandura's sources of self-efficacy (1994) could contribute to the development of the students' self-efficacy. As per the staff interviews the Curriculum Development advisor (I9) and the Student Services Director (I13) emphasised on institutionalising practices related to enhancing students' self-efficacy and employability.

> *I do still have some concerns that we need to institutionalise some of the practices have had happened, we have had some amazing staff in the past who have taken that role on in terms of developing students self-efficacy and those employability skills and so on and I am concern that a lot of those people have left and not necessarily replaced with people of same calibre so will our students have those skills […] I do have some concerns about that (I9).*

(I13) expressed the same concerns reflecting on what she called 'the climate and the culture of the institution' as she stated:

> *Unless we can get some other things changed in terms of culture, yes you can affect climate, but culture is much harder to change because these are our rules and this is how we do things (I13).*

Staff require a practical and clear methodological approach to help them in embedding the concept and improving students' sense of self-efficacy to develop their employability skills in day-to-day practices (Pleschová & Simon, 2012). Therefore, in this study, the implemented institutional employability measures were categorised in terms of their influence on students' self-efficacy. The approach of categorising the employability measures based on their level of influence on students' self-efficacy will help the academics to recognize the self-efficacy influential measures and embed them in their daily practice through a structural approach. Since Bandura's four sources of self-efficacy (1994) approach is practical and malleable the measures could be classified accordingly. For comprehensiveness, each source could incorporate several measures as well as newly identified measures rather than just comply with a fixed list provided by a model. Academics need to understand the sources of self-efficacy to classify the measures as they encounter them rather than complying to implement an approved list of measures. The approach will be explained in the recommendation and conclusion chapter.

6.3.2 Self-Related Concepts

Another contribution to knowledge from this study is regarding self-related concepts. The qualitative findings showed that whenever the students asked about their employability skills, they referred to aspects related to 'Self'. Besides self-efficacy, two other self-related concepts were identified including self-awareness and self-confidence. Though the aim of the study was to explore students' perception of measures intended to enhance their employability skills and influence their sense of self-efficacy, the other two concepts kept emerging through the students' interviews. The findings suggested that the students who participated in the interviews have reached a deep learning level with malleable selves. This was evident through their continuous reflection on their skills and how those progressed over time as a result of the curricular and co-curricular measures implemented institutionally. They also elaborated on their feelings during the time and their understanding regarding the approaches that they have to undertake to learn new things.

As pointed out by Dweck (2000), those who are characterised by malleable selves, who can reflect and are self-aware perceive tasks as learning opportunities rather than as performance-based opportunities to exhibit their abilities. Raty *et al*. (2018), study suggests that 'Ability selves' have a role in building confidence toward one's employability.

The USEM model referred to students' belief regarding their abilities by the acronym 'E' which is 'Efficacy beliefs'. No further information was provided regarding other self-related concepts such as self-confidence, self-esteem, and self-awareness. While the CareerEDGE model by Pool and Swell (2007) referred to self-related concepts including self-efficacy, self-confidence, and self-

esteem which are essential to developing learners' employability. Yet there was no reference to self-awareness as a component in the model. It could be due to the presence of reflective practice as a component in the model and the assumption that the students are expected to undergo continuous reflection and evaluation processes to develop their self-efficacy, self-confidence, and self-esteem as presented in the model. Reflection and evaluation are measures known to increase self-awareness, yet emphasising it through the employability model will show the comprehensive relationship between the self-related concepts, and it will help the academics and well as learners to understand the model better. The findings of this study came to acknowledge the importance of presenting self-related concepts in employability models and supporting the existing literature.

6.3.3 Self-efficacy Enhancing Elements

Moreover, the following four enhancing elements that emerged from the student and staff interviews are considered a contribution to knowledge. The elements are highly contextualised to the mission of the institution and all the specific measures implemented by Bahrain Polytechnic to develop students' employability. The finding would require the attention of the staff who are working in employability-driven higher education institutions intending to develop students' sense of self-efficacy. The self-efficacy-enhancing elements as presented in the findings chapter are:

1. Pre-tertiary education exposure to employability,
2. Variation,
3. Reinforcement,

4. Past experiences.

a. Pre-tertiary Education Exposure to Employability

During the interviews, the students broadly spoke about their learning experiences in school before joining the polytechnic and how those experiences had an impact on their self-efficacy. While most of the experiences shared were found to have a negative impact on the students such as the inauthentic teaching and learning approaches applied back then.

> *My high school is solely theory-based and direct, yes so we were never taught anything other than the textbooks (I6).*

Yet, some spoke about positive experiences including the development of communication skills which is mostly among those who were in private schools. Moreover, students who had an active role in co-curricular activities during their time at school stated that such opportunities had a positive impact on improving their soft skills. Pre-tertiary education should provide nurturing learning opportunities for students as early as possible to develop their employability skills that will eventually impact the development of their self-efficacy. The developmental and comprehensive approach to employability from school age till later stages in life help individuals to transfer their skills from one level to another and build on them. Starting with introductory aspects of the skills that could be gained in the early stages and progressing to skills that can be applied in various contexts with different levels of complexity enhances students' self-efficacy. Though the remit of this study focuses mainly on higher education measures and practices, to embed employability requires a national comprehensive approach. As a knowledge contribution of this study, the Pre-tertiary Education Exposure element needs to be looked at with a

magnifying lens by policymakers to provide a comprehensive developmental infrastructure for the progression of employability skills from one educational level to another.

b. Variation

The second element is 'variation' which stands for variation of exposure. As stated by the students and the staff members, the variant exposure provided by the learning opportunities at the institution helped the students to enhance their sense of self-efficacy and employability skills. Vygotsky (1978) proposed that when students are guided by more 'knowledgeable others' their learning process improves. The findings identified variation in terms of students working with students from different levels within the programme and other programmes, students learning in different setups including on campus and at the workplace, and students learning from different levels of experts and professionals at the workplace while engaging in real-life projects and problems. Wright and Osman (2018) stated "The secret of learning is to be found in the pattern of variation and invariance." (p. 262). As explained by Marton and Pang (2013), learning occurs among learners from experiencing differences against the same background. Learners can only recognize a new meaning by comparing different meanings and recognizing the difference between them (Marton, 2015). However, the pattern of variation and invariance in education does not necessarily assure learning but facilitates it (Kullberg, *et. al.,* 2016). Wright and Osman (2018) also emphasised that variation in pedagogical methods leads to better learning outcomes. In Bahrain Polytechnic, applying different teaching and learning methodologies such as Problem-Based Learning, Project-Based Learning, and Work-Based Learning highly depend on variation as a concept. For example, as mentioned by some of the students from both Engineering and Business programmes, in a course such as Introduction to Management students from different

programmes work together while Problem-based and Project-Based Learning methodologies are applied. They explained that such opportunities allow knowledge and skills to transfer from students to students with different backgrounds through different approaches. Variation stimulates the development of students' incremental and malleable self-belief as described by Dweck (2000). According to the social constructivist approach, the interactions between students with different abilities allow the students to critique and reshape their learning (Vygotsky, 1978; Crawford, 1996). The massive engagement with new exposures allows students to compare their knowledge and skills to the knowledge and skills of the encountered people that they work with. It helps them to facilitate the incremental improvement in students' self-awareness regarding their abilities that are related to their employability skills. (I3) shared and also clearly stated the impact of variation in his statements:

> *The students from different majors which helped us like to think outside the box but from different perspectives, not only engineering perspective (I13).*
>
> *[…] I am working with a team of one Ph.D. holder […], old engineers, young engineers, and experienced people. I am working with so many types of people that I know how to communicate with, I know how to work with them in a team properly, and how to actively listen to them because after all, they are the ones with experience, and they are the clients, so I have learned many things from the co-staff (I13).*

Skills that were judged through experienced variation can be open for further improvement through more variant experiences (Wright & Osman, 2018). Higher education institutions should

consider including variation as one of the main principles in their curricular and co-curricular learning opportunities.

c. Reinforcement

The third element is 'reinforcement'. It is another element that is essential for incremental improvement as implied by the students and the staff members through the interviews.

> *I gained the skill at the beginning of my third year. It took time because it is something you cannot learn by a paper and a pen; you have to practise and get constant feedback (I7).*

Bahrain Polytechnic recognizes three levels for developing the employability skills of students through curricular learning opportunities. The development of the skills starts at the Introduction level, then reinforcement, and finally through the assurance of learning level. Most of the students get to be introduced to employability concepts and skills at the foundation level through the foundation programme. As mentioned by the students during the interviews, the foundation courses include specific learning outcomes meant to introduce the students to the eight employability skills as approved by Bahrain Polytechnic. In the following years (1 and 2) the employability skills are embedded implicitly in the learning outcomes of the courses and occasionally in an explicit manner. This approach helps in reinforcing the skills and provides the students with multiple exposures to develop their skills through different opportunities at different complexity levels. Assurance of learning occurs in the advanced years (years 3 and 4). Students' attainment of employability skills is assessed through their Collaborative Learning Project courses. The findings from the students and the staff members' interviews acknowledge

the final year project's impact on the development of the students' employability skills and their sense of self-efficacy. Bahrain Polytechnic's strategy of embedding employability skills through the three levels should continue as a practice with a positive impact. Yet the argument here is that the strategy of reinforcing employability through implicit application in curricular opportunities will not ensure the consistency of practice. Therefore, a curricular structural approach through constructive alignment of learning will provide a cohesive method to ensure the expected exposure to employability skills which will aid in developing students' sense of self-efficacy.

On the other hand, the findings indicated that the reinforcing activities were mainly through curricular learning opportunities, yet the students who were involved in co-curricular activities spoke about the multiple exposures that they encountered to apply their skill again and again. Skills such as communication, working in groups, and other skills. Christopher *et al*. (2016) applied the reinforcement concept to evaluate learners of a Building Healthy Urban Communities program by using a stepwise skill reinforcement model. The evaluation was designed to be conducted at four distinct points. At each point the established skills were reinforced as it was assumed that they would add to the learners' skill base, moreover, the learning outcomes were also measured. The outcome of measurement across the four points suggested that the learners were implementing specific skills and principles in their practices and the programme design helped them from preparation to actual change in practice (Christopher *et al*., 2016). This indicates the influence of reinforcement concept in the progression process of learning and according to the students' findings it influences self-efficacy and the development of employability skills.

d. Past Experiences

The fourth element addresses the importance of past experiences. Many of the students spoke about their job experiences before and after joining the Polytechnic. Those experiences vary between full-time to part-time jobs and some were involved in internship programs as well. Students highly valued those experiences. They acknowledged the impact of their past working experiences on their employability skills, self-confidence, and sense of self-efficacy. They also emphasised the importance of experiences gained from programs and activities other than work that sits outside the institution such as being a member of a sports club and enrolling in other training programmes.

> *Me going for internships and training programmes has also helped me develop. So it is like polytechnic plus other programmes (I6).*

Bahrain Education and Training Authority (BQA) recognized and acknowledged the learning that takes place outside the higher education institutions. Those are considered either informal or non-formal types of learning. Informal learning is defined as "learning that is not organised or structured, has no set objective in terms of learning outcomes, and is never intentional from the learner's viewpoint. Typical examples are learning which is gained through work-related, social, family, hobby, or leisure activities and experiences" while non-formal learning is defined as "organised education and training outside formal education or training system, which lacks common Formal learning elements such as curriculum, syllabus, or accreditation. Non-formal learning may be assessed but does not typically lead to formal certification. Examples of non-formal learning include learning and training activities undertaken in the workplace or voluntary

sector and through community services programmes" (NQF Handbook, 2020, p 8 and 9). Kyndt and Baert (2013) conducted a systematic review of research papers about antecedents of learning among employees that exist in the workplace. They argued that different types of learning should not be dichotomized, especially formal and informal learning. As they described, those types of learning immerse into each other to form the learning process comprehensively. They are part of a continuum that ranges from completely unstructured learning 'informal learning' like the learning that takes place at the workplace and gradually progresses to structured learning through educational setting 'formal learning'. They also emphasised that those types of learning complement each other. This is what (I6) meant when she said, "it is like polytechnic plus other programmes". The student emphasised on the importance of being exposed to informal learning which helped her along with the curricular learning opportunities provided by the institution. The findings of Kyndt and Baert (2013) systemic review also revealed that the self-efficacy of the employees is an important predictor of their participation in any learning opportunity. Thus, to improve individuals' learning intention and their attitude towards long-life learning as one of the important employability skills, the development of learners' sense of self-efficacy should start before their career life or could be as stated by the students during their studies.

Past experiences and different types of learning should be recognized as influencing elements that help in nurturing students' sense of self-efficacy and aid in developing their employability skills.

6.4 Geographical and Methodological Contribution

An explanatory sequential design of a mixed-methods approach was applied in this study to explore perceptions regarding undergraduates' employability and the development of their self-efficacy. To my knowledge, no study was conducted in the Kingdom of Bahrain exploring the scope of this study nor in the region focusing on exploring undergraduates' self-efficacy concerning their employability skills. The uniqueness of this study is not limited to exploring this specific scope in Bahrain but also applying the mixed-methods approach and specifically the explanatory sequential design to understand the participants' perceptions in an institution that lacks precise data regarding students' employability about their sense of self-efficacy.

In terms of methodology and design, most of the papers applied the quantitative approach to explore specific aspects related to employability, self-efficacy, or self-efficacy in relation to employability. Only a few papers were found to apply the mixed-methods approach such as the Hinchliffe and Jolly (2011) paper where they explored employer expectations regarding graduates' skills and the Jones (2016) paper that examined the impact of an academic programme on students' perceptions regarding their employability skills. Even though those mixed-methods approaches are applied in the few papers that I have found yet the scope of those papers are not completely aligned with the scope of this study.

It is unique to apply the explanatory sequential design of the mixed-methods approach to explore the aspect of the study. However, the combination of qualitative and quantitative approaches was essential as the baseline data regarding students' sense of self-efficacy toward their employability skills was not available. The initial findings were gathered through the quantitative

approach while to build on the baseline data the qualitative approach was applied to provide a complete understanding of the explored concepts of the study.

6.5 Contributions to Policy and Practice

The contributions of this study to policy and practice range from institutional to national levels, and these are discussed in detail below.

6.5.1 Institutional Policy and Practice

The findings are consistent with the provision of an institutional structure in place that helps the students to develop their sense of self-efficacy towards their employability skills. This is the first exploration of the value and impact of adopting such a structure for the students' outcomes. The result of the study is appreciable since the institution does not recognize self-efficacy and did not formally address the notion of developing students' self-efficacy through its internal employability framework or any of the measures that are meant to develop students' employability. The Bahrain Polytechnic Employability Framework was developed and launched in 2016 to include measures just meant to enhance students' employability skills (Appendix 2). Back then, the developers intended to focus on students' employability without considering their sense of self-efficacy. The framework includes the curricular measures (e.g. the application of a problem-based learning approach) and the co-curricular measures (e.g. competitions) which are believed to develop students' employability.

Some might argue since the institutional framework has been shown to enhance students' sense of self-efficacy, what more could be done? As mentioned earlier, the measures were not intentionally chosen based on their ability to develop students' sense of self-efficacy, this study

demonstrates that this is likely to be. The study also revealed that 'Expectations' should be clear for the academic staff members and the students from the beginning of the students' journey at the institution. Employability-related expectations were clear for the academic staff members and students through the employability institutional framework however the framework was silent regarding self-efficacy. If staff and students can name the self-efficacy-related expectations to be fulfilled by the students' during their journey at the institution, the staff will be able to guide the students clearly and the students will be in better control of their learning.

Aligning with self-efficacy employability-driven models such as the USEM and CreerEDGE (York & Knight, 2006; Pool & Sewell, 2007) constructive alignment principle could be applied at a conceptual level to enhance clarity and achieve expectations. Commonly, the principle is applied at the curricular level only. As defined, it is a principle that directly addresses the curricular learning outcomes/ objectives through the teaching and learning methodologies, instructions, activities, and assessments (Biggs & Tang, 2011). Similarly, enhancing students' self-efficacy could be constructively addressed by modifying the institutional employability framework. As Pegg *et al.* (2012) advised considering an individualised conceptual approach to cater to both students' and academic staff members' needs. Accordingly, the expectations would be clear to all and could be communicated to the students at the start of their journey at the institution. Following that, measures would be identified, aligned, and then embedded to meet the self-efficacy expectation. As explored through the review of literature, Bandura (1994) has provided an operational approach to categorise the sources of self-efficacy. As mentioned at the beginning of the chapter the academic staff could use the sources of self-efficacy as they plan the employability measures to implement. For example, incorporating a work-integrated method in a course can be

considered a measure that fits the performance accomplishment source of self-efficacy. This approach of evaluating the employability measures will help the staff to identify, adopt and classify the measures according to the sources of self-efficacy. It will also help to incorporate more measures from high-impact sources (e.g. performance accomplishment) and incorporate measures from sources that lack enough measures. Moreover, after modifying the institutional employability framework the presence of the sources of self-efficacy will be extremely useful to those who just joined the polytechnic as academic staff members with minimum background in teaching and learning as they were mainly hired based on their industrial background. Given that they have not been structurally prepared to teach in a higher education institution, the presence of the sources of self-efficacy in the framework will set the expectations for those. Moreover, induction and training will provide them an understanding of how to practically choose and plan the employability measures with different levels of self-efficacy impact.

Accordingly, the curricular and co-curricular measures and practices identified through the data collection stages will be evaluated against the four sources of self-efficacy in the next sections.

6.5.2 Sources of Self-efficacy and Curricular Support

As mentioned, the survey results showed a positive, linear, strong, and statistically significant correlation between the impact of the curriculum and students' perceived sense of self-efficacy in the four employability skills domains. The findings from the interviews also confirmed that the students had an overall positive perception regarding their preparedness by the institution with the right requirements for their future jobs. Looking in-depth, the emerging results showed that the institution helped in developing students' sense of self-efficacy towards skills in

communication, teamwork, and learning and provided curricular opportunities that incorporate measures that enhanced their sense of self-efficacy in many employability skills domains as well.

Referring to the curriculum definition in the literature review chapter under the Curricular Approach section, in this study curriculum was addressed from its broad perspective to include all the structural curricular learning opportunities. However, at Bahrain Polytechnic, 'curriculum' as a term has not been defined among the institutionally approved glossary of terms. Yet, the closest term to the curriculum is 'Programme' which is defined as a "generic term for a group of one or more courses, requiring students formally enrol at Bahrain Polytechnic and usually leading to a qualification or other award" (www.bahrainpolytchnic.bh) The institutional official document that addresses programme is found in the institutional Programme Approval Policy and it is called the Programme Approval Document (PAD). Each programme at Bahrain Polytechnic should have a PAD. The document includes a description of the programme, programme intended learning outcomes (PILO), core and optional courses, the map of the programme learning outcomes to the course learning outcomes, and the specific requirements for programme entry and qualification completion. All other elements of the broad definition are either addressed in the institutional employability framework through either the curricular learning opportunities, other policies such as assessment policy and teaching and learning policy or not addressed at all such as learning environment, mode of delivery, hidden curriculum, blended learning approach, synchronous and asynchronous learning, and cultures. The quality and the consistency of the implemented measures might be affected as stated in a previous section in this chapter regarding students' self-efficacy development approach.

The broad, adaptable, and comprehensive notion of 'curriculum' provides a space to encompass all aspects that help students to develop their experiences and prepare them with the skills, knowledge and attributes required by the market. Moreover, it helps to meet the 'expectation' related to self-efficacy. As emphasised by Yorke (2010), the curriculum should recognize employability and should foster the elements that address the students' psychological aspects such as self-belief to have an impact on their achievements. Reflecting on the findings of this study, the students and staff members acknowledged and agreed that many of the curricular employability measures in place enhanced students' self-beliefs and nurtured their sense of self-efficacy. These include the teaching and learning methodologies such as problem-based, project-based, and work-integrated learning, the design of the programmes, the skills embedded in the foundation programme, the tutor support, the final year project, the opportunities to showcase skills, peer and tutor feedback, the authentic scenarios/projects, and the application of reflective practice in some courses. However, the measures were not implemented in a unified manner across the programmes as stated by the students. The reason could be that though some of the measures are responding to the institutional policies, for example, 'embedding problem-based learning' which are expected to be applied in a unified manner, yet some are carried out by the staff themselves, 'feedback and reflective practice' measures for example are not covered by those policies. To ensure the quality of practices across the programmes and support the students' development of their sense of self-efficacy, instead of just listing the employability-enhancing measures and practices in the employability framework, the measures could also be referenced against Bandura's (1994) four sources of self-efficacy to build the staff awareness regarding the importance of enhancing students' sense of self-efficacy.

a. Measures Fit Performance Accomplishment Source

For example, the Problem-based Learning (PBL) approach provides students the opportunities to learn by working on solving problems. The methodology is based on ill-structured problems that students are expected to resolve. Referencing PBL to Bandura's sources of self-efficacy, the approach would fit the performance accomplishment source. In a study by Beagon *et al.* (2019), the result showed that engineering students who underwent a Problem-based Learning approach during their studies perceived improvement in their employability skills such as in teamwork, communication, and learning. The students also expressed an improvement in their self-confidence and had positive perceptions regarding their abilities.

> *Dealing with problems has become a routine for me. So, solving them has been something that I do every day (I14).*

The statement reflects the students' level of comfort in dealing with problems in a frequent manner and speaks also to his ability in solving them.

Other examples of measures that fit performance accomplishment are the implantation of work-integrated learning methodology and the final year projects where students are placed in companies and have to deal with day-to-day businesses of those companies and work through authentic projects as final year requirements.

I3 had a statement reflecting ownership of the work that he kept in while accomplishing the requirement of the projects.

I think yes somehow because the final year project is my work, it depends on me, it is my actual work, so I think yeah, yeah (I3).

However, the work-integrated method needs to be managed and coordinated rigorously. Jackson (2015) pointed out that besides preparing students with the desired employability skills, work-integrated learning could be challenging in preparing students with the right level of confidence to perform effectively in their placement. This was evidenced when (I3) continued to state that his experience was stressful because of the poor management and coordination of the work placement/final-year project with the industry. If this issue was not managed properly, it might cause stress to some of the students and it might harm their self-confidence and self-efficacy (Billet, 2011). Therefore, there is a strong need for industry and academic staff members to maintain the ongoing dialogue on the management of the whole process, the knowledge skills required, to what standard, during placement, and how they can be proactively refined (Jackson, 2015).

b. Measures Fit Vicarious Experiences Source

Vicarious experiences source of self-efficacy as described in the literature review chapter is a source that includes approaches the individuals observe others while they are performing certain tasks. It builds positive expectations of the individuals and makes them believe in their abilities to perform like others. Measures and practices that fit this source of self-efficacy include the different and continuous exposure of students working with other students and experts from industry on campus and at work. Those opportunities as described by the students helped them a lot.

I feel I have learned a lot in each group, different people, different semesters, different opinions, different attitudes, and personalities (I6).

Also, the mandatory notion of working in groups due to the teaching and learning methodologies applied and to fulfil group work assessments required by most of the courses helped the students to be exposed to students who have different approaches to problem-solving and learn from them. Academic staff members also spoke about the concept of 'leading by example' could help the students to learn by observing and demonstrating behaviours and emotional reactions like those that are exhibited by their tutors (Bandura, 1997).

c. Measures Fit Verbal Persuasion Source

Regarding tutor support, peer support, and constructive feedback, these were also identified as measures that helped the students to enhance their sense of self-efficacy and impacted the development of their employability skills positively. The measures would fit the verbal persuasion source of self-efficacy. Effective impact of the measures would require the student to trust the persuading individual who should be perceived as a person with knowledge and experience that would add value and will impact the students positively.

However, tutor support was perceived differently among the interviewed Engineering students. Most of them commended the support of the senior tutors while they also expressed their sense of concern regarding the ability of some of the other tutors in providing the proper feedback, guidance, and support. As expressed by the students, this is due to their lack of industrial experience.

The quality of the tutors we get here is not always correct; some of them just have teaching backgrounds and no practical experience (I1).

As stated earlier, trusting the tutor is essential. The support and persuasion of the untrusted staff would not be perceived as valuable, and will not have a positive impact on students' sense of self-efficacy.

Moreover, peer support and feedback were highly valued by students. These could also be perceived as measures that fit the vicarious experiences source of self-efficacy. Providing the environment for continuous interaction between the students through the teaching and learning approaches and assessment methodologies enables them to support each other and give feedback constantly. Yet, peer feedback is scattered across the courses and practised whenever the academic staff member finds it relevant. The practice is not governed by any policy, nor guided nor monitored.

d. Measures Fit Psychological and Emotional Status Source

Though some support was stated to be available by the staff responses, the measures, and practices that fit this source of self-efficacy were not evident from the students' responses. As stated earlier the students mainly acknowledged the support in the form of informal guidance and mentoring by their tutors. However, the students did not provide details or clear references to any institutional structural support that was meant to attend to their psychological, mental, and emotional well-being. Though during the interviews questions were asked to explore their perception regarding the institutional support available, the students did not refer to any service.

The students also elaborated on some issues that caused them psychological uneasiness. For example, the issue of uncoordinated working groups within their courses. This as they stated may result in unfair contributions from the members of the groups while working on a project with no support or guidance from the tutors.

> *When all the work is given to one person. It will be too much. it's like putting a lot of stress on that person (I5).*

Another example is regarding issues related to the final year project that was raised by one of the students expressing how he was struggling to handle the challenges of coordinating with an external organisation by himself without the tutor's support.

> *There was a lot of trouble, one of them was that my project was cancelled, so I had to find a new project by myself (I3).*

Day-to-day issues such as these could exert psychological, mental, and emotional pressures on the students, and can harm their learning experience at the institution if they were not dealt with appropriately. As an area of recommendation, the staff members suggested adjusting the policies and regulations to incorporate principles that help in nurturing students' experience and induce a sense of self-confidence and efficacy among them.

6.5.3 Sources of Self-efficacy and Co-curricular Support

According to the data from the first stage, only those who utilised the services and participated in the co-curricular activities perceived a moderate impact of those measure on the development of their employability skills. Interestingly, more details were gathered through the second stage

of the study regarding those who participated in the co-curricular activities and how those opportunities helped in shaping their sense of self-efficacy and self-confidence. Among business and engineering students, most business students' responses in this regard acknowledged the influence of co-curricular measures and activities in developing their employability skills. They have emphasised the importance of the activities in developing their sense of self-efficacy regarding communication, leadership, working in groups, and learning skills. The findings of the study are congruent with the findings of similar studies that address students' perceptions regarding the impact of the co-curricular measures on their employability skills (Lau *et al*., 2014; Jackson & Bridgstock, 2020; Jackson & Tomlinson, 2021).

According to Bahrain Polytechnic's definition of the term, co-curricular services and activities are referred to the institutional support and activities that are non-curricular yet complementary to the curricular learning opportunities. The highlighted services and activities as per the findings include competitions such as trade-quest, involvement in student council and clubs, academic advising services, career advising services, sports activities, enrolling in external employability training programs, and participating in external events only. The identified services and activities by the students are less than what the institution offers. Those measures will be evaluated according to Bandura's (1994) sources of self-efficacy to ensure the quality of practices across the measures and to support the students' development of their sense of self-efficacy.

a. Measures Fit Performance Accomplishment Source

Measures and activities that fit the performance accomplishment source of self-efficacy include students' participation in and winning competitions. For example, competitions such as trade

quests, game jams, hackathons, debates, negotiations, and world skills competitions. Their involvement in internal and external sports tournaments and winning those tournaments could also fit this source of self-efficacy. Moreover, their involvement in accomplishing committees' objectives, for example coordinating and managing events carried out by the student council and Bahrain Polytechnic clubs are aligned with this source of self-efficacy. Not all examples of the co-curricular activities stated above were mentioned during the students or staff interviews, some of the stated activities above were added given their nature and as being offered by the institution to provide a clearer description to the reader. Those activities provide the students the opportunities to accomplish certain goals which also provides them proof of their abilities in performing the tasks and mastering the skills.

> *The students have to do all the competition requirements by themselves [...] The trade quest developed my presentation skills (I5).*

Accomplishments could be related to tasks or skills required by their roles such as being a president, a vice president, or even a member of student council or clubs.

> *The experience I had in the club helped me. It changed me a lot with the problems we f aced (I7).*

b. Measures Fit Vicarious Experiences Source

Concerning vicarious experiences as a source of self-efficacy, as stated by the students, their participation in the co-curricular activities allowed them to observe other individuals being able to execute skills required during the activity. For example, in sports activities such as playing football, those who participated in this activity were able to observe the coach of the football

team coaching them as well as observing their teammates being able to demonstrate skills such as communication and leadership skills. Another example would be those who were members of the student council, their participation provided them the opportunity to observe each other and gain from each other the skills that they were weak at. Moreover, participating in external events and activities helped the students to learn from the experiences of individuals from other organisations, such as those who were organising and running the events.

> *Participating in extracurricular activities allowed me to think outside the box […] I was able to communicate with other people built self-confidence after volunteering you do change (I8).*

c. Measures Fit Verbal Persuasion Source

Academic and career advising fit verbal persuasion sources of self-efficacy. Another service that would fit this source and provided by the institution is the PASS leaders program. It is a service that was only mentioned by the director of the student services directorate and was not acknowledged by the students during the interviews. It could be that the students who were interviewed did not utilise the service. This service is referring to Peer Assisted Student Support by another student and fits the verbal persuasion source of self-efficacy. The PASS leader program could also fit the vicarious experiences source of self-efficacy because the students who are categorised as 'at risk students' receive help and support from a peer student who is recognized to be good in a specific subject or skill that he/she is providing. An example would include communication skills support like helping with writing and presentation assignments.

Concerning other services that would fit this source of self-efficacy are academic advising and career advising. The survey results revealed that the students' utilisation of academic advising (47.6%) and career advising (41.7%) was below average and the perception of the students who agree and strongly agree with the impact of those services on their employability was low.

However, during the interviews, the students had conflicting opinions regarding the mentioned services provided by the institution. Engineering students showed negative perceptions towards employability skills enhancement via academic advising services. On the contrary, the Business students had positive perceptions regarding the service. On the other hand, career advising services were not utilised by all students, still, those who utilised the services and intended to utilise them in the future perceived the positive impact of the career advising services on their self-efficacy and employability skills.

> *When I first went to the career centre to do my CV, I felt confident that I can send my CV to any employer (I5).*

In a study by Scott *et al.* (2019), 108 final-year undergraduate students reported through a comprehensive questionnaire on a module that includes career-enhancing activities such as those provided as part of the career advising sessions by Bahrain Polytechnic Career and Employment Centre. The questionnaire captured the students' perceptions regarding the usefulness of CV writing, sitting for a job interview, and skills for future workplace sessions; it also captured their confidence levels regarding the developed skills. The result showed after the completion of the module and its requirements, the students had a significant increase in their confidence across the employability skills. The findings of this study address the importance of

the services provided by the Career and Employment Centre and the significance of preparing the students through structural career-driven programmes as indicated by Pool and Swell (2007) employability framework.

d. Measures Fit Psychological and Emotional Status Source

The measures and practices of the psychological and emotional status source were again not thoroughly revealed through student and staff interviews. However, during the staff interviews, some of them stated that they were providing the needed support to enhance student academic performance and the development of their employability skills. The manager of student affairs (I14) had a few things to share about this.

> *Disability car parking for students with disabilities who need car parks near the buildings provided. We also offer academic and mentoring advising services where the students can meet one-to-one with their mentors anytime and get advice, maybe talk about things that worry them or things that might affect their learning (I14).*

Those services were not acknowledged during the students' interviews. It could be that the students who were interviewed did not need the services mentioned by the manager of student affairs.

Moreover, with the lack of staff who are expected to occupy key roles at the institution, such as a counsellor, learning support specialist, and a nurse, it is challenging to maintain the mental, psychological, and emotional well-being of the students as stated by the director of the student services directorate during her interview.

6.5.4 An Institutional Employability Framework Recognizes Self-efficacy

Bahrain Polytechnic has an Employability framework (Appendix 2) that focuses on the curricular and co-curricular measures meant to enhance the students' learning opportunities to develop their employability skills. Instead of addressing students' employability through simply implementing direct measures and acknowledging external factors only, this study contributes to acknowledging the conceptual basis of how to operationalize the process of developing students' employability skills through enhancing their sense of self-efficacy. During the development of the existing framework, the developers considered embedding measures and practices based on their impact on learning and developing students' employability skills only. Back then the process of developing students' capabilities was thought to be a straightforward process "Rather, it is a generative capability in which cognitive, social, motivational, and behavioural skills, must be organised and effectively orchestrated" (Bandura, 1993, p. 118). The employers' feedback regarding Bahrain Polytechnic recruited graduates evidenced that they are exhibiting the skills required which speaks to the measures of the framework yet not all of the skills of the graduates were highly appreciated, nor did all of the graduates manage to attain all of the skills. By comprehensively expanding the focus of the framework, the purpose could be met in a more effective manner considering the elements that are genuine to the development of the skills. That is by not only considering the implementation of the curricular and co-curricular measures as employability learning opportunities but also by acknowledging the sources that each measure should fit in to aid students to enhance their sense of self-efficacy. This will eventually affect the students' sense of awareness, and self-confidence and will impact the development of their employability skills.

In the previous section, the measures were classified according to the sources of self-efficacy; however, this is a simple exercise that categorises the measures without an expected impact. It states the type of the measure, but it will not have effects if the approach was not acknowledged at an institutional level. Recognition of the classified measures could be in a more structural approach such as embedding it in the employability framework. Bowe *et al.* (1992) and Phoenix (2003) argued that policy should not be considered a linear process; instead, policy should be perceived as a constantly changing process. Currently, the Bahrain Polytechnic Employability Framework is a one-dimensional approach where it recognizes the learning opportunities in the form of a list of measures that are expected to be implemented to develop students' employability skills. The framework sits in the Bahrain Polytechnic Teaching and Learning Policy that focuses on all aspects related to enhancing students' learning experience in the institution.

Acknowledging the sources of self-efficacy through an institutional framework entails the development of another dimension.

The Employability Framework dimensions:

1. Learning opportunities categorised as curricular and co-curricular measures.
2. Measures that are categorised according to the sources of self-efficacy, performance accomplishment, vicarious experiences, verbal persuasion, and psychological and emotional status.

The second dimension will acknowledge and categorise the existing measures and the newly identified learning measures according to the sources of self-efficacy. This, as mentioned earlier, will always allow, and encourage the academic staff members to explore new measures and to

adopt measures to sources of self-efficacy with less emphasis. Some sources incorporate measures more than others. Measures and practices that fit performance accomplishment and vicarious experiences are strongly embedded at the institutional level and perceived positively by the students and the staff members, while verbal persuasion and psychological and emotional status sources of self-efficacy were lacking measures and perceived differently among the participants of the study.

Many progressive new measures were introduced recently as a result of the Coronavirus COVID-19 pandemic impact and were not included in the framework. The new measures and practices were introduced to incorporate the eLearning methodology that was forced to be implemented during the pandemic to manage learning continuity during working from home and the lockdown periods. The introduced measures were the synchronous-asynchronous methods and the flipped learning approach. As stated, those methodologies were expected to maintain students' learning experiences during the interruption of the teaching and learning processes. They were cautiously chosen to introduce student-staff and student-student interactions, moreover, they were also evaluated for their ability to develop students' employability skills. For example, as experimented in Ontario, Canada the flipped learning approach has shown its ability to improve students' employability skills (Ravenscroft & Luhanga, 2014). In Canada, it was mandatory by the higher education regulatory body to integrate employability skills in undergraduate education regardless of the discipline. In disciplines like liberal arts and science, the staff was finding it hard to embed employability skills. The challenge was how can students' skills be developed in disciplines that have fewer practical applications while the student enrolment numbers were high. In a case study, Ravenscroft and Luhanga (2014) examined the ability of flipped learning

methods in providing students with more opportunities to develop their employability skills in humanities and social science courses. By redesigning the content of the courses from a lecture format to incorporate flipped learning approach students' engagement was enhanced through active learning by replacing the lecture time with group work, collaborative learning, and knowledge application. Flipped learning as well as the asynchronous methods of learning provides students the space for independence, where the students are expected to understand the objectives and work towards accomplishing them in a highly independent way at Bahrain Polytechnic. These methods are not formally adopted by the framework as curricular learning opportunities. Flipped learning along with the asynchronous methods could be classified as measures that fit the performance accomplishment source according to the sources of self-efficacy.

Another example of recently adopted measures at the Polytechnic are the enhanced student-centred methodologies. These are Team-based Learning (Dolmans *et al.,* 2015; Burgess *et al.,* 2018), Process-oriented Guided Inquiry Learning (Moog & Spence, 2008), and Jigsaw Learning Strategy (Amador & Mederer, 2013; Maskhur Dwi *et al.,* 2019). The methodologies were introduced as per the recommendation of the 5-years internal Problem-Based Learning Review project (2016-2020). The review aimed to identify the courses that implement PBL methodology, identify other methodologies applied in classes, and the challenges Bahrain Polytechnic was encountering to implement PBL methodology. The result of the review has revealed that Problem-, Project-based Learning and Project-based Learning are the predominant methodologies at Bahrain Polytechnic even after the challenge enacted by the government to accept larger cohorts of students enrolling in all the offered programmes by the Polytechnic. The

implementation of the new student-centred methodologies was found to be effective with larger classes and can be implemented as they are or used in conjunction with other Student-Centred Learning (SCL) methodologies. (Pastirik, 2006; Klegeris & Hurren, 2011; Bledsoe, 2011; Esteban & Arahal, 2015). As per the direction of the Bahrain Polytechnic Academic Board, the newly introduced teaching and learning methodologies were piloted at first by volunteer academic staff members who agreed to implement those in their courses and explore the effectiveness of the methodologies to support the main pedagogies. Then the methodologies were formally acknowledged by the institutional Teaching and Learning Policy. However, the Bahrain Polytechnic Employability Framework needs to include the newly introduced teaching and learning methodologies. In terms of source of self-efficacy, those methodologies may be categorised into more than one source which are performance accomplishment and vicarious experiences sources.

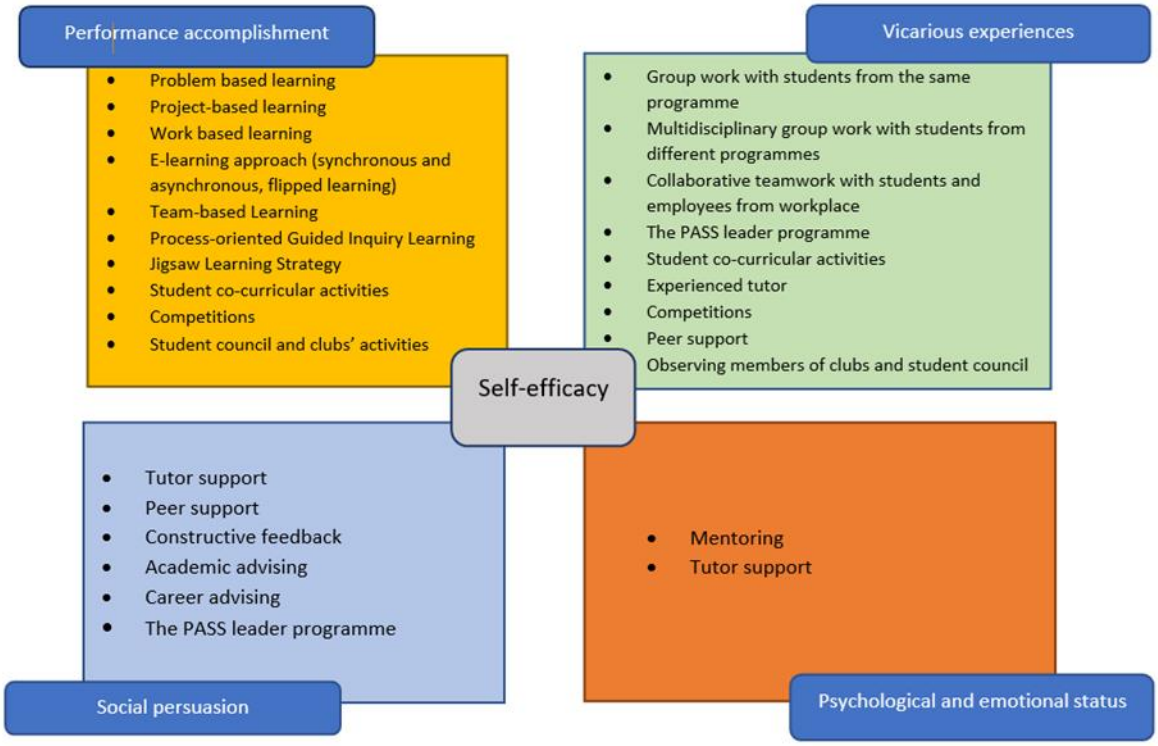


Figure (4) Proposed second diminution of Bahrain Polytechnic Employability Framework

Some might argue, why would the institution need to have multiple measures in every source of self-efficacy. The contribution of the study extends to acknowledge the importance and the impact of each source. This means that each source should have enough measures to attend the development of students' self-efficacy. Though Bandura (1994) emphasised the impact of the first two sources which are Performance Accomplishment and Vicarious Experience more than the other two which are Verbal Persuasion and Psychological and Emotional Status, in terms of measures it does not mean that the focus should be less on the other two sources. According to the findings, many issues were raised by the students during the interviews speaking about the lack of psychological and emotional supporting measures. For example, a student who came from a single-gender education background found it difficult to interact with the other gender in the

institution in the first year without guidance and preparation. The same student was commending measures related to Performance Accomplishments such as the implementation of PBL and WIL as teaching and learning methodologies however there was a psychological aspect that was affecting her skills. Another example would be the mismatched contribution of group members to projects. This, as expressed by some of the students, could cause frustrations and stress since it affects the overall outcome.

> *Anyway, in these practical projects, especially in group settings, you could see that you are a bit struggling as compared to others and like others will do the task faster than you and they will do it in the right way (I1).*

A further serious issue would be managing work placement allocation and formalities by the students themselves with barely minimum support from the tutor as stated by one of the students. In a normal scenario, the students could perform the expected skills with a positive sense of self-efficacy through the Performance Accomplishment measures. However, if this student was in a situation where the company allocation for the project has delayed the uncertainty of accomplishing the project could impose a negative impact on students' psychological well-being.

The results from the student's interviews revealed that the measures affect their sense of self-efficacy differently, regardless of what source of self-efficacy sources the measure fits in. This means that the influence of the sources differs from one person to another.

6.6 National Policy and Practice Contribution

As presented in the second chapter, Bahrain's National Higher Education Strategy (2014) by HEC acknowledged 'Employability' as a core concept to develop the workforce for Bahrain. Moreover, the strategy defined employability and listed the skills that higher education graduates expected to develop during their studies in public and private higher education institutions in Bahrain. The Education and Training Quality Authority (BQA) also addresses employability by verifying the provision of employability skills at the course and programme levels before placing the qualifications on the National Qualification Framework. However, those initiatives that were meant to operationalize the Bahrain Economic Vision 2030 directions which emphasised upskilling the workforce through education reform initiatives, did not exhibit any impact related to employability. Until now, no reports were produced regarding the impact of the HEC strategy nor the BQA publications related to the development of the undergraduate's employability skills. The regulatory bodies failed to state an employability policy or a framework to meet the national direction. The approaches taken by them about employability are very general without specific guidelines to follow by the higher education institutions. There was not even a mention of self-related theories as an integral concept while addressing the development of the undergraduates' employability in their publications.

As stated in earlier chapters, although the higher education institutions in Bahrain were asked by the HEC to post a national employability forum and a workshop to submit employability implementation plans, no evaluation and monitoring processes were put in place to assess the

implementation of those plans by the HEC. Evaluation and monitoring processes are important to ensure the compliance of higher education institutions with their plans.

The contribution of the study is directly relevant to Bahrain Polytechnic's employability agenda. Furthermore, it might also be beneficial for the national decision and policymakers to direct higher education institutions to look into frameworks, measures, and practices that help the development of undergraduate students' employability at the national level. The development of a policy and a framework that reflects the national employability vision and strategy will help practitioners in higher education institutions to embed employability-related measures and practices. Those might address the teaching and learning methodologies that fit the purpose such as the implementation of student-centred approaches including work-integrated learning, project-based, and problem-based learning. Measures that address the effective implementation of co-curricular opportunities such as the establishment of student councils, and clubs, and promoting students' activities and competitions. The decision-makers can also look into legitimising the provision of proper counselling and mentoring measures.

6.7 Strengths and Limitations

6.7.1 Strengths

A key strength of this study is applying the mixed-methods methodology with triangulation of the results exploring self-efficacy towards employability skills from the perspective of higher education students and staff members. Furthermore, most of the studies that were conducted elsewhere regarding the subject, used either quantitative or qualitative designs, while few were found to be applying the mixed-methods approach. As mentioned in the Contribution to

Methodology section most of the papers applied the quantitative approach targeting aspects related to employability, self-efficacy, or self-efficacy in relation to employability. Only a few found that applied the mixed-methods approach (Hinchliffe & Jolly, 2011; Jones, 2016); however, the scope of those papers does not completely align with the scope of this study. The mixed-methods approach implies the use of different methods at each stage which facilitates the exploration of data that was not existing and can't be explained with a single method. The methodology also helped in understanding the dynamics of the existing measures that were meant to develop students' employability skills and the effect of those measures on students' sense of self-efficacy. The findings of the questionnaire provided a good initial understanding and familiarity with data that was not existing regarding students' perception of their sense of self-efficacy towards their employability skills and their understanding regarding the measures implanted institutionally. The comprehensiveness and the new data gathered from the questionnaire were useful as initial information regarding the scope of the study. Thus, relatively the institution is known to prepare graduates with the skills required by the market, but the use of mixed-methods methodology helped in understanding the areas where the institution needs to focus on. Another strength is that the data was gathered from both perspectives of students and staff members which provided access to the similarity and differences in views regarding the subject. Moreover, this study contributed to knowledge by identifying four main elements that were found to be core to the development of a sense of self-efficacy and required to be considered while applying employability models in the education sector. Regarding my position as a researcher and reflecting on that within this study, some might argue my proximity to the topic, participants, and the influence of my position at the institution and consider it as a

limitation. However, by declaring, defusing, and managing those from the start of the study, as a strength, my position towards the topic and the setup helped to understand and contextualise the findings from the perspective of the participants. Finally, on a national level though the study was conducted in Bahrain Polytechnic due to its novel mission of preparing graduates for the market, the findings might help other higher education institutions in Bahrain. The results of the study could provide some understanding regarding the impact of the curricular and co-curricular measures on the development of the students' employability where those institutions could adopt and build on their practices.

6.7.2 Limitations

Regarding the limitations of the study, the targeted population was the final year students only while fresh graduates and graduates who just joined the workforce were not included. If time was available those could have been included in the study and enriched the findings. Furthermore, despite all the means that have been applied to recruit students to fill out the survey only 40% of final-year undergraduate students participated. This also could have been managed better if there was more time available yet the window between obtaining the final approval for data gathering and the deadline for filling out the survey was tight. Moreover, the approach used to collect the qualitative data from participants as they showed interest and become available had a potential limitation which is bias in participant selection. Using a first come, first served approach to participant recruitment might impose risk of selection bias. This is because the approach depends solely on the availability and willingness of individuals to come forward and participate. Participants who volunteered early on may differ in characteristics, experiences, or perspectives from those who did not, which might potentially introduce a bias into the sample (Creswell & Creswell, 2017;

Denzin & Lincoln, 2018). However, all of those who participated in the interviews perceived a level of self-efficacy towards their employability skills which means that they were meeting the purpose of the study yet it does not mean that voices of students with different level of self-efficacy were captured.

The final limitation holds expected potential bias where most of those who agreed to participate in the interviews were gender-specific from each of the two programmes (Engineering males, Business Females) and scored average sense of self-efficacy towards employability skills and above in the questionnaire that they filled. Though sample representativeness while collecting qualitative data is not a key point yet the interviews lacked the perceptions of both genders for the two programmes and missed the opinion of those who had a low sense of self-efficacy towards the employability skills. If Qualitative Longitudinal methodology was applied, while participants recruitment time was extended, and purposeful sampling techniques, such as maximum variation, snowball sampling, or stratified sampling were implemented, the sample could have represented the diversity of the population and more students could have been encouraged to participate in the interviews including the voices of those with low sense of self-efficacy towards their employability skills. However, as mentioned in chapter three, this was not feasible. Yet it will be considered in future studies.

6.7.3 Reflection

In the beginning, choosing the scope of the study was based on my role as the Director of the Academic Development Directorate at Bahrain Polytechnic. The Directorate is responsible for ensuring the provision of the best measures and practices in place to develop students' employability. Therefore, as I enrolled in the doctorate programme, I thought of taking this opportunity to learn and investigate more about the concept and explore everything related to

it to improve the employability agenda at an institutional level. However, while I was conducting the study and reflecting continuously, I gradually started to realise that engaging in a study that focuses on employability and self-efficacy is more than just a duty to fulfil as a director. It is about my beliefs and values and the way I constructed connections based on my experiences which are not limited to management and higher education fields but also in health as I was a nurse for fifteen years and a nurse tutor for seven years. The diverse professional background that I attained over the last thirty years provided me with baseline knowledge of these research concepts. I also borrowed the self-efficacy concept from the health field to apply it in higher education. I am not claiming that this is a new attempt at the application, however, as I explained earlier in this chapter that researchers and theorists incorporated self-efficacy in employability models as a key factor yet with less procedural explanation and this is what I bring to knowledge. From where I came, in health-related professions, the holistic well-being of clients is what health is all about. Health is defined by WHO (1948) as "A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". My reference here is to the deep reflection that I was continuously engaged in by linking concepts and principles that were learned and applied in health to education. The individual's holistic well-being is what encouraged me to explore more about self-efficacy and how this factor would help in developing an individual's employability. Then again mental, psychological, and emotional well-being play a crucial role in productivity.

Another aspect that took a long time for me to deeply think about and reflect on is how hard for novice researcher to be lost with only a few questions that might or might not be relevant. This experience taught me to enhance my metacognitive strategies and focus on one step at a time.

It might require me to repeat some steps again and again but eventually, everything will fall into place. Regarding the research steps, when I started, I was extremely filled with doubts about where to start and what to focus on. By keeping a reflection journal through (Instagram) and my social media account as a repository, without fail, I voiced my feelings, my thoughts, and the intriguing issues related to the topic continuously. This approach helped me to read more, to interact with people who either wanted to know about the topic, voiced thoughts, and feelings or shared their experiences. Moreover, it shaped my identity as an employability and self-efficacy researcher to the people I work with and the public.

The literature review chapter was even more complicated. My readings started to become more intense regarding the topic where I had to contrast and compare concepts, models, and studies to each other. This phase confused me as everything I read was relevant, but I had to pick cautiously and choose the most relevant without being biassed. The chapter was revisited until the date of submission. It made me realise as soon as a research idea is formulated then it is a never-ending process. The methodology chapter was extremely satisfying as my scientific way of perceiving things took the lead in answering how and why. This chapter provided me with some comfort in terms of having the plan to address the topic structurally. The excitement started with the data collection stage, the surge of data and information was huge, and it was my first time dealing with a mixed-methods approach. To manage the overwhelming amount of data and maintain my self-discipline, I started to refer to the people within my social networks such as friends and colleagues who are doing or completed their master's, doctorate, or Ph.D. studies. I also approached some experts in the topic. Besides the references that I referred to which explained the analysis process, approaching those who were involved in similar processes helped

me to cluster and distil the data. Finally, the discussion chapter was the final jigsaw puzzle piece that interestingly helped in answering the research questions. This chapter not only provides the opportunity to draw inferences based on the findings but also to investigate the literature that speaks about the same conclusions. This life journey was intense and enriching on a professional level but it also enlightened me on a personal level. I would say it enhanced my self-efficacy towards critical thinking, research, learning, self-discipline, and most importantly my identity as a researcher.

6.8 Summary

In this chapter, all the questions of the study that were answered using the mixed-methods approach were synthesised and discussed. Furthermore, the chapter explains the study's contributions to different aspects based on the findings.

The findings support the provision and implementation of measures, practices, and services in the institution that enhances students' sense of self-efficacy toward their employability skills. It also supports that the institution prepares graduates for the labour market.

The knowledge contribution of the study extends to cater to aspects such as the importance of providing an operational approach to the abstract understandings of employability frameworks, the evidence of deep learning and malleable self through continuous reflection on self-related concepts, and the importance of understanding the self-efficacy-enhancing elements.

Regarding the geographical and methodological contributions, the scope and the context of the study is unique to the Kingdom of Bahrain. Moreover, the use of the research design and

methodology which is the explanatory sequential design also unique to exploring employability and self-efficacy in general.

Regarding the contributions to policy and practice, the study provided contributions at institutional and national levels. The institutional policy and practice contribution as per the result of the study are appreciable since it shows that the measures in place enhance students' sense of self-efficacy though the concept itself is not addressed or intended formally to develop students' employability skills. The study also contributes to operationalizing the institutional employability framework by categorising the curricular and co-curricular measures as per Bandura's four sources of self-efficacy. Finally, the national contribution to policy and practices addresses the initiatives that were established to embed employability in the programmes offered by the higher education institutions in Bahrain. It also emphasised the importance of developing an employability-related policy and creating an evaluative process to ensure the quality of the offerings.

Chapter Seven: Conclusion and Recommendations

7.1. Conclusion

This study aimed to understand the students' and staff members' perceptions regarding the institutional employability-based measures and if those influenced the students' sense of self-efficacy. Applying the mixed-methods explanatory sequential design facilitated the attainment of the study's aim by providing extensive knowledge that cored around the undergraduate's sense of self-efficacy and their development of employability skills as well as the staff beliefs regarding students' employability and their sense of self-efficacy. The study was conducted at Bahrain Polytechnic institution which is the second public higher education institution in the Kingdom of Bahrain. The reason for choosing this institution was based on its mission which is preparing work-ready graduates with twenty-first-century skills that are desired by the market. The targeted sample for the survey was the final year students of 2019. A total of 270 final-year students were targeted, and 103 students responded (40%) to the survey. While 8 students from both Business and Engineering schools and 10 staff members were interviewed in the second stage for the qualitative data. The findings of the first stage of the study were important since the institution lacked similar data regarding students' perceptions of their sense of self-efficacy toward their employability skills. The data provided baseline quantitative information regarding the participating final year students' sense of self-efficacy of their employability skills and their satisfaction with the institutional measures, practices, and services that were meant to develop their employability skills. The students reported an average level of perceived self-efficacy of their employability skills. While the perceived self-efficacy of the professionalism skills scored the

highest among the rest of the employability skills. The learning opportunities including curricular and co-curricular learning measures found to have a different impact on students. The curricular measures were found to have a direct positive impact on the students' employability skills. While in regard to the co-curricular measures, it has been found that not all of the students were engaging with the services provided to them or participating in the co-curricular activities. However, those who do, showed a moderate level of perceived impact of the measures directly on their employability skills.

Through interviews, the study also provided in-depth qualitative data regarding student and staff perception of the measures and practices implemented to enhance students' employability and their influence on students' sense of self-efficacy. The results showed all the interviewees confirmed positively the ability of the institution in preparing the students for the market. The findings also acknowledged that the institution helped in developing students' employability skills including communication, teamwork, learning, and analysis concurring with the quantitative findings.

Concerning the learning opportunities, the interviewees perceived many curricular measures to be effective in developing the students' self-efficacy including the teaching and learning methodologies, the design of the programmes, as well as the practices implemented in the classroom such as reflective practice and the constructive feedback received from their tutors and peers. In terms of the co-curricular measures, the interviewees had different views regarding the impact of those measures in line with the quantitative data findings. However, the qualitative findings revealed that the Business students expressed strong positive views regarding the impact of the co-curricular measure on their sense of self-efficacy while Engineering students

stated that their participation was limited to a few co-curricular activities. On the other hand, only 50% of the staff members recognised the impact of co-curricular measures while some were emphasised more than others.

This study has contributed to many aspects. The most significant aspect of the contribution was knowledge. The study identified the importance of having a structural approach applied to develop students' self-efficacy. This helps to ensure the consistency of practice among staff and the attainment of the desired impact. Moreover, besides self-efficacy, knowledge contribution extended to address other significant self-related concepts such as self-awareness and self-confidence that were identified to be associated with the development of student employability skills. Furthermore, elements that influence the enhancement of students' sense of self-efficacy were also identified to be relevant to Bahrain Polytechnic students. Those are the pre-tertiary education exposure to employability, variation in setups and people, reinforcement of the skills, and past exposure to experiences that helped in developing the students' skills. Other contributions of the study were related to the geographical area and the methodological approaches applied. Those were unique to the scope and the context of the study as no study was conducted in the Kingdom of Bahrain exploring perceptions around undergraduate self-efficacy towards their employability skills nor the mixed-methods approach applied as a design. Moreover, the study contributed to 'Policy and Practice' at institutional and national levels. On the institutional level, the implemented employability measures were found to enhance students' sense of self-efficacy. The contribution also supports addressing self-efficacy through the institutional employability framework by categorising the curricular and co-curricular measures as per Bandura's four sources of self-efficacy. The national contribution to policy and

practices addresses the national employability initiatives that were established to embed employability in the offered programmes by the Bahraini higher education institutions. It also identifies the significance of developing national-level, employability-related policy and creating an evaluative process to ensure the quality of the offerings.

7.2 Recommendations

7.2.1 Institutional Recommendations

In general, the curricular and co-curricular measures identified by the study fit the four sources of self-efficacy. To an extent, the institutional ecosystem does help in promoting the development of the students' sense of self-efficacy along with other self-related concepts as per the qualitative findings which are key to the development of students' employability skills (Schunk, 1991; Dinther *et al.*, 2011; Yorke & Knight, 2004b; Pool & Swell, 2007). Yet, many measures fit a couple of self-efficacy sources while measures that could fit for example the source of psychological and emotional status are lacking (Appendix 2). To avoid sporadic and irregular practices with many loose ends while ensuring the comprehensiveness of the approach in developing students' employability skills, it is essential to consider modifying the current institutional employability structure to reflect a clear process for those who are expected to implement it. I am proposing the following employability facets to be considered by the institution: 1) policy-driven receptive framework for employability, and 2) nurturing ecosystem for employability.

a. Policy-driven Receptive Framework for Employability

A receptive employability framework would require a modification to the current framework to consider a two-dimensional approach that recognizes the four sources of self-efficacy and categorises the measures accordingly. As mentioned earlier in the discussion chapter, a two-dimensional approach framework will help to systemize the informal practices such as those that were acknowledged by the findings of the study, for example, reflective practice, peer feedback, tutor support, and coaching. As well as the newly introduced measures including flipped learning, synchronous and asynchronous learning, and the newly adopted student-centred learning methods (Appendix 2). However, a receptive employability framework will require a regular review of the curricular and co-curricular measures to be categorised according to the sources of self-efficacy. The changes to the framework will also require a comprehensive review and modification to the existing academic policies to incorporate and acknowledge the practices that will have an impact on students' sense of self-efficacy and the development of their employability skills. For example, the Assessment Policy needs to acknowledge practices such as 'reflective practice' and provide proper guidelines for academics to apply those practices. Same as the Teaching and Learning Policy which would require acknowledging newly adopted methodologies such as 'flipped learning' and providing guidelines that will aid the staff in applying those practices.

Moreover, besides the modifications to the framework and the policies, a multi-phased implementation plan is essential to accommodate the changes that will affect the institutional employability agenda.

b. Nurturing Ecosystem for Employability

By modifying the institutional employability framework and the academic policies the institution is not yet completely ready as an environment meant to holistically nurture students' employability. Other elements need to be addressed in phases to optimise the desired impact of the framework and the policies. Therefore, I am proposing a multi-phases implementation plan as follows:

Phase one is the immediate post-policy modification phase or it could be called the orientation phase. This phase is about increasing staff and students' awareness regarding the review and the modification that was done to the employability framework. Staff would also be required to understand the changes that took place to the policies. In a review of 15 empirical studies, Ingersoll and Strong (2011) found that activities such as induction, orientation, and guidance have a positive impact on academics' commitments, classroom instructional practices, and students' achievements. At the Polytechnic, the orientation sessions might help the staff to appreciate the employability project as a whole and recognize the importance of enhancing students' self-efficacy through the four sources of self-efficacy. Eventually, this will have an impact on the practices at the institution, therefore this is an essential start to prepare the mindsets of the staff members regarding the concept.

Phase two is the preparation phase. After the initial phase preparation would be a building block and an integral phase to the success of the employability framework implementation plan. Preparing the staff members with the essential skills required is vital to achieving the desired impact of the framework (York and Knight, 2004; Pleschová and Simon 2012). The senior

management staff and the academic staff members will be trained to apply the proposed plan and measures as this will help in building their capacity regarding practices that might be new to them or perceived sceptically to improve students' employability. Preparation could be addressed through different existing institutional means including induction programme, continuous training sessions, and the institutional teacher training programme. Though similar programmes are offered by other institutions such as the Advanced Higher Education in the UK however, the modified in-house programmes will address the training needs of the staff in an authentic and meaningful way. This would require time as the staff acquisition of competencies will start from this phase and would be monitored from this point onward. A dedicated team should be ready to attend staff questions and concerns. The post-preparation provision of continuous coaching and mentoring support will reassure the staff who are responsible for executing the measures and the implementation of the policies.

The third phase will address the implementation of the measures of the modified employability framework. As of now, it is expected that the staff is prepared to embed the measures and the skills gained through the preparation phase. A screening exercise will be carried out by them to identify the areas that would need to be enhanced and accommodate measures as found necessary. This might require introducing for example more of a work-integrated learning approach, embedding reflective practice, or simply increasing the teamwork activities in the course. Such changes would require approval at levels relevant to the impact of the change.

The final phase is 'Evaluation'. More accurately, this phase will overarch all phases and require it to be applied continuously. However, the launch of the modified framework and policies will start with the preparation phase and as the staff continues implementing the measures evaluation will

continue. All aspects related to the framework, measures, and policies should be evaluated based on their impact on students. For example, through students' and staff data issues might be identified related to a measure that is meant to address one of the self-efficacy sources, the measure will be addressed in a thorough investigative manner. Annual reports should be presented to the Academic Board regarding the impact of the framework from students and staff perspectives. The reports might be presented with recommendations as per their outcomes. Below is the visual representation of the multiphase of the implementation plan.

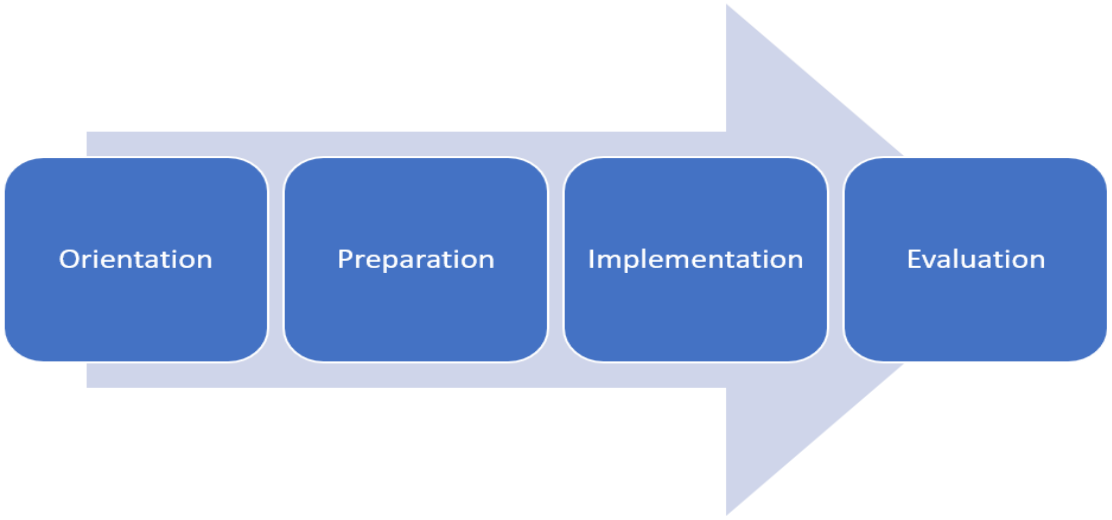


Figure (5) Multi-phased implementation plan

7.2.2 National Recommendations

At a national level, the result of this study will be presented to the Higher Education Council and the Education and Training Quality Authority with a recommendation to explore stakeholders' understanding of employability and self-efficacy among higher education students and staff. Also, to address employability in a structural approach by developing a national employability framework or dedicating a policy that focuses on pillars that nurture students' employability.

7.2.3 Recommendations for Future Studies

For future studies, as per Bahrain's Economic Vision 2030 through the Higher Education Council and the Education and Training Quality Authority, all higher education institutions, despite their missions, are expected to prepare work-ready graduates. Therefore, it is worth applying the scope of this study across all HEIs in the kingdom. This will help to explore the employability measures and the structures in those higher education institutions and will aid in modifying their strategies to develop their undergraduate students' employability skills. A national-wide study might aid in developing a national-level employability framework for all higher education institutions if required. I am also intending to continue exploring the graduates' perception and understand the long-term impact of the employability framework on their career progress in future studies.

References

Almendarez, L. (2011). *Human Capital Theory: Implications for Educational Development.* Belize Country Conference. The University of the West

Al-Shaiba, A. (2014). Key Perspectives on Preparing UAE Nationals for Employment (Chapter 3). *The Future of Education in the UAE Innovation and Knowledge Production.* The Emirates Center for Strategic Studies and Research. Available from https://www.cambridge.org/core/books/the-future-of-education-in-the-uae/560F8C268BF80ED4031C28BF15F63552 [Accessed 10 January 2019].

Amador, J. A., and Mederer, H. (2013). Migrating Successful Student Engagement Strategies Online: Opportunities and Challenges Using Jigsaw Groups and Problem-Based Learning. *Journal of Online Learning and Teaching.* 9, pp. 89-105.

American Public Agenda. Available from https://www.publicagenda.org/wpcontent/uploads/2019/11/PublicSpendingByThePeople_PublicAgenda_2016.pdf [Accessed 10 February 2019].

Anas, I., and Hamzah, S. R. (2017). Conceptual study on the enhancement of employability among undergraduates in work-based learning settings. *Special issue - 4th International Conference on Educational Research and Practice. International Journal of Academic Research in Business and Social Sciences.* 7.

Arthur, C. (2004). *What are university for? Contemporary review*. Art, Design and Architecture Collection. pp. 146-149.

Bahrain Demographic Profile. Available from https://www.indexmundi.com/bahrain/demographics_profile.html [Accessed 2 February 2019].

Bahrain Economic Vision 2030. (2008). eGovernment. Available from www.bahrain.bh/ [Accessed 2 December 2018].

Bahrain Polytechnic Programme Definition. Available from www.bahrainpolytchnic.bh [Accessed 2 December 2022].

Bahrain Polytechnic Vision. Available from www.bahrainpolytchnic.bh [Accessed 2 December 2022].

Ballantine, J., and McCourt Larres, P. (2007). Cooperative Learning: a pedagogy to improve students' generic skills. *Education and Training.* 49 (2), pp. 126-137.

Bandura, A. (1977). Self-efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Review.* 84, pp. 191-215.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational psychologist.* 28 (2), pp. 117-148.

Bandura, A. (1994). *Self-efficacy. In V.S. Ramachaudran (Ed.), Encyclopedia of human behavior*. New York: Academic Press. 4, pp. 71-81.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York. NY: W.H. Freeman and Co.

Bandura, A. (2004). Health promotion by social cognitive means. *Health Education and Behavior.* 31 (2), pp. 143-164.

Barrie, S. C. (2004). A research-based approach to generic graduate attributes policy. *Higher Education Research and Development.* 23 (3), pp. 261-275.

Barrow, R., *et al.* (2010). Embedding Employability into a Classics Curriculum: The Classical Civilisation Bachelor of Arts programme at Roehampton University. *Arts and Humanities in Higher Education*. 9 (3), pp. 339-352.

Beagon, U., Nialla, D., and Ní Fhloinn, E. (2019). Problem-based learning: student perceptions of its value in developing professional skills for engineering practice. *European Journal of Engineering Education.* 44 (6), pp. 850–865.

Beck, E., and Manuel, K. (2008). *Practical research methods for librarians and information professionals*. New York, NY: Neal-Schuman.

Bennett, N., Dunne, E. and Carre ´, C. (1999). Patterns of core and generic skill provision in higher education. *Higher Education.* 37, pp. 71-93.

Bennett, D., Richardson, S. and MacKinnon, P. (2016). Enacting strategies for graduate employability: How universities can best support students to develop generic skills. *Sydney: Australian Government Office for Learning and Teaching.*

Beveridge, W. H. (1909). *Unemployment: A problem of industry*. London. Longmans. Green and Co.

Bezuidenhout, M. (2011). *The development and evaluation of a measure of graduate employability in the context of the new world of work.* University of Pretoria, Pretoria.

Biggs, J., and Tang, C. (2011). *Teaching for quality learning at university: what the student does.* Maidenhead: McGraw-Hill.

Billet, S. (2011). *Curriculum and pedagogical bases for effectively integrating practice-based experiences.* Strawberry Hills, NSW. Australian Learning and Teaching Council.

Birmingham City University. Available from www.bcu.ac.uk [Accessed 2 January 2020].

Black, I., Hall, M., and Darmawan, G. (2007). Undergraduate nurse variables that predict academic achievement and clinical competence in nursing. *International Education Journal.* 8 (2), pp. 222–236.

Blackmore, P., Bulaitis, Z., Jackman, A., and Tan, E. (2016). Employability in Higher Education: A review of practice and strategies around the world. *Pearson Efficacy and Research*. Pearson.

Bledsoe, K., E. (2011). Managing Problem-Based Learning in Large Lecture Sections. *Bioscience Education*. 18 (1), pp. 1-11.

Blunkett , D. (2000). Influence or irrelevance: Can social science improve government? (Speech to the Economic and Social research Council) *In Research Intelligence*. pp. 12-21.

Bong, M., and Shkaalvik, E. (2003). Academic self-concept and self-efficacy: How different are they really? *Educational Psychology Review*. 15 (1), pp. 1-40.

Boud, D., Cohen, R., and Sampson, J. (Eds.). (2001). *Peer Learning in Higher Education.* Kogan Page, London.

Bouffard, T., *et al.* (2005). Influence of achievement goals and self-efficacy on students' self-regulation and performance. *International journal of psychology*. 40 (6), pp.373-384.

Bowden, J., *et al.* (2000). *Generic Capabilities of ATN University Graduates.* http://www.clt.uts.edu.au/ATN.grad.cap.project.index.html [Accessed27December 2018].

Bowe, R., Ball, J., and Gold, A. (1992). *Reforming education and changing schools: Case studies in policy sociology.* London: Routledge.

Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in*

Psychology. 3 (2), pp. 77-101.

Braun, V., and Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport. Exercise and Health.* 11 (4), pp. 589-597.

Braun, V., and Clarke, V. (2021). Can I use TA? Should I use TA? Should I not use TA? Comparing reflexive thematic analysis and other pattern-based qualitative analytic approaches. *Counselling and psychotherapy research*. 21 (1), pp. 37-47.

Brennan, J. (2008). Higher Education and Social Change. *Higher Education: The International Journal of Higher Education and Educational Planning.* 56 (3), pp. 381-393.

Brent, G., Sanger, G. and John, R. (2017). A framework to embed employability initiatives in undergraduate science, technology, engineering and maths programs. *Research and development in higher education: Curriculum transformation.* 40, pp. 38-49.

Bridgstock, R. (2009). The graduate attributes we've overlooked: enhancing graduate employability through career management skills. *Higher Education Research and Development.* 28 (1), pp. 31-44.

British Council Bahrain, (2015). *Employability Skills in Higher Education Curriculum*. Available from https://www.britishcouncil.bh/en/about/press/employability-skills-higher-education-curriculum [Accessed 28 August 2021].

Bryman, A. (2006). Integrating quantitative and qualitative research: how is it done? *Qualitative Research.* (6), pp. 97–113.

Burgess, A., Roberts, C. and Ayton, T. (2018). Implementation of modified team-based learning within a problem-based learning medical curriculum: a focus group study. *BMC Medical Education.* 18 (74), pp. 1-7.

Cambridge Dictionary. Employability Available from https://dictionary.cambridge.org/dictionary/english/employability [Accessed 24 December 2020].

Canadian Labour Force Development Board. (1994). *Putting the pieces together: towards a coherent transition system for Canada's labour force.* Ottawa. Canadian Labour Force Development Board.

Carmichael, C., and Taylor, J. (2005). Analysis of student beliefs in a tertiary preparatory mathematics course. *International Journal of Mathematical Education in Science and Technology.* 36 (7), pp. 713-719.

Carolan, M., Smith, A., and Davies, C. (2016). Managing and Analysing Qualitative Data: A Review of Software Tools. *Social Research Update*. 53 (1), pp. 1-4.

Carr, W. (2000). Partnership in Educational Research. *Oxford Review of Education*. Education Database. pp. 437

Caruana, V. (2016). Researching the transnational higher education policy landscape: Exploring network power and dissensus in a globalizing system. *London Review of Education*. 14 (1), pp. 56-69.

Cavanagh, J., Burston, M., Southcombe, A. and Bartram, T. (2015). Contributing to a graduate-centred understanding of work readiness: An exploratory study of Australian undergraduate students' perceptions of their employability. *The International Journal of Management Education.* 18, pp. 278-288.

Cavanagh, T., Leeds, C., and Peters J. M. (2019). Increasing Oral Communication Self-Efficacy Improves Oral Communication and General Academic Performance. *Business and Professional Communication Quarterly*. 82 (4), pp. 440-457.

CBI/NUS (2011). *Working towards your future: making the most of your time in higher education.* Available from https://www.nus.org.uk/Global/CBI_NUS_Employability%20report_May%202011.pdf [Accessed 24 December 2018].

Central Intelligence Agency. *The World Fact Book. Literacy rate in Kingdom of Bahrain 2018.* Available from https://www.cia.gov/library/publications/the-world-factbook/fields/2103.html [Accessed 4 December 2018].

Cheng, M. and Ghulam, R. (2007). Knowledge gap and earnings differential in the knowledge-based economy. *Applied Economics Letters*. (14), pp. 219-221.

Choi, N. (2005). Self-efficacy and self-concept as predictors of college students' academic performance. *Psychology in the Schools*. 42 (2), pp. 197-205.

Christopher, BA., *et al.* (2016). Better Care Teams: A Stepwise Skill Reinforcement Model. *The Journal of Continuing Education in Nursing* · 47 (6), pp. 283-288.

Ciarocco, N., and Strohmetz, D. (2018). The Employable Skills Self-Efficacy Survey: An Assessment of Skill Confidence for Psychology Undergraduates. *Scholarship of Teaching and Learning in Psychology*. 4 (1), pp. 1-15.

Coetzee, M. and Schreuder, D. (2008). A multi-cultural investigation of students' career anchors at a South African higher education institution. *South African Journal of Labour Relations.* 32 (2), pp. 45-65.

Cohen, L., Manion, L., and Morrison, K. (2004). *Research Methods in Education.* 5th ed. Taylor and Francis Group. London. England.

Cole, D., and Tibby, M. (2013). *A framework for higher education institutions: Defining and*

developing your approach to employability. The Higher Education Academy. United Kingdom.

Collini, S. (2012). *What are universities for?* London. New York: Penguin

Confederation of British Industry. (1999). *Making Employability Work: An Agenda for Action.* London: CBI.

Copps, J. and Plimmer, D. (2013). *Inspiring impact: The journey to employment - a guide to understanding and measuring what matters for young people*. NPC.

Corbin, J. and Strauss, A. (2008). *Qualitative research. Techniques and procedures for developing grounded theory*. 3.

Cotton, K. (1993). *Developing employability skills.* Northwest Regional Educational Laboratory.

Crawford, K. (1996). Vygotskian approaches to human development in the information era. *Educational Studies in Mathematics.* (31), pp. 43-62.

Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches (4th ed.).* Thousand Oaks, CA: Sage.

Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approaches. SAGE Publications.

Davidson, C., and Smith, P. (2008). *Higher Education in the Gulf States: Shaping economics, politics and culture.* The London Middle East Institute.

Department of Higher and Future Education, Training and Employment (DHFETE) (2002). *Report of the Taskforce on Employability and Long-term Unemployment.* Belfast. North Ireland.Denzin, N. K., and Lincoln, Y. S. (2018). The SAGE handbook of qualitative research. SAGE Publications.

Dinther, M. V., Dochy, F. and Segers, M. (2011) Factors Affecting Students' Self-efficacy in Higher Education. *Educational Research Review.* 6 (2), pp. 95-108.

Dolmans, D., Michaelsen, L., Merriënboer, J. and Vleuten, C. (2015). Should we choose between problem-based learning and team-based learning? No, combine the best of both worlds!. *Medical Teacher*. 37 (4), pp. 354-359.

Dweck, C. (2015). Growth," *British Journal of Educational Psychology*. Wiley.

Dweck, C. (2000). *Self-theories: Their role in motivation, personality and development*. Philadelphia: Psychology Press. Taylor and Francis Group.

Education and Training Quality Authority. Available from http://www.bqa.gov.bh/En/AboutQaaet/Pages/default.aspx [Accessed 9 December 2018].

Education and Training Authority. (2020). *National Qualifications Framework Handbook for Institutions*. Available from http://www.bqa.gov.bh/En/Publications/AnnualReports/BQA%20Annual%20Report%20(English).pdf [Accessed 23 December 2020].

Esteban, S., and Arahal, M. (2015). Project Based Learning Methodologies Applied to Large Groups of Students: Airplane Design in a Concurrent Engineering Context. *IFAC-PapersOnLine*. 48 (29), pp. 194-199.

Ferrari, R. (2015). Writing narrative style literature review. *Medical Writing*. 24 (4), pp. 230-235.

Frankham, J. (2017). Employability and higher education: the follies of the 'Productivity Challenge' in the Teaching Excellence Framework. *Journal of Education Policy*. 32 (5), pp. 628-641.

Francis, J., Johnston, M., Robertson, C., Glidewell, L., Entwistle, V., Eccles, M. P., and Grimshaw,

J. M. (2010). What is an adequate sample size? Operationalising data saturation for theory-based interview studies. *Psychology & Health.* 25 (10), pp. 1229-1245.

Fugate, M., Kinicki, A.J., and Ashford, B.E. (2004). Employability: A psycho-social construct, its dimensions and applications. *Journal of Vocational Behavior*. 65, pp. 14-38.

Fulford. A., and Hodgson, N. (2016). *Philosophy and Theory in Education Research. 1st Ed.* London. Routledge

Fusch, P. I., and Ness, L. R. (2015). Are we there yet? Data saturation in qualitative research. *The Qualitative Report*. 20 (9), pp. 1408-1416.

Gazier, B. (ed.) (1999): Employability, Concepts and Policies. *Report on behalf of the European Commission*, DG V. Berlin: I.A.S.

GCC Education Sector Report. Available From https://gfh.com/wp-content/uploads/2019/10/GFH-Education-Sector-Report.pdf [Accessed 1 April 2019].

George, E. (2006). Positioning Higher Education for the Knowledge Based Economy. *Higher Education*. 52 (4), pp. 589-610.

Gibbons, M. (1998). *Higher Education Relevance in the 21st Century*. The World Bank. pp. 1-63.

Glover, D., Law, S., and Youngman, A. (2006). Graduateness and Employability: student perceptions of the personal outcomes of university education. *Research in Post-Compulsory Education.* 7 (3), pp. 293-306.

Greenbank, P. (2003). The Role of Values in Educational Research: The Case For Reflexivity. *British Educational Research Journal.* 29 (6), pp. 791-801.

Greene, C., Caracelli, J., and Graham, F. (1989). Toward a Conceptual Framework for

Mixed-Method Evaluation Designs. *Educational evaluation and policy analysis*. 11 (3), pp. 255-274.

Greenhalgh, T. (1997). *How to Read a Paper - The Basics of Evidence-Based Medicine*. London: The BMJ Publishing Group.

Guba, E. G., and Lincoln, Y. S. (1994*). Competing paradigms in qualitative research*. In N. K. Denzin & Y. S. Lincoln (Eds.). Handbook of qualitative research (pp. 105-117). Sage Publications.

Guest, G., Bunce, A., and Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods.* 18 (1), pp. 59-82.Hardy, J. (2014). Dynamics in the self-efficacy–performance relationship following failure. *Personality and Individual Differences.* 71, pp. 151-158.

Harvey, L. (2001). *Defining and Measuring Employability Quality in Higher Education.* 7 (2), pp. 97-109.

Harvey, L., Locke, W. and Morey, A. (2002). *Enhancing Employability, Recognising Diversity.* London Universities UK.

Harvey, L. (2003) *Transitions from Higher Education to Work:* A briefing paper prepared by Lee Harvey (Centre for Research and Evaluation, Sheffield Hallam University), with advice from ESECT and LTSN Generic Centre colleagues. Available from: http://bit.ly/oeCgqW [Accessed 9 December 2020].

Harvey, L. (2010). Defining and Measuring Employability. *Quality in Higher Education*. 7 (2), pp. 97-109.

Hayes, A. and Findlow, S. (2017). The role of time in policymaking: a Bahraini model of higher education competition. *Critical Studies in Education.* Taylor and Francis Group.

Higher Education Council. (2014). *National Higher Education Strategy: Putting Higher Education*

at the Heart of the Nation 2014-2024. Kingdom of Bahrain.

Hillage, J. and Pollard, E. (1998) *Employability: Developing a Framework for Policy Analysis. London.* UK Department for Education and Employment (DfEE).

Hinchliffe, W. and Jolly, A. (2011). Graduate Identity and Employability. *British Education Research Journal*. 37 (4), pp. 563-584.

Holland, D., and Reavey, P. (2016). Qualitative longitudinal research: A discussion paper. London *Review of Education*. 14(3), pp. 30-48.

Holland, J., Thomson, R., and Henderson, S. (2006). *Qualitative longitudinal research: A discussion paper*. Working Paper No. 21, Families and Social Capital ESRC Research Group. London South Bank University.

STEM Report. (2012-2013). House of Lords Select Committee on Science and Technology. (2012). *Higher Education in Science, Technology, Engineering and Mathematics (STEM) subjects Report.* Available from https://www.publications.parliament.uk/pa/ld201213/ldselect/ldsctech/37/37.pdf [Accessed 15 February 2019].

HM Treasury. (1997) *Treasury Press Release 122/97, 13th October: Gordon Brown unveils UK Employment Action Plan*. London: HM Treasury.

Hurley, J. (2008) The necessity, barriers and ways forward to meet user-based needs for emotionally intelligent nurses. *Journal of Psychiatric and Mental Health Nursing*. 15, pp. 379-385.

Ingersoll, R., and Strong, M. (2011). The Impact of Induction and Mentoring Programs for Beginning Teachers. *Review of Educational Research*. 81, pp. 201-233.

Irvine, F., Roberts, G. and Bradbury-Jones, C. (2008). The researcher as insider versus the

researcher as outsider: Enhancing rigour through language and cultural sensitivity. *In Doing cross-cultural research*. pp. 35-48. Springer, Dordrecht.

Jackson, D. (2015). Employability skill development in work-integrated learning: Barriers and best practice. *Studies in Higher Education.* 40 (2), pp. 350-367.

Jackson, D. (2017). Developing pre-professional identity in undergraduates through work-integrated learning. *Higher Education: The International Journal of Higher Education Research.* 74 (5), pp. 833-853.

Jackson, D. and Bridgstock, R. (2020). What actually works to enhance graduate employability? The relative value of curricular, co-curricular, and extra-curricular learning and paid work. *Higher Education.* 81, pp. 723-739.

Jackson, D. and Tomlinson, M. (2021). The relative importance of work experience, extra-curricular and university-based activities on student employability. *Higher Education Research and Development.*

Jaeger, A. J. (2003). Job competencies and the curriculum: An inquiry into emotional intelligence in graduate professional education. *Research in Higher Education*. 44 (6), pp. 615-639.

Janahi, E., and McGirr, O. (2017). Flowering in The Desert, Growing Employability, Embedding Quality at Bahrain Polytechnic. Between Collaboration and Competition the Promises and Challenges for Quality Assurance in Higher Education. *INQAAHE Conference 2017.*

Jessop, B., Fairclough, N., and Wodak, R. (2008). *Education and the Knowledge Based Economy in Europe.* Sense Publishers. Netherland.

Johnson, B., and Onwuegbuzie, J. (2004). Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational researcher.* 33 (7), pp. 14-26.

Johnson, R. B. (2014). Examining the validity structure of qualitative research. *Education*. 135 (2),

pp. 225-233.

Jones, C. (2016). *Does studying taught postgraduate management education increase students' perceptions of their employability?* (Doctoral dissertation, Aston University).

Karantzas, G., *et al.* (2013). Enhancing critical analysis and problem-solving skills in undergraduate psychology: An evaluation of a collaborative learning and problem-based learning approach. *Australian Journal of Psychology.* 65, pp. 38–45.

Karolak, M. (2012). Bahrain's tertiary education reform: a step towards sustainable economic development. *Revue des Mondes Musulmans et de la Méditerranée*. 131, pp. 163-181.

Kehm, B. (2015). Higher Education as a Field of Study and Research in Europe. *European Journal of Education.* 50 (1), pp. 60-74.

Kek, M. and Huijser, H. (2011). The power of problem-based learning in developing critical thinking skills: Preparing students for tomorrow's digital futures in today's classrooms. *Higher Education Research and Development*. 30 (3), pp. 329-341.

Kirk, D. (2012). Singapore of the middle east: The role and attractiveness of the Singapore model and TIMSS on education policy and borrowing in the Kingdom of Bahrain. Paper presentation at the *2012 Gulf Research Meeting. In Education for a Knowledge Society in Arabian Gulf Countries*. Published online: 10 Oct 2014. pp. 127-149.

Kitsantas, A., Winsler, A., and Huie, F. (2008). Self-regulation and ability predictors of academic success during college: A predictive validity study. *Journal of Advanced Academics*. 20, pp. 42-68.

Kivinen, O. and Nurmi, J. (2014). Labour Market Relevance of European University Education. From Enrolment to Professional Employment in 12 Countries. *European Journal of Education*. 49 (4), pp. 258-274.

Klegeris , A. and Hurren, H. (2011). Impact of problem-based learning in a large classroom setting: student perception and problem-solving skills. *Advances in Physiology Education*. 35, pp. 408-415.

Knight, P., and Yorke, M. (2002). Employability through the Curriculum. *Tertiary Education and Management*. 8 (4), 261-276.

Knight, P., and Yorke, M. (2003). Assessment learning and employability. *England: SRHE and Open University Press Imprint.*

Kolmos, A., *et al.* (2008). *Facilitation in a PBL environment.* Aalborg: UCPBL UNESCO Chair in Problem Based Learning.

Korstjens, I., and Moser, A. (2018). *Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing*. National Library of Medicine. PubMed.

Krücken, G. (2014). Higher education reforms and unintended consequences: a research agenda. *Studies in Higher Education*. 39 (8), pp. 1439-1450.

Kullberg, A., Runesson Kempe, U., and Marton, F. (2016). What is made possible to learn when using the variation theory of learning in teaching mathematics? *International Journal on Mathematics Education.* 49 (4), pp. 559-569.

Kyndt, E., and Baert, H. (2013). Antecedents of Employees' Involvement in Work-Related Learning: A Systematic Review. *Review of Educational Research*. 83 (2), pp. 273-313.

Lau, H., *et al.* (2014). Impact of participation in extra-curricular activities during college on graduate employability: an empirical study of graduates of Taiwanese business schools. *Educational Studies.* 40 (1), pp. 26-47.

Lent, R., Brown, S., and Hackett, G. (2002). Social cognitive career theory. In D. Brown (Ed.),

Career choice and development. San Francisco: Jossey-Bass.

Lin, Y., and Flores, Y. (2011). Job Search Self-Efficacy of East Asian International Graduate Students. *Journal of Career Development.* 40 (3), pp. 186-202.

Lincoln, Y.S. and Guba, EG. (1985). *Naturalistic inquiry*. California: Sage Publications.

Lincoln, Y.S. (1994). The sixth moment: Emerging problems in qualitative research Paper presented at the *Annual Meeting, Society for Studies in Symboloic Interaction*, Urbana, Illinois

Linnenbrink, E., and Pintrich, P. (2003). The role of self-efficacy beliefs in student engagement and learning in the classroom. *Reading and Writing Quarterly: Overcoming Learning Difficulties.* 19 (2), pp. 119-137.

Liptak, J. J. (2005). Using emotional intelligence to help college students succeed in the workplace. *Journal of Employment Counseling*. 42, pp. 171-178.

Longstreet, W., and Shane, H. (1993). *Curriculum for a new millennium*. Boston. Allyn and Bacon.

Lo Presti, A., and Pluviano, S. (2016). Looking for a route in turbulent waters: Employability as a compass for career success. *Organizational Psychology Review*. 6 (2), pp. 192-211.

Lowden, K., *et al*. (2011). *Employers' Perceptions of the Employability Skills of New Graduates*. London: Edge Foundation.

Macintyre, C. (2012). *The art of action research in the classroom*. Routledge. London and New York.

Madany, I., Ali, S. and Akhter, M. (1988). Note on the expansion of higher education in Bahrain. *Higher Education.* 17, pp. 411-415.

Maibach, E. and Murphy, D.A. (1995). Self-efficacy in health promotion research and practice:

conceptualization and measurement. *Health Education Research.* 10 (1), pp. 37-50.

Marginson, S. (2019) Limitations of human capital theory. *Studies in Higher Education*. 44 (2), pp. 287-301.

Marsh, C. J. (ed.) (1997). *Perspectives: Key concepts for understanding curriculum 1*. London and Washington, D.C. The Falmer Press.

Martin, L., West, J. and Bill, K. (2008). Incorporating Problem-Based Learning Strategies to Develop Learner Autonomy and Employability Skills in Sports Science Undergraduates. *Journal of Hospitality, Leisure, Sport and Tourism Education.* 7 (1), pp. 18-30.

Marton, F., and Pang, M. F. (2013). Meanings are acquired from experiencing differences against a background of sameness, rather than from experiencing sameness against a background of difference: Putting a conjecture to test by embedding it into a pedagogical tool. *Frontline Learning Research*. 1 (1), pp. 24-41.

Marton, F. (2015). *Necessary conditions of learning*. New York. Routledge.

Maskhur Dwi, S., *et al.* (2019). Developing Critical-Thinking Skills through the Collaboration of Jigsaw Model with Problem-Based Learning Model. *International Journal of Instruction*. 12 (1), pp. 1077-1094.

Mason, J. (2010). Qualitative researching. Sage Publications.

Matsui, T., Matsui, K., and Ohnishi, R. (1990). Mechanisms underlying math self-efficacy learning of college students. *Journal of Vocational Behaviour*. 37, pp. 225-238.

Mays, N., Pope, C., and Popay, J (2005). Systematically reviewing qualitative and quantitative evidence to inform management and policy-making in the health field. *Journal of health services research & policy.* 10 (1), pp.6-20.

McQuaid, R., and Lindsay, C. (2005). The Concept of Employability. *Urban Studies*.42 (2), pp.

197-219.

Miles, M.B, and Huberman., A.M. (1994). *Qualitative data analysis: An expanded sourcebook*. London, England: Sage.

Mills, M., and Bonner, A. (2019). Longitudinal qualitative research: A guide to design and analysis. *Australian Journal of Primary Health*. 25 (2), pp. 105-110.

Moog, R., and Spencer, J. (2008). Process Oriented Guided Inquiry Learning (POGIL). POGIL: An Overview. *ACS Symposium Series*. American Chemical Society. Washington, DC.

Moore, I., and Poikela, S. (2011). *Evaluating Problem-based Learning Initiatives*, in Barrett, T. & Moore, S. (Eds.), *New Approaches to Problem-based Learning: Revitalising Your Practice in Higher Education*. New York: Routledge.

Moore, T., and Morton. J. (2015). The Myth of Job Readiness? Written Communication, Employability and the 'Skills Gap' in Higher Education. Studies in Higher Education.

Morin, L., and Latham, G. P. (2000). The effect of mental practice and goal setting as a transfer of training intervention on supervisors' self-efficacy and communication skills: An exploratory study. Applied Psychology: *An International Review*. 49, pp. 566-578.

Murray, S., and Robinson, H. (2001). Graduates into sales – employer, students and university perspectives. *Education and Training*. 43 (3), pp. 139-145.

Neale, B. (2016). *Introducing qualitative longitudinal research. In What is Qualitative Longitudinal Research?* Available from http://dx.doi.org/10.5040/9781472532992.0006 [Accessed May 7, 2023].

Nehls, N. (1995). *Narrative Pedagogy: Rethinking Nursing Education*. Available from

https://journals-healio-com.sheffield.idm.oclc.org/doi/10.3928/0148-4834-19950501-05 [Accessed 10 January 2020].

Niu, Y., *et al.* (2019). Self-Perceived Employability and Subjective Career Success: Graduates of a Workforce Education and Development Program. *The Journal of Continuing Higher Education.* 67 (2-3), pp. 55-71.

OECD (2010), Measuring Globalisation: OECD Economic Globalisation Indicators 2010, OECD Publishing, Paris, https://doi.org/10.1787/9789264084360-en.O'leary, Z. (2017). *The Essential Guide to Doing Your Research Project*. SAGA. United Kingdom.

O'leary, Z. (2017). *The Essential Guide to Doing Your Research Project*. SAGA. United Kingdom.

Oxford Languages Dictionary. Available from https://languages.oup.com/google-dictionary-en/ [Accessed 13 November 2020].

Pajares, F. (2003). Self-efficacy beliefs, motivation and achievement in writing. *Reading and Writing Quarterly.* 19 (2), pp. 139-158.

Pajares, F. (2004). *Albert Bandura: Biographical sketch*. Available from http://des.emory.edu/mfp/bandurabio.html [Accessed 13 November 2018].

Pajares, F. (2005). Self-efficacy during childhood and adolescence: implications for teachers and parents. In *Self-efficacy Beliefs of Adolescents* (Pajares F. and Urdan T., eds). pp. 339-367.

Palmer, D. (2006). Sources of Self-efficacy in a Science Methods Course for Primary Teacher Education Students. *Research in Science Education*. 36, pp. 337-353.

Pastirik, P. (2006). Using Problem-based Learning in a Large Classroom. *Nursing Education in Practice*. PubMed. 6 (5), 261-7.

Patton, M. Q. (1990). *Qualitative Evaluation and Research Methods*: SAGE Publication, inc.

Pavlin, S., and Svetlik, I. (2014). Employability of higher education graduates in Europe. *International Journal of Manpower.* 35 (4), pp. 418-424.

Pegg, A., *et al.* (2012). *Pedagogy for employability*. The Higher Education Academy.

Peterson, T.E., (2012) Constructivist Pedagogy and Symbolism: Vico, Cassirer, Piaget, Bateson, *Educational Philosophy and Theory*. 44(8), pp. 878-891.

Petty, R. E., and Cacioppo, J. T. (1986). *Communication and persuasion: Central and peripheral routes to attitude change*. New York: Springer.

Phan, H. P. (2012). Relations between informational sources, self-efficacy and academic achievement: a developmental approach. *Educational Psychology*. 32 (1), pp. 81-105.

Phoenix, D. (2003) Government policy and higher education. *Journal of Biological Education.* 37 (3), pp. 108-109.

Pleschová, E., and Simon, G. (Editors) (2012). *Teacher Development in Higher Education: Existing Programs, Program Impact, and Future Trends*. Routledge. New York.

Pool, D. (2020). Revisiting the CareerEDGE model of graduate employability. Journal of the National Institute for Career Education and Counselling. 44 (1), pp. 51-56.

Pool, D., and Sewell, P. (2007). The key to employability: developing a practical model of graduate employability. *Education and Training*. 49 (4), pp. 277-89.

Pool, D., Qualter , P., and Peter, J. S. (2014). Exploring the factor structure of the CareerEDGE employability development profile. *Education and Training*. 56 (4), pp. 303-313.

Poortvliet, P., and Darnon, C. (2014) Understanding Positive Attitudes toward Helping Peers: The Role of Mastery Goals and Academic Self-Efficacy. *Self and Identity.* 13 (3), pp. 345-363.

Psacharopoulos, G., and Woodhall, M. (1997). *Education for Development: An Analysis of*

Investment Choice. New York: Oxford University Press.

Quality Assurance Agency for Higher Education, (2017). *How universities and employers can work together to improve graduate outcomes: evidence from QAA reviews*. Available from www.qaa.ac.uk. [Accessed 5 April 2019].

Rae, D. (2007). Connecting Enterprise and Graduate Employability: Challenges to the Higher Education Culture and Curriculum. *Education and Training*. 49 (8/9), pp. 605-619.

Raty, H., *et al.* (2018). University Students' Perciptions of their 'Ability Selves' and Employability: A Pilot Study. *Nordic Journal of Studies in Educaional* Policy. 4 (2), pp. 107-115.

Ravenscroft, B., and Luhanga, U., 2015. Developing employability skills in humanities and social sciences using the flipped model. *Leading Issues in elearning.* 2, pp. 30.

Redmond, B. (2013). *Self-Efficacy and Social Cognitive Theories*. Available from https://wikispaces.psu.edu/display/PSYCH484/7.+Self-Efficacy+and+Social+Cognitive+Theories [Accessed 26 February 2019].

Repetto Talavera, E., and Pérez-González, J. C. (2007). Training in socio-emotional skills through on-site training. *European Journal of Vocational Training*. 40 (1), pp. 83-102.

Resnick, B. (2013.) Self-efficacy. *In Middle Range Theories: Application to Nursing Research, 3rd edn* (Peterson S.J. and Bredow T.S., eds), Wolters Kluwer Health. Philadelphia. PA. pp. 82-95.

Roberts, D. (2010). Vicarious learning: a review of the literature. *Nurse Educ Pract*. 10 (1), pp. 13-16.

Rogers, L., Lewis, F., and Edmonds, J. (2017) Paired peer learning through engineering education outreach. *European Journal of Engineering Education*. 42(1), pp. 75-90.

Rokeach, M. (1973) *The Nature of Human Values* (New York, The Free Press).

Rorty, R. (1991*). Objectivity, relativism, and truth: Philosophical papers*. Volume 1. Cambridge University Press.

Rossman, G. B., and Wilson, B. L. (1985). *Numbers and Words: Combining quantitative and qualitative methods in a single large-scale evaluation study.*

Royal decree 65. Available from www.polytechnic.bh [Accessed 20 February 2019].

Sahin, M. D., and Ozturk, G. (2019). Mixed Method Research: Theoretical Foundations, Designs and Its Use in Educational Research. *International Journal of Contemporary Educational Research.* 6 (2), pp. 301-310.

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., and Jinks, C. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Quality & Quantity.* 52 (4), pp. 1893-1907.

Sawtelle, V., Brewe, E., and Kramer, L. (2012). Exploring the Relationship Between Self-Efficacy and Retention in Introductory Physics. *Journal of Research in Science Teaching*. 49 (9), pp. 1096-1121.

Schomburg, H., and Teichler, U. (2007). Higher education and graduate employment in Europe*: results from* graduate *surveys from twelve countries. Studies in Higher Education*. 32 (5), pp. 676-677.

Schunk, D. (1989). Self-efficacy and cognitive skill learning. In C. Ames, and R. Ames (Eds.), *Research on motivation in education*. (3), pp. 13-44.

Schunk, D. (1991). Self-Efficacy and Academic Motivation. *Educational Psychologist*. 26 (3-4), pp. 207-231.

Schunk, D. H., and Ertmer, P. A. (1999). Self-regulatory processes during computer skill acquisition: Goal and self-evaluative influences. *Journal of Educational Psychology*. 91 (2), pp. 251-260.

Schunk, D, and Pajares, F. (2001). *The development of academic self-efficacy*. In A. Wigfield, and J. S. Eccles (Eds.). Development of achievement motivation. San Diego, CA: Academic Press.

Schunk, D. (2003). Self-efficacy for reading and writing: Influence of modelling, goal setting and self-evaluation. *Reading and Writing Quarterly: Overcoming Learning Difficulties*. 19 (2), pp. 159-172.

Scott, F. J., Connell, P., Thomson, L. A., and Willison, D. (2019). Empowering students by enhancing their employability skills. *Journal of Further and Higher Education*. 43 (5), pp. 692-707.

Silver, L., *et al.* (2012). *The Essentials of Marketing Research*., Taylor and Francis Group. ProQuest Ebook Central. Available from http://ebookcentral.proquest.com/lib/sheffield/detail.action?docID=1075439 [accessed 18 October 2020]

Silverman, D. (2016). *Qualitative research*. 4th ed. SEGA publication.

Sim, J., and Sharp, K. (1998). A critical appraisal of the role of triangulation in nursing research. *Int J Nurs Stud*. (35), pp. 23-31.

Simpson, T. (2013). *The Relevance of Higher Education: exploring a contested notion*. Lexington Books. UK.

Smith, J. K., and Johnson, L. M. (2020). *Survey Design and Methods in Social Research*. Cambridge University Press.

Smith, C., Ferns, S., and Russell, L. (2014). *Conceptualising and measuring 'employability': lessons from a National OLT Project.* Gold Coast, Australian Collaborative Education Network Limited. pp. 1-10.

Soylu, I., *et al*. (2017) Secondary Students' Writing Achievement Goals: Assessing the Mediating Effects of Mastery and Performance Goals on Writing Self-Efficacy, Affect, and Writing Achievement. *Frontiers in Psychology.* 8 (1406), pp. 1-11.

Speight, S., Lackovic, N., and Cooker, L. (2013) The Contested Curriculum: Academic learning and employability in higher education. *Tertiary Education and Management*. 19 (2), pp. 112-126.

Stephenson, J., and Yorke, M. (Eds.). (1998). *Capability and quality in higher education.* London. Kogan Page.

Stewart, J., and Rigg, C. (2011). *Learning and Talent Development CIPD*.

Stiwne, E., and Jungert, T. (2010). Engineering students' experiences of transition from study to work. *Journal of Education and Work*. 23 (5), pp. 417-437.

Sumanasiri, E., Yajid, M., and Khatibi, A. (2015). Review of Literature on Graduate Employability. *Journal of Studies in Education*. 5 (3), pp. 75-88.

Tan, O. S. (2003). *Problem-based learning innovation: Using problems to power learning in the 21st century*. Singapore Thomson Learning.

Tashakkori, A., and Teddlie, C. (Eds.). (2003). *Handbook of mixed methods in social and behavioral research*. Sage Publications.

Tchibozo, G. (2007). Extra-Curricular Activity and the Transition from Higher Education to Work: A Survey of Graduates in the United Kingdom. *Higher Education Quarterly*. 6 (1), pp. 37-56.

The Arab Weekly (2019). Bahrain cutting budget deficit. Available from *https://thearabweekly.com/bahrain-cutting-budget-deficit* [Accessed 2 Feb 2019].

Tight, M. (2003). Researching Higher Education. *The Society for Research into Higher Education. 2nd Ed*. SRHE Open University Press.

Tilley, S., Chambers, M., and Mackenzie, J. (1996). Problems of the researching person: doing insider research with your peer group. *Journal of psychiatric and mental health nursing*. 3 (4), pp. 267-267.

Tomlinson, M. (2012). Graduate Employability: A Review of Conceptual and Empirical Themes. *Higher Education Policy.* (25), pp. 407-431.

Topping, K. (2005). Trends in peer learning. *Educational Psychology.* 25 (6), pp. 631-645.

Trede, F., and McEwen, C. (2015). Early workplace learning experiences: what are the pedagogical possibilities beyond retention and employability? *Higher Education: The International Journal of Higher Education and Educational Planning*.69 (1), pp. 19-32.

Tuli, F. (2011). The basis of distinction between qualitative and quantitative research in social science: Reflection on ontological, epistemological and methodological perspectives. *Ethiopian Journal of Education and Sciences.* 6 (1).

UKCES (2010). *Skills for Jobs: Today and Tomorrow - The National Strategic Skills Audit for England*. Vol 1

United Nations. *World Data on Education 2010/2011.* Available from http://www.ibe.unesco.org/en/document/world-data-education-seventh-edition-2010-11 [Accessed 2 December 2018].

University of Central Lancashire. Available from www.uclan.ac.uk [Accessed 2 January 2020]

Vandervoort, D. J. (2006). *The importance of emotional intelligence in higher education. Current*

Psychology: Developmental-Learning Personality-Social. 25 (1), pp. 4-7.

Voegtle, E., Knill, C., and Dobbins, M. (2011). The impact of the Bologna-process on domestic higher education policies. *Higher Education*. 61 (1), pp. 77-94.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes. Massachusetts.* Harvard University Press.

Wallacea, B., and Kernozekb, T. (2017). Self-efficacy theory applied to undergraduate biomechanics instruction. *Journal of Hospitality, Leisure, Sport and Tourism Education*. 20, pp. 10-15.

Wen Su, S. (2012). The Various Concepts of Curriculum and the Factors Involved in Curricula-making. *Journal of Language Teaching and Research*. 3 (1), pp. 153-158.

Whatley, J. (2012). Evaluation of a Team Project Based Learning Module for Developing Employability Skill Informing Science and Information Technology. *Informing Science and Information Technology.* (9), pp. 75-90.

Williams, B., et al. (2017). Self-efficacy perceptions of interprofessional education and practice in undergraduate healthcare students. *J Interprof Care.* 31 (3), pp. 335-34.

Wilson, T. (2012). *Review of business–university collaboration*. Department for Business, Innovation and Skills. London, UK.

Wood, R., and Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of Management Review.*14, pp. 361-384.

World Economic Forum. (2020), *These are the top 10 job skills of tomorrow – and how long it takes to learn them.* Available form https://www.weforum.org/agenda/2020/10/top-10-work-skills-of-tomorrow-how-long-it-takes-to-learn-them/ [Accessed 5 December 2021].

World TVET database Bahrain. Available from https://unevoc.unesco.org/wtdb/worldtvetdatabase_bhr_en.pdf. [Accessed 8 December 2018].

Wright, E., and Osman, R. (2018). What is critical for transforming higher education? The transformative potential of pedagogical framework of phenomenography and variation theory of learning for higher education. *Journal of Human Behavior in the Social Environment*. 28 (3), pp. 257-270

Yang, P., and Lu, G. (2007). Indigenous and Cultural Psychology: Understanding People in Context. *Pastoral Psychology*. 56 (1), pp. 105-113.

Yorke M. (2001). *Employability in Higher Education: what it is - what it is not.* York. Higher Education Academy.

Yorke, M. (2004). Employability in the Undergraduate Curriculum: some student perspectives. *European journal of education*. 39(4), 409-427.

Yorke, M., and Knight, P. (2004a). *Embedding Employability into the Curriculum.* Learning and Teaching Support Network (LTSN). The Network Centre. 4 Innovation Close. York Science Park. York.

Yorke, M., and Knight, P. (2004b) *Learning, Curriculum and Employability in Higher Education* (London, Routledge Falmer).

Yorke, M., and Knight, P. (2006). Embedding employability into the curriculum. *Learning and Employability. Series 1 No. 3. Higher* Education Academy. Available from http://www.heacademy.ac.uk/assets/York/documents/ourwork/employability/id460_embedding_employability_into_the_curriculum_338.pdf [Accessed 15 April 2019].

Yorke, M., and Knight, P. (2007). Evidence-informed pedagogy and the enhancement of student

employability. *Teaching in Higher Education.* 12 (2), pp. 157-170.

Yorke, M. (2010). Employability: aligning the message, the medium and academic values. *Journal of Teaching and Learning for Graduate Employability*. 1 (1), pp. 2-12.

Yuan, Y., and Hunt, R. (2009). Systematic Reviews: The Good, the Bad, and the Ugly. *The American journal of gastroenterology*.104 (5), pp. 1086-1092.

Zulkosky, K. (2009). A Concept Analysis Self-Efficacy: A Concept Analysis. *Nursing Forum*. 44 (2), pp. 93-102.

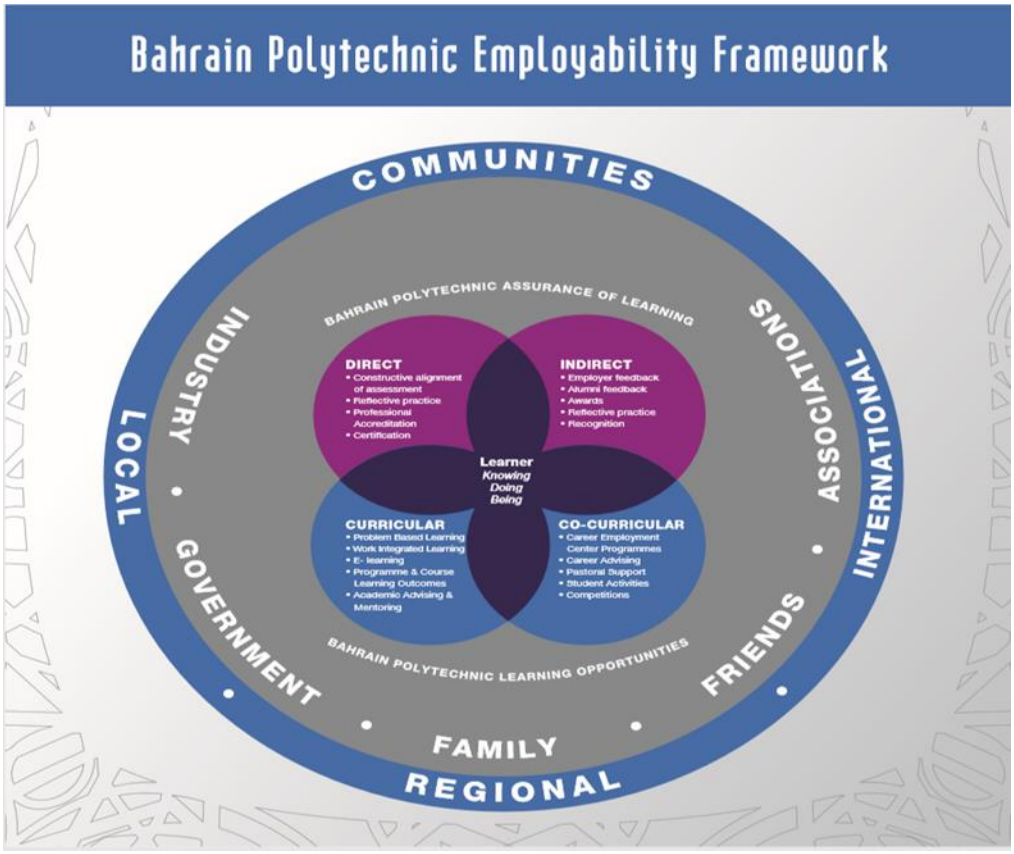
Appendices

Appendix (1)

Communication	•Communicate effectively in ways that contribute to productive and harmonious relationships across stakeholders.
Team work	•Work effectively independently and in collaboration with others through a common approach towards a common goal.
Problem solving	•Analyse a problem critically and respond appropriately to organisational and societal needs.
Initiative and enterprise	• Apply resourcefulness, innovation and strategic thinking in an organisational context.
Planning and organisation	•Efficiently and effectively plan and manage work commitments
Self management	•Demonstrate self-discipline, resilience and adaptability, and be able to plan and achieve personal and professional goals
Learning	•Understand the need for and engage in life-long learning
Technology	•Utilize information technology effectively and ethically in their personal and professional lives

21st Century (Employability) Skills Framework (2010)

Appendix (2)



Appendix (3)

Graduate Data Research Project

Academic Development Directorate

September 2018

The Research Project

This research is a follow through of the graduate data research project launched in 2017 to look into the learning journey experience of Bahrain Polytechnic graduates. This was identified as an Academic Development Directorate (ADD) Key Performance Indicator (KPI) for 2016-7.

The purpose of the study remains to gain an understanding of how alumni rated their teaching and learning experience at Bahrain Polytechnic. It is also important to see whether the programme intended learning outcomes are being met to deem the programme as effective this resulting into a well-prepared career path.

Aim

The aim of the research project was to conduct a study and to investigate the perceptions of the teaching and learning experience of Bahrain Polytechnic graduates.

Objectives

The objectives of the study were

- To identify and describe the experience of teaching and learning of BP graduates
- To document the accounts of experience of the participants from cohort 6-9 only
- To consider the implications of the experience of teaching and learning for enhancement of practice at Bahrain Polytechnic

Methodology

As in the previous study, the data gathered for the study was done quantitatively through the Quality Unit (QMA) and a qualitative case study done by the Academic Development Directorate (ADD).

Methods

An online survey was done with a large sample, followed by a semi-structured focus-group interviews with a smaller cohort of the participants of the study. By working with interviews as a supporting data-generation method. These results are now triangulated in this report.

Data Collection

Survey

The survey content was designed by Quality, Measurements, Analysis and Planning (QMAP) and sent out for consultation. Feedback from ADD and Deans were incorporated. The survey was compiled, reviewed, and prepared for dissemination. Participants were chosen based on the students belonging to cohorts 6-9 and have completed their studies at Bahrain Polytechnic. A link to the survey was sent to participants by email and completed by October 2018. A total of 256 former students responded. The data was collected by the Measurement and Analysis Unit in QMAP and prepared in spreadsheet format for further analysis by TLU in November – December 2018.

Focus groups

The questions for the focus-group interviews were drafted by the Teaching and Learning Unit in ADD using the published programme intended learning outcomes per programme major. The help of the Career and Employment Centre (CEC) was obtained to contact participants to gain their consent and agree for an appointment time for interview. The data were collected by the Acting Manager of the Teaching and Learning Unit using semi-structured interviews. A Teaching and Learning Specialist assisted in notetaking during the 60-minute group interviews, during which questions pertaining to experience were posed.

Participants were asked to clarify and elaborate on specific points raised during the course of the focus-group to help understand the meaning of the experiences described as per their perception. All interviews were recorded, with the consent of the interviewees, and all data subsequently were transcribed in note form, so annotating the completed written data compiled in the sessions.

19 participants were interviewed and divided into five programme groups according to the programme major: B. Business (3 participants), B. Logistics (5), B. Engineering (5), B. ICT (2), B. Visual design (3) and B. Web Media (1). All participants were interviewed on campus. The focus group interviews were conducted between 23rd – 27th September 2018.

Data collation and analysis

The data were collated into respective programme groups. Before the interview and discussions, the participants were assured that their identities shall be kept in strict confidence thus they were encouraged to be open in their responses as well as in the sharing of their views. All notes were saved electronically, encrypted and password protected. The collated responses were manually open coded by the Acting Manager of the Teaching and Learning Unit to identify the emerging predominant themes though a process of interpretation of the key strands of data.

Results and Findings

The Bahrain Polytechnic graduates gave interesting and excellent feedback in relation to their teaching and learning experience at the institution. The interviewees answered all the questions posed during the focus groups, providing detailed responses to the open-ended questions provided.

In general, the alumni who sat for the focus group interviews results indicate that the Programme Integrated Learning Outcomes for their programmes of study had been met or partially met. The survey data supported this with a clear majority of those who completed the questionnaire indicating that they were satisfied (38.78 per cent) or very satisfied (50.34 per cent) with their undergraduate experience.

As evidenced in the survey, a substantial number of alumni (43 – 50 per cent) who responded to the survey indicated that their problem-solving skills have been well developed. The focus-group respondents attested to this citing the use of problem-based and project – based learning as key to the development of this key skill. Connected to this, along the lines of problem-solving skills, majority of the points were rated as 'good' with using information

technologies and search strategies to access information at 55.80 per cent and defining problems receiving the 2nd highest rating at 51.93 per cent. Again, these were linked and corroborated by the focus group participants as most of them work in using IT in some shape or form. Problem definition and unpacking have also been identified as key areas that they are most comfortable in doing.

Overwhelmingly attested to be the fact that the survey participants identified that their professional skills such as preparation for their career, leading and mentoring others, adaptability, working in teams, working independently and the like, were well honed as the percentages ranged for each in the high 50s. This was corroborated by several comments as well as "met" points noted among the focus group responses.

The participants agreed that their learning journey at the Polytechnic did prepare them for their professional careers. 67.35 per cent of the survey respondents agreed that their training at the Polytechnic made them more workplace competitive as compared to others. In the focus group interviews, this was highlighted by several of the participants as they mentioned that since several of the PILOs were met, these resulted in them being assigned leadership roles in their company's projects. This also ties in very well with 56.35 per cent of alumni who perceived the successful teaching of leadership skills as an important aspect of personal development.

In terms of communication skills, all points were rated at "excellent". Several survey respondents (60.22 per cent) highlighted that overall, their communication skills have improved dramatically. Understanding written and oral information was rated at a close 2nd highest with 58.56 per cent. 93 per cent of those surveyed also indicated that improvement of general communication skills represented a key outcome of their programme of study. These skills have been highlighted across majority of the programmes as a key development area that they have used in the workplace. Some of the focus group participants mentioned that communication in ways that contribute to productive and harmonious relationships across employees and customers have also been enhanced through their experience at the Polytechnic.

For general skills development, the points were rated between the ranges of "good and excellent". Respondents to the survey believed that their undergraduate experience at BP

prepared them well to develop self-esteem / confidence which rated highest at 47.51 per cent and understanding their own abilities, interests, limitations, and personality comes in 2nd at 45.3 per cent. Focus group participants noted that these were among the qualities that their tutors emphasized, and they are now applying these in their professions.

Development of professional skills were rated at "excellent" where the majority graduates who responded to the survey acknowledged believed that working in teams (58.56 per cent) and working independently (55.25 per cent) were the skills most developed and / or enhanced by completing a programme of study with Bahrain Polytechnic. Team working and collaboration has always been linked to the use of problem and project-based learning which the alumni found very useful as most of their work scenarios involve teamwork.

There was repeated emphasis from the survey participants about the quality of the teaching and learning PBL methodology, the uniqueness and usefulness of the self-dependent learning approaches across their years of study. The focus-group participants expressed high levels of satisfaction with the teaching methodology, as well.

Regarding which do the alumni consider as extremely important significance in terms of development, the areas that the alumni: ddeveloping skills valuable in the workplace takes the highest value (73.48 per cent) followed by teaching leadership skills (56.35 per cent). These chimes very well with the focus group responses showing that the development of employability skills necessary to succeed in the workplace and are recognized as a fundamental need in the industry. Those that are considered important are: fostering public service (53.59 per cent) and responsiveness to alumni concerns and faculty-student contact outside class are tied are 48.62 per cent.

In terms of connectedness to the Polytechnic, majority of the survey respondents moderately felt connected (33.73 per cent) and 29.52 per cent did not feel connected at all. 89.16 per cent still get in touch regularly with classmates/friends met at the Polytechnic. 51.81 per cent see the significance of remaining in contact with either their Faculty / School and the institution as a whole. Though not as much elaborated on by the focus group alumni, a few did mention that they did not feel as connected to the Polytechnic as they hoped they would.

There was a general commendation for the academic staff members for being instrumental in the learning journey of the alumni. There also were particular tutors mentioned who have been recognized as exceptional in their roles as tutors and have contributed a lot in their learning journey and their eventual progress and achievement, professionally. Both survey and focus group participants stated the significance of the industry focus of programmes that they saw as pivotal in them understanding the workplace and aiding them to learn in a workplace setting. Moreover, there were several statements that the projects and internships were very authentic and of high value that aided them gain the skills they required.

All participants in the focus groups mentioned the development of various specific employability skills as highly appreciated. These were valued as these are being used in the workplace, corroborating the high number of survey responses which rated the undergraduate experience as excellent or very good in terms of preparation for the current career (80.42 per cent).

The area of least impact identified by the respondents in the survey and in the focus groups was international experience. 75.8 per cent of survey respondents who answered the question about international experiences facilitated by the Polytechnic stated that they had none. Of the remaining 43 per cent, only 14.65 per cent indicated that the research projects conducted during their programme of study had provided the international experience. In the focus-groups, no one indicated of any international experience while in the Polytechnic.

Emerging themes

Three salient themes emerged from the data analysis relating to the graduates' experience of teaching and learning: *employability, identity and reputation*.

Table 1: EMERGING THEMES FROM DATA ANALYSIS

Employability	
Skills (developed)	"Challenging assignments helped us analyze workplace issues." "Having time-pressure with our projects in the Polytech aided me to enhance my time management skills." "I motivated my staff members to work together."

Achievement (of learning)	"PBL helped a lot, and I was able to develop problem-solving skills" "We were trained to improve our research analytical and problem-solving skills." "We had integrated and well-rounded educational experience."
Attributes	"PBL became the default way of operating." "Learned a lot about how to be professional, giving feedback, learning new things, being a problem solver, not depending on others, curiosity to learn, being proactive, self-dependent learning, continuous learning." "Communication skills helped me in work environment and to work professionally." "I have become a team player."
Identity	
Uniqueness (of the BP graduate)	"Our bosses see us different from our colleagues who graduated from other institutions."
Flexibility	"Adaptability in changing work scenarios and challenges are just fine with me." "I am willing to learn new things at work."
Development	"I have gained the all the skills which are crucial for the market i/e communication skills, teamwork, problem solving." "I look forward to new training to upskill myself!"
Reputation	
Good standing	"My supervisor entrusts me with particular tasks." "Our supervisors mention time and again what differentiates us from the others."
Employers' choice	"Our HR Manager asks if we could recommend and forward CVs of co-Polytechnic graduates for varied posts in the company." "In meetings, there is mention time and again about the company not having any regrets having hired Polytechnic graduates."
Sense of worth	"I was fortunate and qualified enough to enter the labor market strongly." "The Polytech aided us to build up our self-esteem."

STUDY COMPARISON (2017 and 2018 study cohorts):

A. Method, Methodology and Objectives:

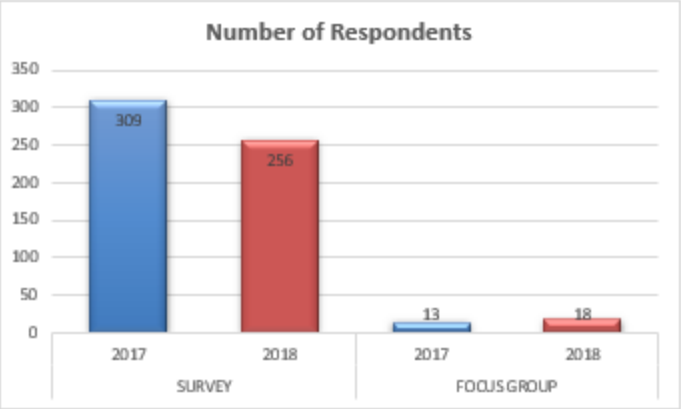
Both the method and methodology applied were the same. Apart from a comparative perspective, the objectives also remained the same.

B. Samples of respondents:

Table 2: NUMBER OF RESPONDENTS FROM SURVEY AND FOCUS GROUPS

SURVEY		FOCUS GROUP	
2017	2018	2017	2018
309	256	13	18

Graph 1: Number of Respondents



C. Key Findings:

1. There was an overall perspective from both study cohorts that the Programme Integrated Learning Outcomes for their respective programmes of study had been met or partially met. There are pertinent suggestions and recommendations provided by the alumni in a later section of this report.

Table 3: OVERALL SATISFACTION RATE RE: UNDERGRADUATE EXPERIENCE (Survey %)

Satisfied		*Very satisfied*	
2017	2018	2017	2018

49	39	37	50

N: 309 (2017); 256 (2018)

Graph 2: OVERALL SATISFACTION RATE RE: UNDERGRADUATE EXPERIENCE (Survey %)

N: 309 (2017); 256 (2018)

2. In both study cohorts, there always was a strong repeated positive attestation from both the survey and focus group participants about the quality of the teaching and learning in the institution, largely attributed to the intensive use of student-centered methods, particularly problem-based learning (PBL) and project-based learning (PjBL).

3. Both study cohorts agreed on having both general as well as professional skills development during their Bahrain Polytechnic journey. Majority agreed that they were satisfied in the way they were prepared for the workplace.

Table 4: TOP SKILLS DEVELOPMENT and IMPROVEMENT

2017 study		2018 study	
General Skills	**Professional Skills**	**General Skills**	**Professional Skills**
General problem-solving skills (86%)	Team work (88 %)	Self-esteem / confidence (47.51%)	Team work and collaboration (58.56%)
Critical analysis of information and ideas (83%)	Conducting work activity in an ethical manner (89 %)	Uunderstanding one's own abilities, interests, limitations, and personality (45.3%)	Working independently (55.25 %)
Life-long learning *(as stated in report but % unavailable)*		Life-long learning (41.99%)	

Written and oral communication (93%)			

Note: Highlighted skills are repeating in both study cohorts.

4. In terms of connectedness to the institution, some variations between the 2 study cohorts were noted:

Table 5: CONNECTEDNESS TO THE INSTITUTION

Criteria	2017	2018	Comments
Feeling connected to the Polytechnic	Focus group (100%) Survey group (52%)	Focus group (76%) Survey group (34%)	a desire to remain connected and the aspiration to return to study because of their initial experience on the undergraduate programmes
Continued contact with tutors	46%	24%	
Connectedness to the Faculty / School	51%	52%	
Strongest connection	Programme peers (79%)	Programme peers (89 %)	

5. Both study cohorts mentioned about the impact on industry-driven focus of the programmes as very significantly important in their studies.

6. The area of least impact identified by the respondents in both study cohorts was international experience. Several did request for the Polytechnic to develop this in order to offer more substantial learning growth for the students.

Limitations of the study

The findings for the qualitative / focus group sessions cannot be generalized for a wider population due to the low turnout of participants. Nevertheless, as common repeating themes were noted during the interviews then there is still value in sharing and informing the relevant stakeholders regarding the overall student experience at Bahrain Polytechnic

For further iterations of this study with future cohorts, it would be beneficial to ensure that all programmes are represented at the focus-group stage. This would ensure validity and more encompassing perspective from the alumni

Conclusion and recommendations

The findings of this study highlight the overall impact and outcomes for Bahrain Polytechnic alumni who have completed their studies in the institution.

Suggestions and recommendations have also been put forward to aid in the development and improvement of the programmes offered at Bahrain Polytechnic.

Key recommendations for the academic and operational development include:

A. CURRICULUM:

1. Increase the courses within a major rather than the common ones
2. Open summer classes for failed students and for those who would be interested on advancing themselves.
3. Suggest to look into including international experiences such as student exchange programmes.
4. Expand to international internship programs
5. Suggest to have longer time for internship to help graduating students about the work environment
6. Please train students in the latest software and app technologies being used in industry
7. Look into the inclusion of workplace experience early on such as in 1st semester degree.
8. Suggest that the final project for graduation should be more practical than research.
9. Please consider having post graduate degree offerings like Master's degrees and maybe even PhD's.
10. Please use more real case studies for current problems facing organizations and companies in Bahrain
11. Include compulsory social involvement and volunteering work as part of the curriculum.

12. Develop a course that really trains students to not only become leaders but become better leaders.
13. How to integrate more workplace related issues and enhance independent works done.
14. Professional certification examinations even while studying
15. Involve more external companies and organizations with the design of the curriculum
16. Look into projects that could be done by several programmes at the same time – this is what is happening in industry where different disciplines work together to solve a common problem.
17. Improve the electives system to include courses more related to the students' majors.
18. We need more innovation in our courses
19. Engaging the students in further research in collaboration with the faculty.
20. Increase focus on innovation and strategic thinking
21. Suggest course dealing with work conflict, work challenges, work resilience, work stress and how to deal with them
22. Suggest more emphasis on particular employability skills such as planning and organizing, dealing with issues within a team / group, enhancing presentation skills, time, and workload management
23. Suggest to encourage students to join competitions

B. GRADUATE DESTINATION

1. Keep researching for jobs that are needed by the market in Bahrain and update the curricula to prepare the students for those jobs.
2. Aside from preparing students for the industry, prepare them also for taking on further studies, as there are also those who are interested to do so.
3. Connect with the alumni more as we could share what we see is lacking in our learning journey that we have to deal with now in industry

C. QUALITY OF INSTRUCTION

1. Recruit tutors who, not only have the necessary qualifications but also have good communication, teaching, facilitation skills.

2. Suggest a more open-door policy with the tutors

D. EXTRA-CURRICULAR ACTIVITIES

1. Mandatory participation for students in Polytechnic events and workshops
2. Doing research is such a big gap in Bahrain so we need to be trained to do such.
3. More student activities

E. CAMPUS

1. Improve the overall "look" and teaching and learning facilities of the Polytechnic.
2. Please improve the facilities: car parking, there is a need for a proper cafeteria, library needs expansion.

F. POLYTECHNIC RULES AND REGULATIONS

1. Please re-evaluate the student acceptance criteria. Coming in with good secondary school marks, good command of English does not automatically mean that they will function well in the Polytechnic
2. Improved class timings and flexibility, especially with working students
3. Suggest to offer more part time jobs in the university

G. SPECIFIC PROGRAMME SUGGESTIONS

1. ICT

   a. Have an intro course of business in ICT as several alumni work in business environments
   b. More courses on new tech e.g., Blockchain, Fintech, Iot, AWS cloud

2. Business

   a. Suggest to include more technology-based courses in Business courses as this is needed in the industry (business IT tools)

3. Logistics

a. Develop a course or have topics about logistics in Bahrain to include intro to logistics in Bahrain, freight and customs clearance, logistics zone, airport /port standard purchase, land-based transport systems.
b. Introduce transport, communication, and logistics systems early on in the degree not in the final year only.
c. More site visits to logistics pertinent facilities
d. Need to have a course about logistics in Bahrain, graduates enter the industry only with knowledge of the international scope but very little about Bahrain.
e. Look into merging the following courses as they have several overlaps: Geography, Urban Public transport, and Passenger Transport
f. Suggest to have a course for green logistics and reverse logistics

4. **Visual Design**
   a. Suggest to focus on the process books only in the early years, as the process books are not even used in the industry
   b. Suggest more time for Arabic design, typography
5. **Web Media**
   a. Suggest to emphasize on practical aspect of web publishing through a server
   b. Suggest to have training in creating content (creative writing)
6. **EDICT**
   a. Suggest to have courses such as technical writing and engineering design from the 1st year
   b. Suggest to emphasize on teaching students how to properly do engineering drawings

In responding to the above, Bahrain Polytechnic will continue to meet its Strategic Goals of Assurance of Learning and Reputation #3 and #5 (Bahrain Polytechnic , 2015), ensure currency in practice, and provide a meaningful experience for all its work-ready graduates-in-waiting.

References

Bahrain Polytechnic . (2015). *Bahrain Polytechnic Strategic Plan 2015-2019*. Isa Town: Bahrain Polytechnic.

RE: permission to use Employable Skills Self-Efficacy Inventory

Ciarocco, Natalie <nciarocc@monmouth.edu>

To Ema Janahi

Reply | Reply All | Forward

Fri 11/9/2018 7:02 PM

Ema,

If it will be helpful to your research, please use the measure. I am happy to have it used for any research or professional development purpose.

Natalie

Natalie Ciarocco, Ph.D.
Monmouth University
Department of Psychology
www.DiscoveringTheScientistWithin.com

From: Ema Janahi <Ema.Janahi@polytechnic.bh>
Sent: Friday, November 09, 2018 10:58 AM
To: Ciarocco, Natalie <nciarocc@monmouth.edu>
Subject: permission to use Employable Skills Self-Efficacy Inventory

Dear Dr Natalie,

I hope this email finds you well.

Let me first introduce myself, my name is Ema Janahi, I work as the Director of Academic Development of Bahrain Polytechnic and currently enrolled in a Doctorate programme in Education in University of Sheffield-UK. I am interested to study employability and self-efficacy from the perspective of graduates. Also intending to study the faculty members understanding regarding the practices that implemented at the public higher education institutions in Bahrain to enhance self-efficacy of their students. Now I have reached to the thesis part and I am looking for tools for my study. I have to say I was thrilled when I saw the Employable Skills Self-Efficacy Inventory. I think its so relevant to what I am intending to investigate.

Therefore, I am sending this email to seek permission to use the inventory. I might need to do minor modification to some of the words but up to this point I am not intending to change the tool. Currently I have sent the tool to my supervisor (Dr Anna Weighall) to evaluate its suitability.

I would be grateful if you granted me the permission. The result of my study will be communicated with you as well.

Regards

Ema

Appendix (5)

Self-efficacy and the development of undergraduates' employability: An approach for a Bahraini public higher education institution

Survey Participation Consent Form

Please tick the appropriate boxes	Yes	No
Taking Part in the Project		
I have read and understood the participant information sheet dated DD/MM/YYYY. (If you will answer No to this question please do not proceed with this consent form until you are fully aware of what your participation in the research will mean.)	☐	☐
I have been given the opportunity to ask questions about the study.	☐	☐
I agree to take part in the study. I understand that taking part in the research will include participating in answering the survey questions	☐	☐
I understand that my taking part is voluntary and that I can withdraw from the study at any time; I do not have to give any reasons for why I no longer want to take part and there will be no adverse consequences if I choose to withdraw.	☐	☐
How my information will be used during and after the project		
I understand my personal details such as name, phone number, address and email address etc. will not be revealed to people outside the research study.	☐	☐
So that the information you provide can be used legally by the researchers		
I agree to assign the copyright I hold in any materials generated as part of this project to The University of Sheffield.	☐	☐
Participation in interviews		
I am happy to be approached to be interviewed.	☐	☐
If your answer is YES kindly provide the following information: Phone number: Email: Convenient time to call:		

Name of participant Date

Project contact details for further information:

The lead researcher: Ema Janahi

Email: eajjanahi1@sheffield.ac.uk

Phone number: +97338891692

Supervisor: Dr Anna Weighall

Email: anna.weighall@sheffield.ac.uk

Phone number: +44 114 222 3633

Named Route Director for the Ed D in Higher Education: Dr Vassiliki Papatsiba

Email: v.papatsiba@sheffield.ac.uk

Chair of Ethics Review Panel: Dr David Hyatt

Email d.hyatt@sheffield.ac.uk

Phone number: (0114) 222 8126

Thank you

Appendix (6)

Survey Participant Information Sheet (Students)

Study Title

Self-efficacy and the development of undergraduates' employability: An approach for a Bahraini public higher education institution

Invitation

You are being invited to take part in a research project. The study is being conducted by Ema Janahi, Doctorate in Education candidate, Sheffield University, as part of her research for her thesis. Before you decide to take part, it is important you understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. You may ask the lead researcher for anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

What is the Research about?

This research aims to explore the perspectives of Bahrain Polytechnic undergraduate students and staff members regarding the sense of self-efficacy on the development of undergraduates' employability skills and the strategies implemented to enhance the students sense of self-efficacy towards the development of their employability skills.

Self-efficacy concept as suggested by many researchers speaks to the beliefs the people have about their abilities as opposed to their actual abilities. Self-efficacy defined as "People's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p 391).

Why have I been chosen?

You have been chosen to participate in this research as an undergraduate student enrolled in the institution and currently on his/her final year of study. By this time, you will have had experienced the academic journey and you have been exposed to all the services provided at the institution, this will help you to reflect while participating in this study.

What will happen if I take part?

You will be asked to complete a web-based Skills Self-Efficacy Survey which will take you around 15 minutes to complete. You will also be asked if you would like to participate in a follow-up interview session, but you can complete only the survey if you prefer.

If you choose take part in the follow up interview you will be contacted to arrange this. The interview session should last a maximum of 1 hour and will take place at the polytechnic.

Do I have to take part in this study?

You are free to decide whether you wish to take part or not. If you decided to participate in the survey you need to fill a consent form found in the link before completing the survey. You are free to withdraw from this study at any time and without giving reasons. Whether you choose to take part or not, this is not a means of assessing your performance and your participation will not affect any aspect of your studies.

What do I have to do and why?

You will be asked to fill the Skills Self-Efficacy Survey to measure your perception regarding your sense of self-efficacy on a number of identified employability skills categories in four domains including: communication, analytical inquiry, collaboration, and professional development. If you agree to be contacted, you may be invited to participate in an interview session where you will be asked to talk about your experience regarding your preparedness for the world of work, your employability skills and your beliefs about yourself in relation to those skills.

What are the benefits (if any) of taking part?

While there are no immediate benefits for you as a participant in the study, it is hoped that the findings will provide rich descriptions regarding the institutional practices that aims to improve the undergraduate students sense of self-efficacy during their studies. Moreover, the study will lead to a set of recommendations intended to improve those practices in the Bahraini higher education context.

What if something goes wrong?

If you have a concern about any aspect of this study or complaints about your participation, you can immediately contact the researcher. If you feel your complaint has not been handled to your satisfaction you can contact the supervisor of this study or the University of Sheffield's Named Route Director for the Ed D in Higher Education to take your complaint further (see below).

Will my taking part in this project be kept confidential?

All the information collected about you during the study will be kept strictly confidential. You will not be able to be identified or identifiable in any reports or publications. Any data collected from the web-based survey will be anonymized, digitally stored and retained by the researcher on a password protected computer. The data will only ever be used as part of the Doctorate research. Where appropriate, quotes will be used to illustrate research findings in the thesis, and in any subsequent publications.

Who is funding and organising the research?

The research is being funded by the researcher as part of her study.

Who has ethically reviewed the project?

This project has been ethically approved by Sheffield University - The School of Education's ethics review procedure. It has also been reviewed by the Research Committee at Bahrain Polytechnic.

Contacts for further information

The lead researcher: Ema Janahi

Email: eajjanahi1@sheffield.ac.uk

Phone number: +97338891692

Supervisor: Dr Anna Weighall

Email: anna.weighall@sheffield.ac.uk

Phone number: +44 114 222 3633

Named Route Director for the Ed D in Higher Education:

Dr Vassiliki Papatsiba,

Email: v.papatsiba@sheffield.ac.uk

Chair of Ethics Review Panel:

David Hyatt

Email d.hyatt@sheffield.ac.uk

Phone number: (0114) 222 8126

Thank you

Appendix (7)

Self-efficacy and the development of undergraduates' employability: An approach for a Bahraini public higher education institution

Interview Participation Consent Form

Please tick the appropriate boxes	Yes	No
Taking Part in the Project		
I have read and understood the participant information sheet dated DD/MM/YYYY. (If you will answer No to this question please do not proceed with this consent form until you are fully aware of what your participation in the research will mean.)	☐	☐
I have been given the opportunity to ask questions about the study.	☐	☐
I agree to take part in the study. I understand that taking part in the research will include participating in an interview session that will be audio recorded.	☐	☐
I understand that my taking part is voluntary and that I can withdraw from the study at any time; I do not have to give any reasons for why I no longer want to take part and there will be no adverse consequences if I choose to withdraw.	☐	☐
How my information will be used during and after the project		
I understand my personal details such as name, phone number, address and email address etc. will be removed while the recordings will be saved on a password protected computer and deleted after data analysis process completed.	☐	☐
I understand and agree that my words may be quoted in publications, reports, web pages, and other research outputs. I understand that I will not be named in these outputs unless I specifically request this.	☐	☐
So that the information you provide can be used legally by the researchers		
I agree to assign the copyright I hold in any materials generated as part of this project to The University of Sheffield.	☐	☐

Name of participant [printed] Signature Date

Name of Researcher [printed] Signature Date

Project contact details for further information:

The lead researcher: Ema Janahi

Email: eajjanahi1@sheffield.ac.uk

Phone number: +97338891692

Supervisor: Dr Anna Weighall

Email: anna.weighall@sheffield.ac.uk

Phone number: +44 114 222 3633

The template of this consent form has been approved by the University of Sheffield Research Ethics Committee and is available to view here: https://www.sheffield.ac.uk/rs/ethicsandintegrity/ethicspolicy/further-guidance/homepage

Named Route Director for the Ed D in Higher Education: Dr Vassiliki Papatsiba,

Email: v.papatsiba@sheffield.ac.uk

Chair of Ethics Review Panel: Dr David Hyatt

Email d.hyatt@sheffield.ac.uk

Phone number: (0114) 222 8126

Thank you

The template of this consent form has been approved by the University of Sheffield Research Ethics Committee and is available to view here: https://www.sheffield.ac.uk/rs/ethicsandintegrity/ethicspolicy/further-guidance/homepage

Appendix (8)

Interview Participant Information Sheet (Students)

Study Title

Self-efficacy and the development of undergraduates' employability: An approach for a Bahraini public higher education institution

Invitation

You are being invited to take part in a research project. The study is being conducted by Ema Janahi, Doctorate in Education candidate, Sheffield University, as part of her research for her thesis. Before you decide to take part, it is important you understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. You may ask the lead researcher if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

What is the Research about?

This research aims to explore the perspectives of Bahrain Polytechnic undergraduate students and staff members regarding the sense of self-efficacy on the development of undergraduates' employability skills and the strategies implemented to enhance the students sense of self-efficacy towards the development of their employability skills.

Self-efficacy concept as suggested by many researchers speaks to the beliefs the people have about their abilities as opposed to their actual abilities. Self-efficacy defined as "People's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p 391).

Why have I been chosen?

You have been chosen to participate in this research as an undergraduate student enrolled in the institution and currently on his/her final year of study. By this time, you will have had experienced the academic journey and you have been exposed to all the services provided at the institution, this will help you to reflect while participating in this study.

What will happen if I take part?

If you agreed to take part in the follow up interview after completing a web-based Skills Self-Efficacy Survey, an interview will be arranged for you in the polytechnic that will last a maximum of 1 hour.

Do I have to take part in this study?

You are free to decide whether you wish to take part or not. If you decided to participate in the interview session you will be asked to sign two consent forms, one is for you to keep and the other is for the records. You are free to withdraw from this study at any time and without giving reasons. Whether you choose to take part or not, this is not a means of assessing your performance and your participation will not affect any aspect of your studies.

What do I have to do and why?

You will be invited to participate in an interview session where you will be asked to talk about your experience regarding your preparedness for the world of work, your employability skills and your beliefs about yourself in relation to those skills. You will be also asked about the adopted strategies by the institution and if those were appropriate to enhance your beliefs about yourself regarding your ability to perform employability skills. Moreover, you will be asked to talk about your ability to showcase the employability skills and the things that the institution would have done better to enhance your beliefs about yourself.

What are the benefits (if any) of taking part?

While there are no immediate benefits for you as a participant in the study, it is hoped that the findings will provide rich descriptions regarding the institutional practices that aims to improve the undergraduate students sense of self-efficacy during their studies. Moreover, the study will lead to a set of recommendations intended to improve those practices in the Bahraini higher education context.

What if something goes wrong?

If you have a concern about any aspect of this study or complaints about your participation, you can immediately contact the researcher. If you feel your complaint has not been handled to your satisfaction you can contact the supervisor of this study or the University of Sheffield's Named Route Director for the Ed D in Higher Education to take your complaint further (see below).

Will my taking part in this project be kept confidential?

All the information collected about you during the study will be kept strictly confidential. You will not be able to be identified or identifiable in any reports or publications. Any data collected from the interview sessions will be transcribed, anonymized, digitally stored and retained by the researcher on a password protected computer. The audio recordings made of the sessions will be deleted after the completion of the data analysis process and will be used only for data analysis purpose. No other use of it will be made without your written permission, and no one outside of the research team will be allowed access to the original recordings. All personal information from the sessions will be removed or changed. The data will only be accessed by the researcher and her Supervisors. The data will only ever be used as part of the Doctorate research. Where appropriate, quotes will be used to illustrate research findings in the thesis, and in any subsequent publications.

Who is funding and organising the research?

The research is being funded by the researcher as part of her study.

Who has ethically reviewed the project?

This project has been ethically approved by Sheffield University - The School of Education's ethics review procedure. It has also been reviewed by the Research Committee at Bahrain Polytechnic.

Contacts for further information

The lead researcher: Ema Janahi

Email: eajjanahi1@sheffield.ac.uk

Phone number: +97338891692

Supervisor: Dr Anna Weighall

Email: anna.weighall@sheffield.ac.uk

Phone number: +44 114 222 3633

Named Route Director for the Ed D in Higher Education: Dr Vassiliki Papatsiba,

Email: v.papatsiba@sheffield.ac.uk

Chair of Ethics Review Panel: David Hyatt

Email d.hyatt@sheffield.ac.uk

Phone number: (0114) 222 8126

Thank you

Appendix (9)

Self-efficacy and the development of undergraduates' employability: An approach for a Bahraini public higher education institution

Questions (Students)

1. Do you think that the institution prepared you for the world of work?
2. Think about your communication skills when you started here at the institution. Tell us about your beliefs regarding your communication skills now.
3. Think about your skills related to working collaboratively in a group when you started here at the institution. Tell us about your beliefs regarding your skills now.
4. Think about your analytical skills when you started here at the institution. Tell us about your beliefs regarding your analytical skills now.
5. Tell me about your beliefs regarding your capabilities in identifying your skill gaps to develop yourself professionally?
6. How did the institution help you to enhance these beliefs?
7. Do you think the institution promoted these beliefs appropriately? How?
    a. Do you feel able to showcase these skills to prospective employers? What made you think that?
    b. Do you feel the institution supported you in being able to showcase the skills? How?
    c. What did the institution do to help you be able to showcase your skills?
    d. What did the institution missed to implement in order to enhance these beliefs?

Appendix (10)

Interview Participant Information Sheet (Staff members)

Study Title

Self-efficacy and the development of undergraduates' employability: An approach for a Bahraini public higher education institution

Invitation

You are being invited to take part in a research project. The study is being conducted by Ema Janahi, Doctorate in Education candidate, Sheffield University, as part of her research for her thesis. Before you decide to take part, it is important you understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. You can ask the lead researcher anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

What is the Research about?

This research aims to explore the perspectives of Bahrain Polytechnic undergraduate students and staff members regarding the sense of self-efficacy on the development of undergraduates' employability skills and the strategies implemented to enhance the students' sense of self-efficacy towards the development of their employability skills.

Self-efficacy concept as suggested by many researchers speaks to the beliefs the people have about their abilities as opposed to their actual abilities. Self-efficacy defined as "People's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p 391).

Why have I been chosen?

You have been chosen to participate in this research because of your role as a staff member in the institution.

What will happen if I take part?

You will be asked to participate in an interview session. The session will last a maximum of 1 hour and will take place at the polytechnic.

Do I have to take part in this study?

You are free to decide whether you wish to take part or not. If you decide to take part in the interview session, you will be asked to sign two consent forms, one is for you to keep, and the other is for the records. You are free to withdraw from this session at any time and without giving reasons. Whether you choose to take part or not will not affect your position within the university neither will affect your performance appraisal or will have any kind of impact on your future career development. Your responses will not be shared with your line manager or other members of the university.

What do I have to do?

At the interview session, you will be asked to talk about the role of the institution in preparing the students for the world of work, the strategies in place to enhance students' beliefs about their skills, and if those strategies were promoted appropriately. Moreover, you will be asked about your thoughts regarding the students' ability in showcasing their skills in future to prospective employers, and any other strategies that should be adopted by the institution to promote students' beliefs regarding themselves. If you choose to take part, you are free to choose not to answer specific questions during the interview.

What are the benefits (if any) of taking part?

While there are no immediate benefits for you as a participant in the study, it is hoped that the findings will provide rich descriptions regarding the institutional practices that aims to improve the undergraduate students sense of self-efficacy during their studies. Moreover, the study will lead to a set of recommendations intended to improve those practices in the Bahraini higher education context.

What if something goes wrong?

If you have a concern about any aspect of this study or complaints about your participation, you can immediately contact the researcher. If you feel your complaint has not been handled to your satisfaction, you can contact the supervisor of this study or the University of Sheffield's Named Route Director for the Ed D in Higher Education to take your complaint further (see below).

Will my taking part in this project be kept confidential?

All the information collected about you during the study will be kept strictly confidential. You will not be able to be identified or identifiable in any reports or publications. Any data collected from the interview sessions will be transcribed, digitally stored, and retained by the researcher on a password protected computer. The audio recordings made of the sessions will be deleted after the completion of the data analysis process and will be used only for data analysis purpose. No other use of it will be made without your written permission, and no one outside of the research team will be allowed access to the original recordings. All personal information from the sessions will be removed or changed. The data will only be accessed by the researcher and the supervisors. The data will only ever be used as part of the Doctorate

research and publications arising from it. Where appropriate, quotes will be used to illustrate research findings in the thesis, and in any subsequent publications.

Who is funding and organising the research?

The research is being funded by the researcher as part of her study.

Who has ethically reviewed the project?

This project has been ethically approved by Sheffield University - The School of Education's ethics review procedure. As well as the Research Committee at Bahrain Polytechnic.

Contacts for further information

The lead researcher: Ema Janahi

Email: ea@janahi1@sheffield.ac.uk

Phone number: +97338891692

Supervisor: Dr Anna Weighall

Email: anna.weighall@sheffield.ac.uk

Phone number: +44 114 222 3633

Named Route Director for the Ed D in Higher Education: Dr Vassiliki Papatsiba,

Email: v.papatsiba@sheffield.ac.uk

Chair of Ethics Review Panel: David Hyatt

Email d.hyatt@sheffield.ac.uk

Phone number: (0114) 222 8126

Thank you

Appendix (11)

Self-efficacy and the development of undergraduates' employability: An approach for a Bahraini public higher education institution

Questions (Staff)

1. Do you think that the institution is preparing the students for the world of work?
2. How does the institution help the students to enhance their beliefs about their skills?
3. Do you think the institution promoted these beliefs appropriately? How?
4. Do you think the students would be able to showcase their skills to prospective employers? What made you think that?
5. Do you feel the institution supported the students in being able to showcase their skills? How?
6. What else should the institution do to promote students' beliefs regarding themselves?

Appendix (12)

Self-efficacy and the development of undergraduates' employability: An approach for a Bahraini public higher education institution

Interview Script (Staff)

Good morning and welcome to the mock interview.

First, I would like to introduce myself, my name is Ema Janahi, a Doctor of Education Student in Sheffield University, currently I am in my 3rd year of enrolment and at the stage of data collection. My scope of study is related to higher education focusing on self-efficacy and employability.

I would really like to thank you for participating in this study, and I hope you had a through read through the information sheet.

Before moving on to sign the consent form let me highlight some points for you.

(read for the information sheet).

As described in the information sheet you will be asked to talk about the role of the institution in preparing the students for the world of work, the strategies in place to enhance students' beliefs about their skills, and if those strategies were promoted appropriately. Moreover, you will be asked about your thoughts regarding the students' ability in showcasing their skills in future to prospective employers, and any other strategies that should be adopted by the institution to promote students' beliefs regarding themselves.

Can we proceed to signing the consent form (2 forms).

Questions		Comments	Transcript
1.	Do you think that the institution is preparing the students for the world of work?		
2.	How does the institution help the students to enhance their beliefs about their skills?		
3.	Do you think the institution promoted these beliefs appropriately? How?		

4.	Do you think the students would be able to showcase their skills to prospective employers? What made you think that?		
5.	Do you feel the institution supported the students in being able to showcase their skills? How?		
6.	What else should the institution do to promote students beliefs regarding themselves?		

Unstructured questions	Comments	Transcript

Thank you for your time and efforts

Appendix (13)

Self-efficacy and the development of undergraduates' employability: An approach for a Bahraini public higher education institution

Interview Script Students

Good morning and welcome to the mock interview.

First, I would like to introduce myself, my name is Ema Janahi, a Doctor of Education Student in Sheffield University, currently I am in my 3rd year of enrolment and at the stage of data collection. My scope of study is related to higher education focusing on self-efficacy and employability.

I would really like to thank you for participating in this study, and I hope you had a through read through the information sheet.

Before moving on to sign the consent form let me highlight some points for you.

(read for the information sheet).

Can we proceed to signing the consent form (2 forms).

As described in the information sheet I will be asking questions to talk about your experience regarding your preparedness for the world of work, your employability skills and your beliefs about yourself in relation to those skills. You will be also asked about the adopted strategies by the institution and if those were appropriate to enhance your beliefs about yourself regarding your ability to perform employability skills. Moreover, you will be asked to talk about your ability to showcase the employability skills and the things that the institution would have done better to enhance your beliefs about yourself.

I will be taking notes and I will be recording the interview as you know.

Let us start with the questions

	Questions	Comments	Transcribe
1.	Do you think that the institution prepared you for the world of work?		
2.	Think about your communication skills when you started here at the institution. Tell us about your beliefs		

	regarding your communication skills now.		
3.	Think about your skills related to working collaboratively in a group when you started here at the institution. Tell us about your beliefs regarding your skills now.		
4.	Think about your analytical skills when you started here at the institution. Tell us about your beliefs regarding your analytical skills now.		
5.	Tell me about your beliefs regarding your capabilities in identifying your skill gaps to develop yourself professionally?		
6.	How did the institution help you to enhance these beliefs?		
Follow-up questions			
7.	What about the following, do you think that PBL approach in teaching and learning		

	enhance your beliefs?		
8.	What about the final year project?		
9.	What about Career Employment Centre?		
10.	What about extra-curricular activities?		
11.	What about the use of reflection practice at classrooms?		
12.	What about academic advising?		
13.	What about BPSIC and BVIC?		
14.	Do you think the institution promoted these beliefs appropriately? How?		
a.	Do you feel able to showcase these skills to prospective employers? What made you think that?		
b.	Do you feel the institution supported you in being able to showcase the skills? How?		
c.	What did the institution do to help		

you be able to showcase your skills?		
d. What did the institution missed to implement in order to enhance these beliefs?		
e. Do you feel the institution supported you in being able to showcase the skills? How?		

Thank you for your time and efforts

Appendix (14)

SCORING KEY *(NOTE: "r" indicates the item rating should first be reverse-coded)*

Communication Skills

Writing Skills Subscore: _____ (Take mean of 5r, 8, 14r, & 27)

Speaking Skills Subscore: _____ (Take mean of Items 3, 9r, 24r, & 49)

Reading Skills Subscore: _____ (Take mean of Items 16, 19, 35, & 48r)

Listening Skills Subscore: _____ (Take mean of Items 18r, 29r, 33, & 39)

Overall Communication Skills Score: _____
(Take mean of writing skills, speaking skills, reading, and listening skills items)

Analytical Inquiry Skills

Research Skills Subscore: _____ (Take mean of Items 6, 26, 28r, 44, & 47)

Information Literacy Skills Subscore: _____ (Take mean of Items 12r, 13r, 31, & 40)

Overall Analytical Inquiry Skills Score: _____
(Take mean of research skills and information literacy skills items)

Collaboration Skills

Working in Groups Skills Subscore: _____ (Take mean of Items 1, 25, 43r, 45r, & 50)

Leadership Skills Subscore: _____ (Take mean of Items 2, 10, 30, 34, & 36)

Overall Collaboration Skills Score: _____
(Take mean of working in groups skills and leadership skills items)

Professional Development Skills

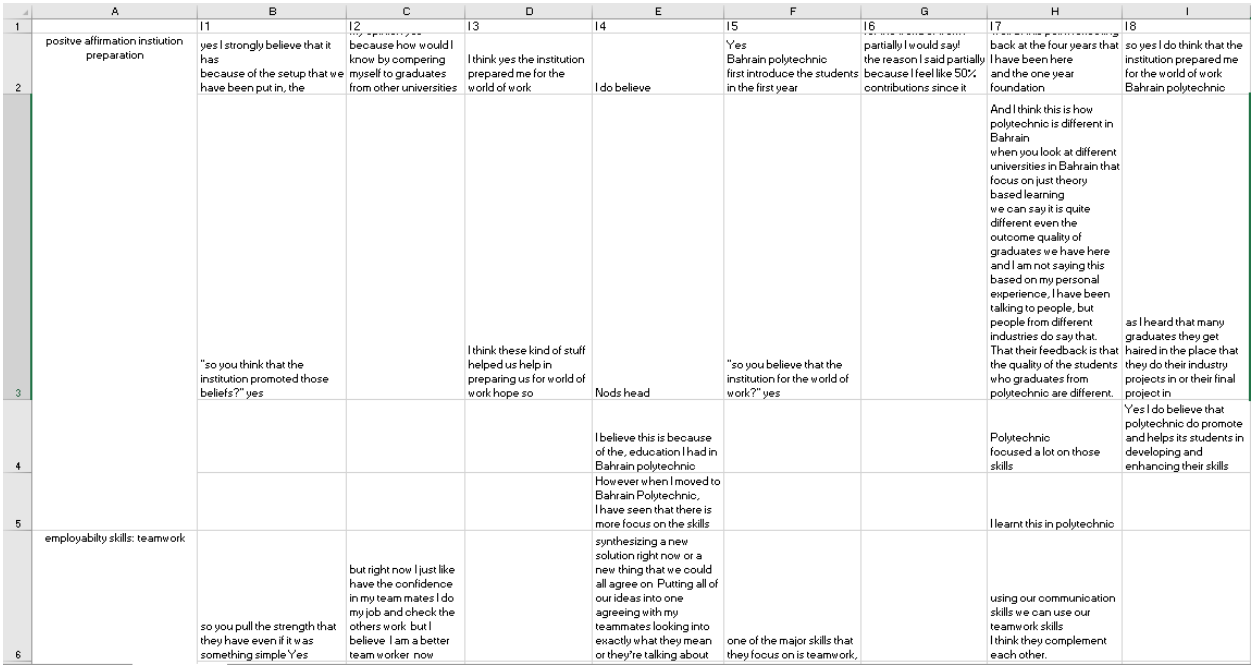
Self-Management Skills Subscore: _____ (Take mean of Items 21, 22, 41r, & 42)

Professional Skills Subscore: _____ (Take mean of Items 7r, 11r, 15r, 17r, 23, 38r, & 46r)

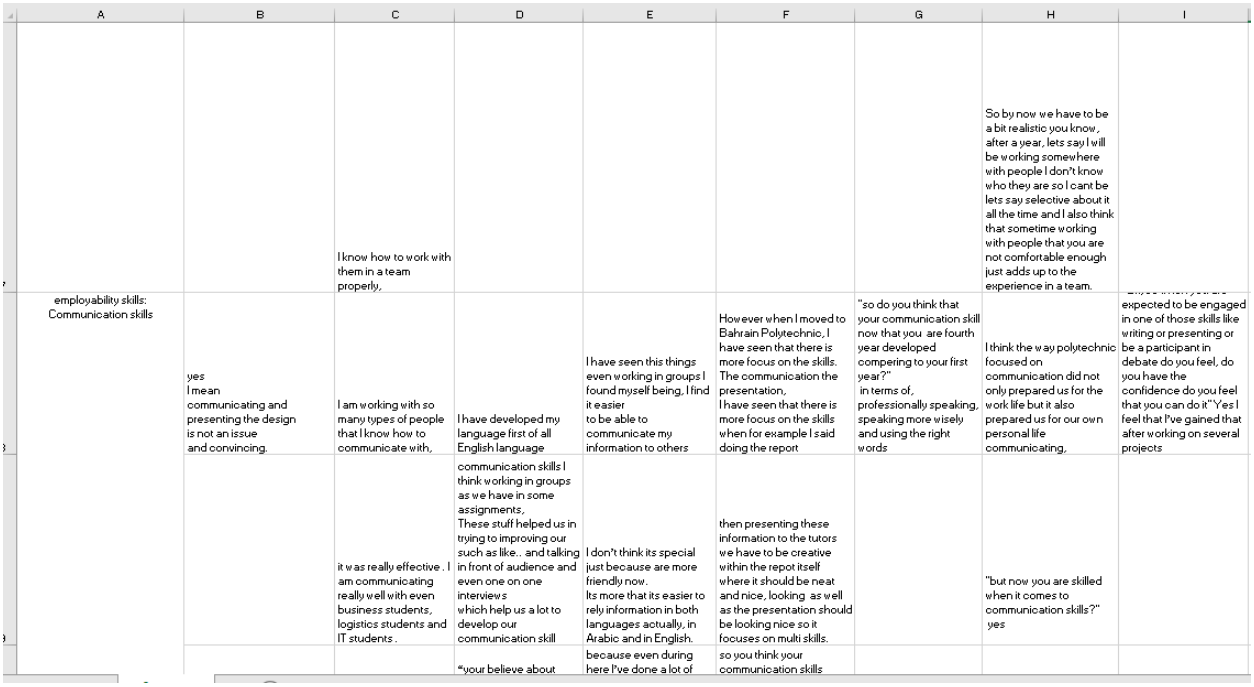
Technology Skills Subscore: _____ (Take mean of Items 4r, 20, 32, 37, & 51)

Overall Professional Development Skills Score: _____
(Take mean of working in self-management skills, professional skills, and technology skills items)

Appendix (15)



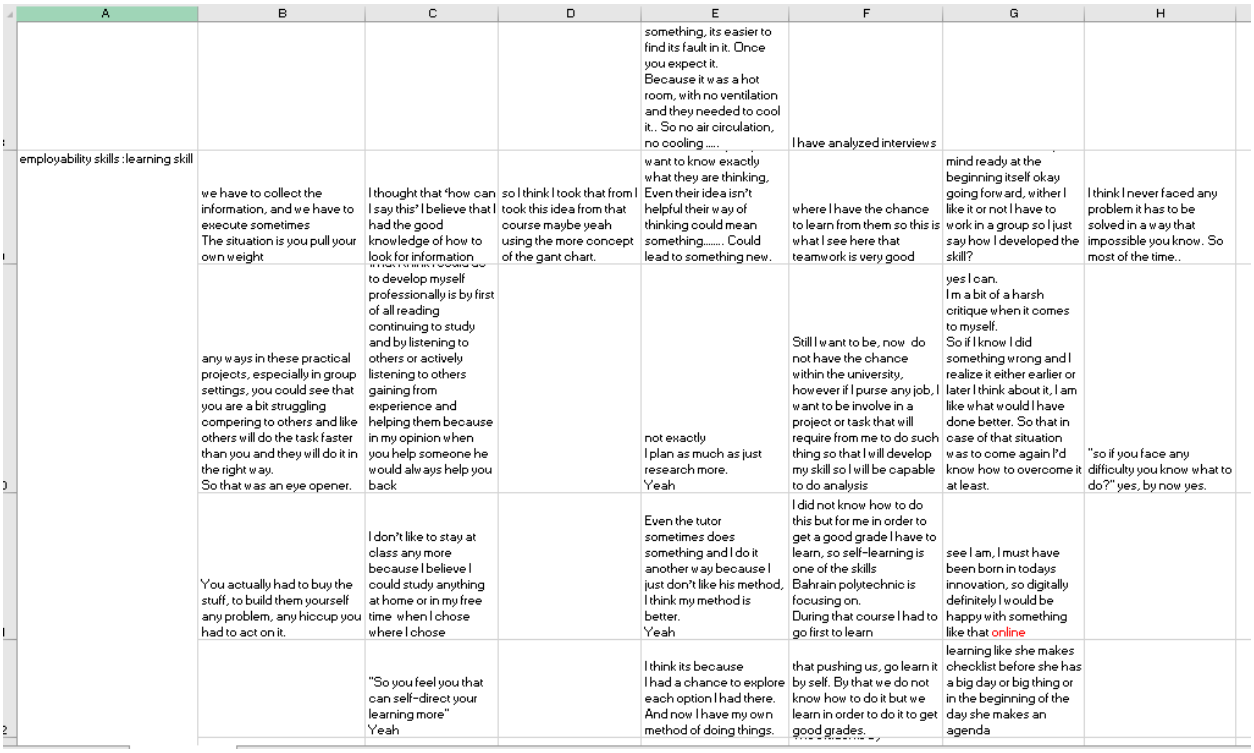
	A	B	C	D	E	F	G	H	I
1		I1	I2	I3	I4	I5	I6	I7	I8
2	positve affirmation instiution preparation	yes I strongly believe that it has because of the setup that we have been put in, the	because how would I know by compering myself to graduates from other universities	I think yes the institution prepared me for the world of work	I do believe	Yes Bahrain polytechnic first introduce the students in the first year	partially I would say! the reason I said partially because I feel like 50% contributions since it	back at the four years that I have been here and the one year foundation	so yes I do think that the institution prepared me for the world of work Bahrain polytechnic
3		"so you think that the institution promoted those beliefs?" yes		I think these kind of stuff helped us help in preparing us for world of work hope so	Nods head	"so you believe that the institution for the world of work?" yes		And I think this is how polytechnic is different in Bahrain when you look at different universities in Bahrain that focus on just theory based learning we can say it is quite different even the outcome quality of graduates we have here and I am not saying this based on my personal experience, I have been talking to people, but people from different industries do say that. That their feedback is that the quality of the students who graduates from polytechnic are different.	as I heard that many graduates they get haired in the place that they do their industry projects in or their final project in
4					I believe this is because of the, education I had in Bahrain polytechnic			Polytechnic focused a lot on those skills	Yes I do believe that polytechnic do promote and helps its students in developing and enhancing their skills
5					However when I moved to Bahrain Polytechnic, I have seen that there is more focus on the skills			I learnt this in polytechnic	
6	employabilty skills: teamwork	so you pull the strength that they have even if it was something simple Yes	but right now I just like have the confidence in my team mates I do my job and check the others work but I believe I am a better team worker now		synthesizing a new solution right now or a new thing that we could all agree on. Putting all of our ideas into one agreeing with my teammates looking into exactly what they mean or they're talking about	one of the major skills that they focus on is teamwork,		using our communication skills we can use our teamwork skills I think they complement each other.	



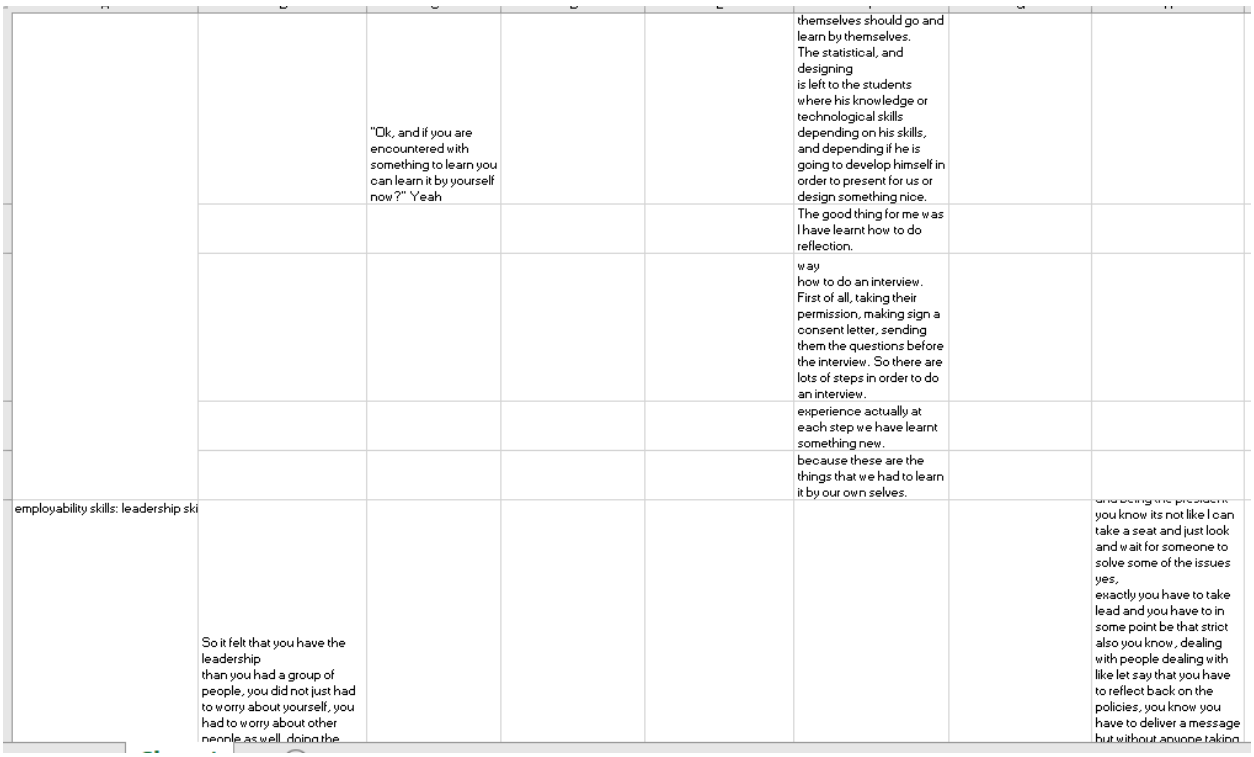
	A	B	C	D	E	F	G	H	I
			I know how to work with them in a team properly,					So by now we have to be a bit realistic you know, after a year, lets say I will be working somewhere with people I don't know who they are so I cant be lets say selective about it all the time and I also think that sometime working with people that you are not comfortable enough just adds up to the experience in a team.	
	employability skills: Communication skills	yes I mean communicating and presenting the design is not an issue and convincing.	I am working with so many types of people that I know how to communicate with,	I have developed my language first of all English language	I have seen this things even working in groups I found myself being, I find it easier to be able to communicate my information to others	However when I moved to Bahrain Polytechnic, I have seen that there is more focus on the skills. The communication the presentation, I have seen that there is more focus on the skills when for example I said doing the report	"so do you think that your communication skill now that you are fourth year developed compering to your first year?" in terms of, professionally speaking, speaking more wisely and using the right words	I think the way polytechnic focused on communication did not only prepared us for the work life but it also prepared us for our own personal life communicating,	expected to be engaged in one of those skills like writing or presenting or be a participant in debate do you feel, do you have the confidence do you feel that you can do it" Yes I feel that I've gained that after working on several projects
			it was really effective . I am communicating really well with even business students, logistics students and IT students .	communication skills I think working in groups as we have in some assignments, These stuff helped us in trying to improving our such as like.. and talking in front of audience and even one on one interviews which help us a lot to develop our communication skill	I don't think its special just because are more friendly now. Its more that its easier to rely information in both languages actually, in Arabic and in English.	then presenting these information to the tutors we have to be creative within the repot itself where it should be neat and nice, looking as well as the presentation should be looking nice so it focuses on multi skills.		"but now you are skilled when it comes to communication skills?" yes	
				"your believe about	because even during here I've done a lot of	so you think your communication skills			

			"your believe about yourself in regard to communication skills is strong" yes	because even during here I've done a lot of projects, But not Infront of anybody unfamiliar to me (-ve)	so you think your communication skills improved after.. "after joining the university yes,"			
			"and this helped your communication?" Yeah, because I am the captain of the team, so I have to help the team help the coach, and actually we got a good ranking		trade quest it developed my presentation skills, I had the chance to present in front of students from other universities and present in front of judges coming from different cooperation within Bahrain.			
			I don't think so, even though I have not actually did that here like debating because there is a course we have that its called debate and but I didn't took that but I think I am good Yes, I think		the feedback in which it will help us later on in enhancing our level of writing or presenting or presenting the data and so on,			
Employability skills: analytical skills	Yes well, when it comes to analysis I think I have a notional aptitude for it	Actually I am doing it right now for my senior project I thought it would be much harder		Dealing with problems has become a routine to me. So, solving them has been Yeah..	we have critical analysis, problem solving, fundamental analysis, financial analysis then presenting these information	So for the past one and a half year, whenever we'd recommend any solution to the client it has been primary research has been done about the target market from day one. And then we look at what competitors done so we do competitor analysis and then we look at global best practices and then we	Not only analyzing data but also thinking critically. Analyzing data critically.	"And, and if you have been tasked to do that, do you feel comfortable that you have the skills to manage it?" Yes, yes I can do that.
				Make a solution out of anything we have, out of what we have, some expensive tool we had to	I had to analysis a real state or you can say an a apartment and do financial analysis and then give my opinion wither this apartment is a profitable		"so if you were asked to evaluate and judge based	

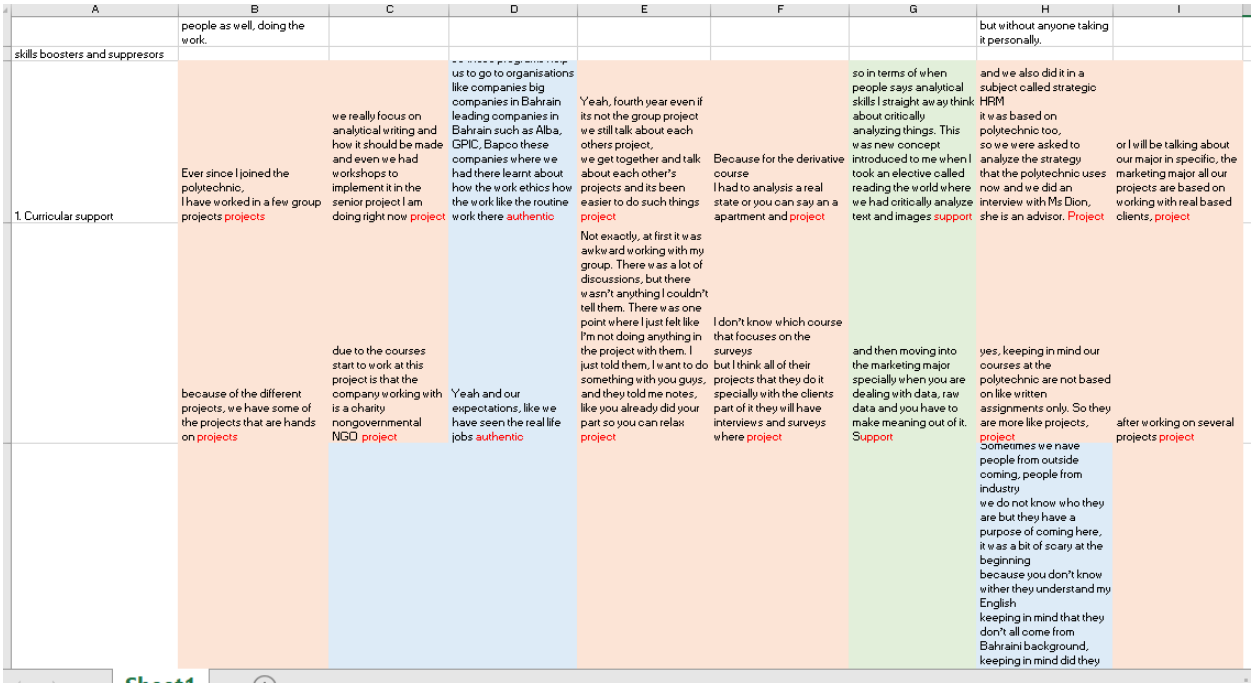
	"so you have the process of intellectual analysis?" yes			buy from elsewhere and bring it here. We had to make due with what we have	investment or not based on my financial analysis and based on the survey that we have done.	so in that terms yes.	on guidelines, international practices, you are able?" yes
	Yes because kind of this template in most of the situations, you get what is the benefit, what's in it for the company and then you break down the problem and you work from there.			synthesizing a new solution right now or a new thing that we could all agree on Putting all of our ideas into one agreeing with my teammates looking into exactly what they mean or they're talking about	and marketing students within Bahrain they focus a lot on the surveys and analyzing surveys. They have this part. For me I think that the statistical analysis, I believe that it is much better in the marketing major	"so you do not take something from somewhere without going through the whole process." if there is no evidence, I do not think we will recommend it.	
				I do think it has improved significantly	they have to analyze it. The survey they have to collect 300 respondents however when it was for us in the industry project,	in that sense yes, I thought you were talking about data analysis.	
				AND this is what I did during this year project, I told you there was a lot of trouble, one of them was that my project was cancelled, so I had to find a new project by myself. And I did that; find a new project and I got approval from them. I told them what the problem they have and they told me that's its worth to fix it. So I went ahead with it. Finding that problem required some analytical skills, that wasn't obvious .. And they weren't exactly, doing anything about it, so they weren't	however now during industrial project I have to analyze the survey or analyze the interviews		
				Yeah, Yeah, they weren't addressing it and its ..... it wasn't easy to find because there was... once you look at			



A	B	C	D	E	F	G	H
				something, its easier to find its fault in it. Once you expect it. Because it was a hot room, with no ventilation and they needed to cool it.. So no air circulation, no cooling	I have analyzed interviews		
employability skills :learning skill	we have to collect the information, and we have to execute sometimes The situation is you pull your own weight	I thought that 'how can I say this' I believe that I had the good knowledge of how to look for information	so I think I took that from I took this idea from that course maybe yeah using the more concept of the gant chart.	want to know exactly what they are thinking, Even their idea isn't helpful their way of thinking could mean something..... Could lead to something new.	where I have the chance to learn from them so this is what I see here that teamwork is very good	mind ready at the beginning itself okay going forward, wither I like it or not I have to work in a group so I just say how I developed the skill?	I think I never faced any problem it has to be solved in a way that impossible you know. So most of the time..
	any ways in these practical projects, especially in group settings, you could see that you are a bit struggling compering to others and like others will do the task faster than you and they will do it in the right way. So that was an eye opener.	to develop myself professionally is by first of all reading continuing to study and by listening to others or actively listening to others gaining from experience and helping them because in my opinion when you help someone he would always help you back		not exactly I plan as much as just research more. Yeah	Still I want to be, now do not have the chance within the university, however if I purse any job, I want to be involve in a project or task that will require from me to do such thing so that I will develop my skill so I will be capable to do analysis	yes I can. I m a bit of a harsh critique when it comes to myself. So if I know I did something wrong and I realize it either earlier or later I think about it, I am like what would I have done better. So that in case of that situation was to come again I'd know how to overcome it at least.	"so if you face any difficulty you know what to do?" yes, by now yes.
	You actually had to buy the stuff, to build them yourself any problem, any hiccup you had to act on it.	I don't like to stay at class any more because I believe I could study anything at home or in my free time when I chose where I chose		Even the tutor sometimes does something and I do it another way because I just don't like his method, I think my method is better. Yeah	I did not know how to do this but for me in order to get a good grade I have to learn, so self-learning is one of the skills Bahrain polytechnic is focusing on. During that course I had to go first to learn	see I am, I must have been born in todays innovation, so digitally definitely I would be happy with something like that online	
		"So you feel you that can self-direct your learning more" Yeah		I think its because I had a chance to explore each option I had there. And now I have my own method of doing things.	that pushing us, go learn it by self. By that we do not know how to do it but we learn in order to do it to get good grades.	learning like she makes checklist before she has a big day or big thing or in the beginning of the day she makes an agenda	

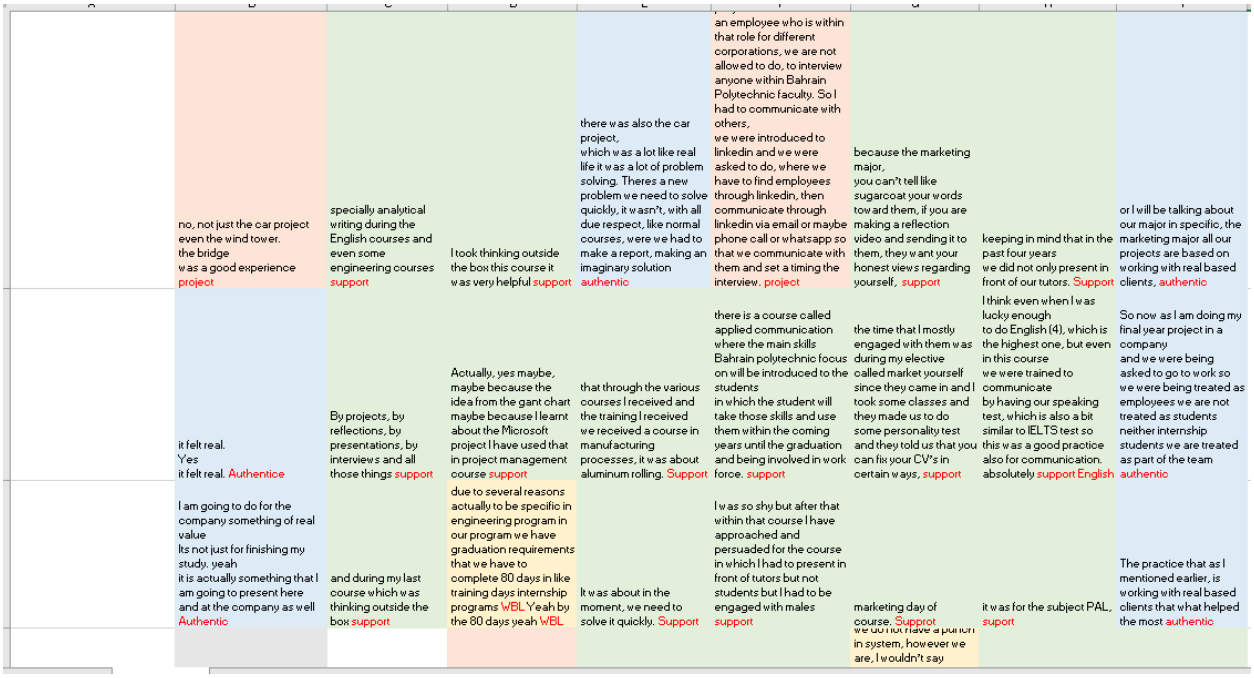


					themselves should go and learn by themselves. The statistical, and designing is left to the students where his knowledge or technological skills depending on his skills, and depending if he is going to develop himself in order to present for us or design something nice.		
		"Ok, and if you are encountered with something to learn you can learn it by yourself now?" Yeah					
					The good thing for me was I have learnt how to do reflection.		
					way how to do an interview. First of all, taking their permission, making sign a consent letter, sending them the questions before the interview. So there are lots of steps in order to do an interview.		
					experience actually at each step we have learnt something new.		
					because these are the things that we had to learn it by our own selves.		
employability skills: leadership ski	So it felt that you have the leadership than you had a group of people, you did not just had to worry about yourself, you had to worry about other people as well, doing the						you know its not like I can take a seat and just look and wait for someone to solve some of the issues yes, exactly you have to take lead and you have to in some point be that strict also you know, dealing with people dealing with like let say that you have to reflect back on the policies, you know you have to deliver a message but without anyone taking



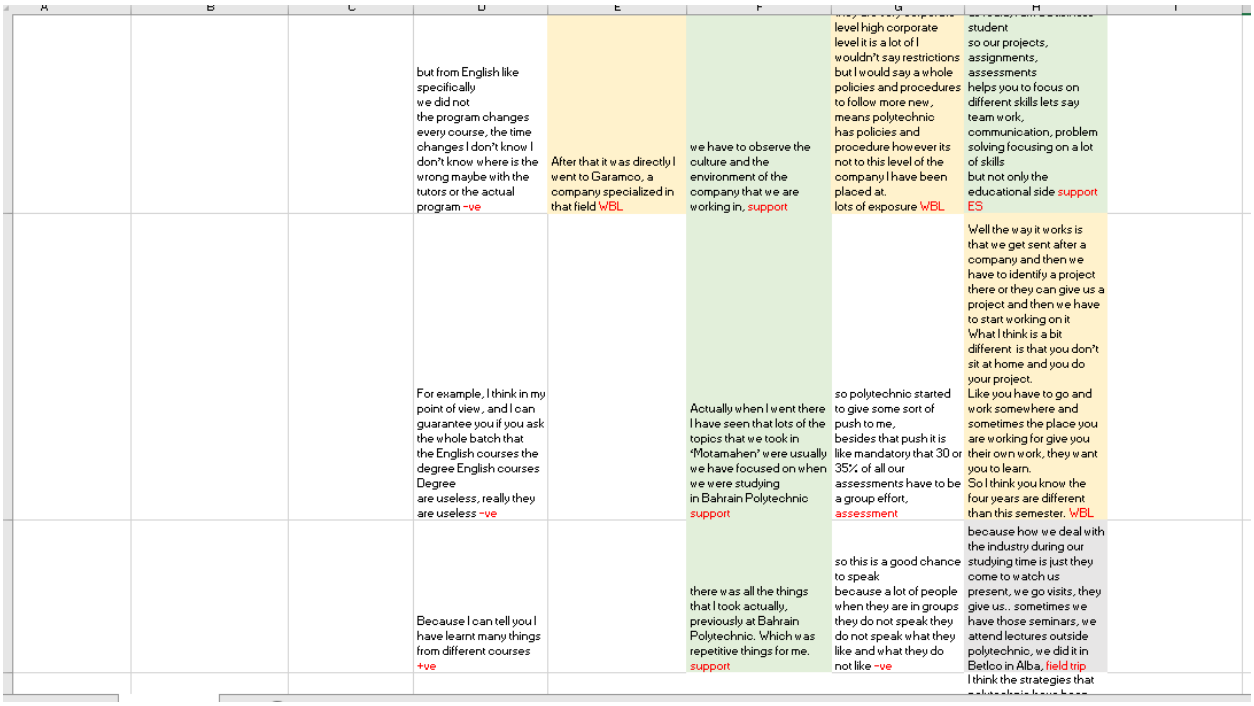
	A	B	C	D	E	F	G	H	I
		people as well, doing the work.						but without anyone taking it personally.	
	skills boosters and suppresors								
	1. Curricular support	Ever since I joined the polytechnic, I have worked in a few group projects projects	we really focus on analytical writing and how it should be made and even we had workshops to implement it in the senior project I am doing right now project	us to go to organisations like companies big companies in Bahrain leading companies in Bahrain such as Alba, GPIC, Bapco these companies where we had there learnt about how the work ethics how the work like the routine work there authentic	Yeah, fourth year even if its not the group project we still talk about each others project, we get together and talk about each other's projects and its been easier to do such things project	Because for the derivative course I had to analysis a real state or you can say an a apartment and project	so in terms of when people says analytical skills I straight away think about critically analyzing things. This was new concept introduced to me when I took an elective called reading the world where we had critically analyze text and images support	and we also did it in a subject called strategic HRM it was based on polytechnic too, so we were asked to analyze the strategy that the polytechnic uses now and we did an interview with Ms Dion, she is an advisor. Project	or I will be talking about our major in specific, the marketing major all our projects are based on working with real based clients, project
					Not exactly, at first it was awkward working with my group. There was a lot of discussions, but there wasn't anything I couldn't tell them. There was one point where I just felt like I'm not doing anything in the project with them. I just told them, I want to do something with you guys, and they told me notes, like you already did your part so you can relax project	I don't know which course that focuses on the surveys but I think all of their projects that they do it specially with the clients part of it they will have interviews and surveys where project			
		because of the different projects, we have some of the projects that are hands on projects	due to the courses start to work at this project is that the company working with is a charity nongovernmental NGO project	Yeah and our expectations, like we have seen the real life jobs authentic			and then moving into the marketing major specially when you are dealing with data, raw data and you have to make meaning out of it. Support	yes, keeping in mind our courses at the polytechnic are not based on like written assignments only. So they are more like projects, project	after working on several projects project
								Sometimes we have people from outside coming, people from industry we do not know who they are but they have a purpose of coming here, it was a bit of scary at the beginning because you don't know wither they understand my English keeping in mind that they don't all come from Bahraini background, keeping in mind did they	

	A	B	C	D	E	F	G	H	I
		I think the 3rd year car project was the highlight of the study. Project	because after all they are the ones with experience and they are the clients so I have learnt many things from the co-staff authentic	I think like we had in some courses we had to do some interviews for example like mock interviews like similar to like job interviews, authentic	Yeah, fourth year even if its not the group project we still talk about each others project, we get together and talk about each other's projects and its been easier to do such things project	yeah, while doing market yourself course, we were hired to do website page. It is e-portfolio, it is same as CV but within a website page, project	in the context you are speaking that is most of my assignments are exactly the way you are talking about support	understand my English did they actually get what I am saying, my body language ok, do they what I am trying to say at least so presenting in front of people from different industries also helped me authentic	and after joining polytechnic most of our projects are grouped-based project
		yes and we had to switch roles being the project managers of the car project Project	so basically like its both good work and learning the design and dealing with venders dealing with standards and with the important stuff in one project authentic	we have like in some courses we have to do some presentations, and interviews These stuff helped us in trying to improving our support	Yes, this is what I did in the course that is called Thinking outside the box project! It was a new group. Project	but the university is giving us projects project	before we go to the next question, is it like the elective Thinking Outside the Box where you are put into and you do physical activity.. so it is like Business Law so it is basically most of the, I will say most of the group assessment kind because they will always came with a scenario. Imagine you are the manager of so and so.. support	they are more like we get real life companies, we get real life clients so it is basically we deal with real stuff its not just imaginary stuff. I think this helps also building those skills. Authentic	So now as I am doing my final year project in a company and we were being asked to go to work so we were being treated as employees we are not treated as students neither internship students we are treated as part of the team project
		because we have done a few presentations here. not in front of employers, not yet at least, we gonna do it this year But we had to convince people of our designs and we had a couple of designs we had to step up and compete. Our group had to compete with other groups so we can chose the design.. Project	because actually this is what I learnt in the last course support	these kind of stuff help us to develop our communication skills. Support	I saw a lot of things that I studied In Bahrain Polytechnic applied there authentic	because within each we have to do, part of our project should be the financial analysis, and the communication after all, presenting the data and research and report as well. project for me in Banking and Finance major project and then based on that with your own desire that you want, maybe you are focusing on specific role or specific job you have to interview	yet it had taught me a bit, means part and pieces, polytechnic had taught me support	than when we came here, like having a group basically, being in a group for your assignment, if you do not know how to communicate you will be lost because sometimes if you wanna say a sentence and you do not know how to communicate it properly, this will cause a lot of problems support ES	I believe that what differentiate Bahrain polytechnic amongst different universities in Bahrain is that they tap on or focus on the employability skills that all our projects are based on project

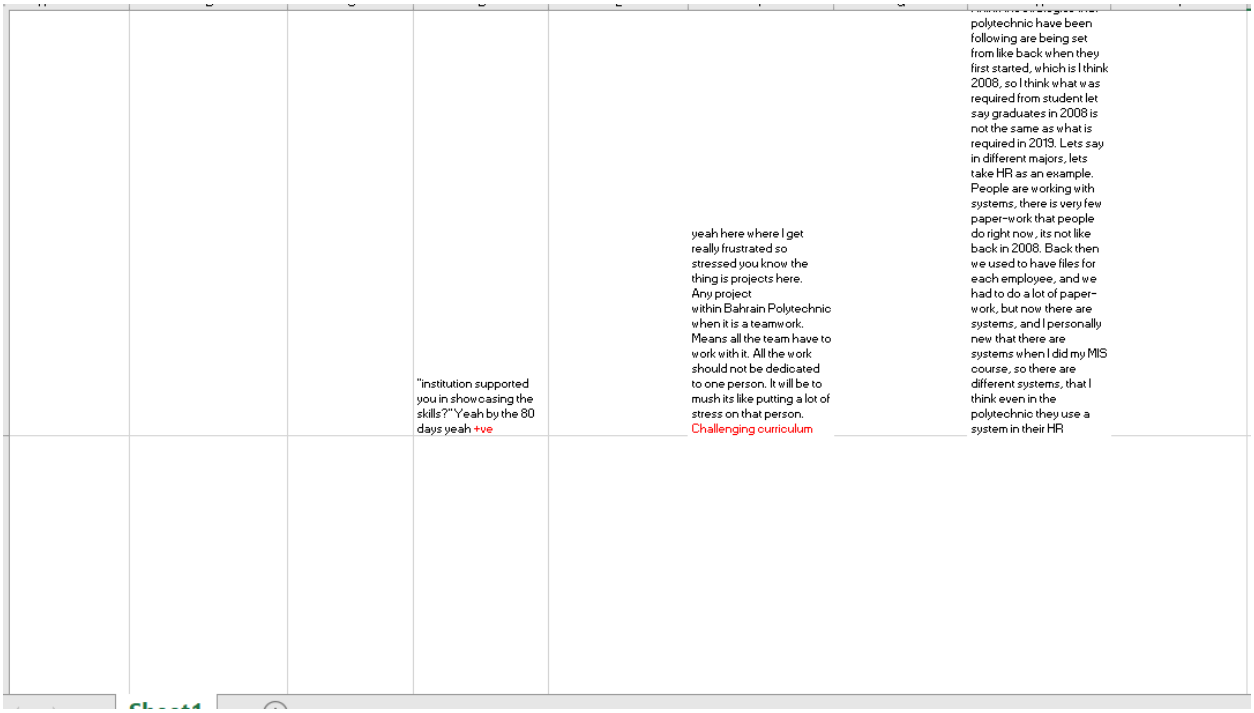


	no, not just the car project even the wind tower. the bridge was a good experience project	specially analytical writing during the English courses and even some engineering courses support	I took thinking outside the box this course it was very helpful support	there was also the car project, which was a lot like real life it was a lot of problem solving. Theres a new problem we need to solve quickly, it wasn't, with all due respect, like normal courses, were we had to make a report, making an imaginary solution authentic	an employee who is within that role for different corporations, we are not allowed to do, to interview anyone within Bahrain Polytechnic faculty. So I had to communicate with others, we were introduced to linkedin and we were asked to do, where we have to find employees through linkedin, then communicate through linkedin via email or maybe phone call or whatsapp so that we communicate with them and set a timing the interview. project	because the marketing major, you can't tell like sugarcoat your words toward them, if you are making a reflection video and sending it to them, they want your honest views regarding yourself, support	keeping in mind that in the past four years we did not only present in front of our tutors. Support	or I will be talking about our major in specific, the marketing major all our projects are based on working with real based clients, authentic
	it felt real. Yes it felt real. Authentice	By projects, by reflections, by presentations, by interviews and all those things support	Actually, yes maybe, maybe because the idea from the gant chart maybe because I learnt about the Microsoft project I have used that in project management course support	that through the various courses I received and the training I received we received a course in manufacturing processes, it was about aluminum rolling. Support	there is a course called applied communication where the main skills Bahrain polytechnic focus on will be introduced to the students in which the student will take those skills and use them within the coming years until the graduation and being involved in work force. support	the time that I mostly engaged with them was during my elective called market yourself since they came in and I took some classes and they made us to do some personality test and they told us that you can fix your CV's in certain ways, support	I think even when I was lucky enough to do English (4), which is the highest one, but even in this course we were trained to communicate by having our speaking test, which is also a bit similar to IELTS test so this was a good practice also for communication. absolutely support English	So now as I am doing my final year project in a company and we were being asked to go to work so we were being treated as employees we are not treated as students neither internship students we are treated as part of the team authentic
	I am going to do for the company something of real value Its not just for finishing my study, yeah it is actually something that I am going to present here and at the company as well Authentic	and during my last course which was thinking outside the box support	due to several reasons actually to be specific in engineering program in our program we have graduation requirements that we have to complete 80 days in like training days internship programs WBL Yeah by the 80 days yeah WBL	It was about in the moment, we need to solve it quickly. Support	I was so shy but after that within that course I have approached and persuaded for the course in which I had to present in front of tutors but not students but I had to be engaged with males support	marketing day of course. Support we do not have a punch in system, however we are, I wouldn't say	it was for the subject PAL, suport	The practice that as I mentioned earlier, is working with real based clients that what helped the most authentic

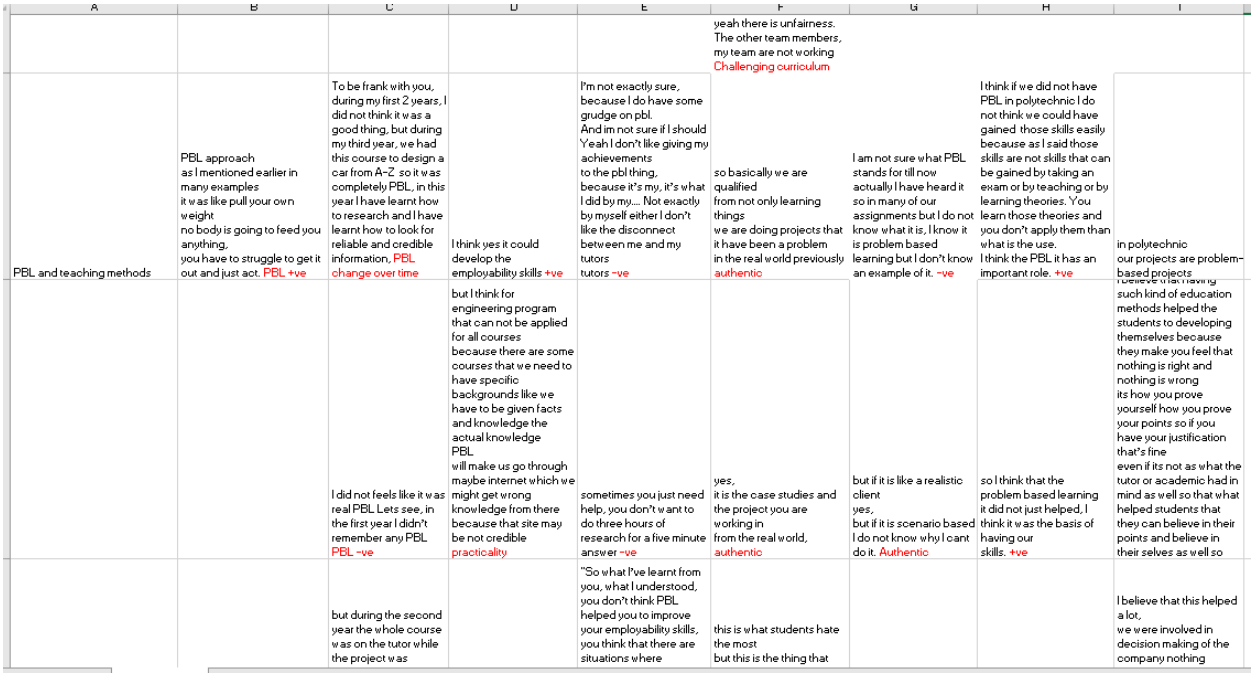
	yes I am already working so I have done these but we have been to 2 filed trips one was to Bill Helmets and the other was to the power station field trips		I actually I never been to an actual job interview however in our final year project we have like meetings with our supervisor with the organisation with the chairman or the project manager, Project	No there was also, there was that one elective course we don't have all the students that we always know right support	which is something part of my courses. Yeah previous courses I have took support	monitored, we do sign in physically sign, no punch in system and we do have an administrator because we have a company that has more than 50 plus in our department itself so she keeps a watch on us everybody, so in terms of outfits, because in our company you can't wear jeans pant or short and stuff when you come to work so in these kind of things she keep a track on us and she sends emails and she	"so at that point where you were in PAL, okay those thoughts came to you I don't know them, I don't know their work. I don't know if they are god enough to work with." exactly support	as we were asked to analysis a lot of content and situations clients and all support opportunity
			however here like when we take like technical courses for example there are course that we have to do like practical work so in order to achieve that we have to analyse these stuff by experimenting maybe via different experiments, project	It's just the chances that I got, the challenges I received. Teamwork's teamwork courses All of them. Support	Yes I have done this in my financial accounting course where we have to analyze a company their financial statement and then we have to analysis that company. We have the IFRS do you know that the International Financial Report Standard and where we have to know what is involve within this convention, and then we have to analysis the company and see if it does it apply it well or not. support	a lot of stuff I did not know that I was agitated of, like working hours, it s completely new like we were used to going 4 hours 6 hours to uni, however here it is 8 to hours, you have to come on time leave on time and when you take offs you have to inform someone, you have to be accountable for your own work it is less like you just can walk in to someone's office or go to the disc space and ask them, you can't do that anymore. WBL in polytechnic we do that with the tutors sometimes. However at, specially in my office they are very corporate	now, I think in some of the subjects of course we have the choice, choosing the people who are in our group and in other subjects we don't have a choice support as I said, I am a business student	



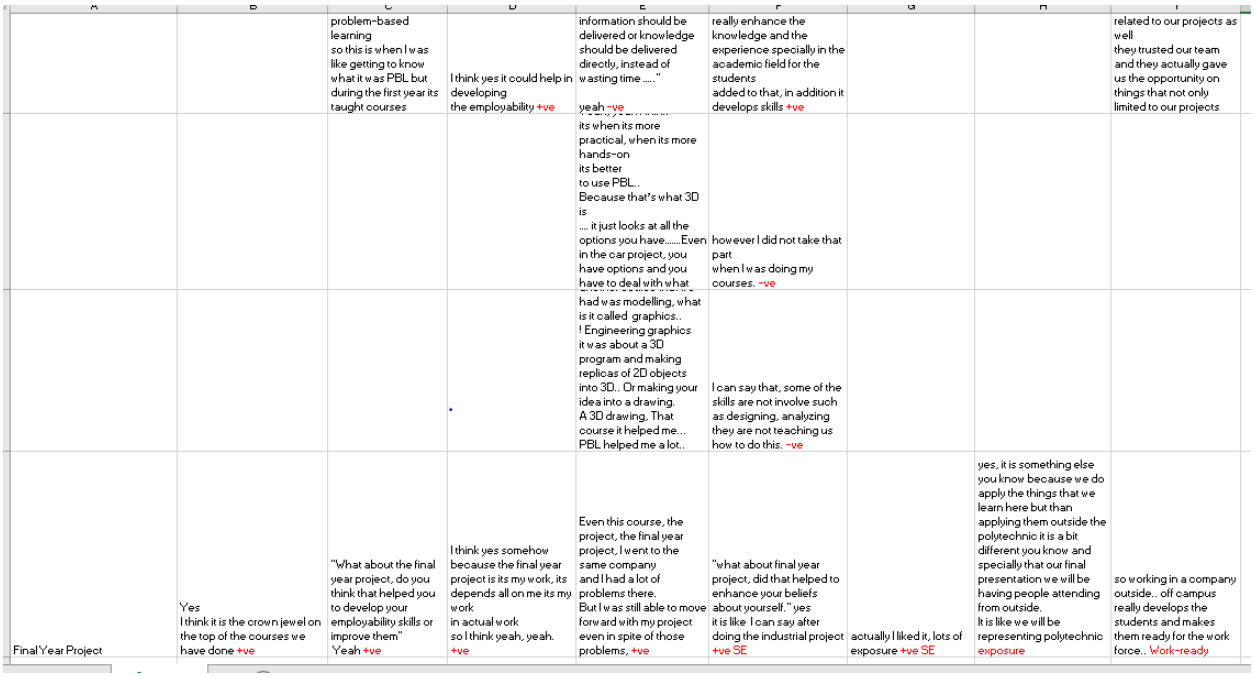
			but from English like specifically we did not the program changes every course, the time changes I don't know I don't know where is the wrong maybe with the tutors or the actual program -ve	After that it was directly I went to Garamco, a company specialized in that field WBL	we have to observe the culture and the environment of the company that we are working in, support	level high corporate level it is a lot of I wouldn't say restrictions but I would say a whole policies and procedures to follow more new, means polytechnic has policies and procedure however its not to this level of the company I have been placed at. lots of exposure WBL	student so our projects, assignments, assessments helps you to focus on different skills lets say team work, communication, problem solving focusing on a lot of skills but not only the educational side support ES	
			For example, I think in my point of view, and I can guarantee you if you ask the whole batch that the English courses the degree English courses Degree are useless, really they are useless -ve		Actually when I went there I have seen that lots of the topics that we took in 'Motamahen' were usually we have focused on when we were studying in Bahrain Polytechnic support	so polytechnic started to give some sort of push to me, besides that push it is like mandatory that 30 or 35% of all our assessments have to be a group effort, assessment	Well the way it works is that we get sent after a company and then we have to identify a project there or they can give us a project and then we have to start working on it What I think is a bit different is that you don't sit at home and you do your project. Like you have to go and work somewhere and sometimes the place you are working for give you their own work, they want you to learn. So I think you know the four years are different than this semester. WBL	
			Because I can tell you I have learnt many things from different courses +ve		there was all the things that I took actually, previously at Bahrain Polytechnic. Which was repetitive things for me. support	so this is a good chance to speak because a lot of people when they are in groups they do not speak they do not speak what they like and what they do not like -ve	because how we deal with the industry during our studying time is just they come to watch us present, we go visits, they give us.. sometimes we have those seminars, we attend lectures outside polytechnic, we did it in Betloo in Alba, field trip I think the strategies that	



			"institution supported you in showcasing the skills?" Yeah by the 80 days yeah +ve		yeah here where I get really frustrated so stressed you know the thing is projects here. Any project within Bahrain Polytechnic when it is a teamwork. Means all the team have to work with it. All the work should not be dedicated to one person. It will be to mush its like putting a lot of stress on that person. Challenging curriculum		polytechnic have been following are being set from like back when they first started, which is I think 2008, so I think what was required from student let say graduates in 2008 is not the same as what is required in 2019. Lets say in different majors, lets take HR as an example. People are working with systems, there is very few paper-work that people do right now, its not like back in 2008. Back then we used to have files for each employee, and we had to do a lot of paper-work, but now there are systems, and I personally new that there are systems when I did my MIS course, so there are different systems, that I think even in the polytechnic they use a system in their HR	



A	B	C	D	E	F	G	H	I
					yeah there is unfairness. The other team members, my team are not working Challenging curriculum			
PBL and teaching methods	PBL approach as I mentioned earlier in many examples it was like pull your own weight no body is going to feed you anything, you have to struggle to get it out and just act. PBL +ve	To be frank with you, during my first 2 years, I did not think it was a good thing, but during my third year, we had this course to design a car from A-Z so it was completely PBL, in this year I have learnt how to research and I have learnt how to look for reliable and credible information, PBL change over time	I think yes it could develop the employability skills +ve	I'm not exactly sure, because I do have some grudge on pbl. And im not sure if I should Yeah I don't like giving my achievements to the pbl thing, because it's my, it's what I did by my.... Not exactly by myself either I don't like the disconnect between me and my tutors tutors -ve	so basically we are qualified from not only learning things we are doing projects that it have been a problem in the real world previously authentic	I am not sure what PBL stands for till now actually I have heard it so in many of our assignments but I do not know what it is, I know it is problem based learning but I don't know an example of it. -ve	I think if we did not have PBL in polytechnic I do not think we could have gained those skills easily because as I said those skills are not skills that can be gained by taking an exam or by teaching or by learning theories. You learn those theories and you don't apply them than what is the use. I think the PBL it has an important role. +ve	in polytechnic our projects are problem- based projects
		I did not feels like it was real PBL Lets see, in the first year I didn't remember any PBL PBL -ve	but I think for engineering program that can not be applied for all courses because there are some courses that we need to have specific backgrounds like we have to be given facts and knowledge the actual knowledge PBL will make us go through maybe internet which we might get wrong knowledge from there because that site may be not credible practicality	sometimes you just need help, you don't want to do three hours of research for a five minute answer -ve	yes, it is the case studies and the project you are working in from the real world, authentic	but if it is like a realistic client yes, but if it is scenario based I do not know why I cant do it. Authentic	so I think that the problem based learning it did not just helped, I think it was the basis of having our skills. +ve	believe that having such kind of education methods helped the students to developing themselves because they make you feel that nothing is right and nothing is wrong its how you prove yourself how you prove your points so if you have your justification that's fine even if its not as what the tutor or academic had in mind as well so that what helped students that they can believe in their points and believe in their selves as well so
		but during the second year the whole course was on the tutor while the project was		"So what I've learnt from you, what I understood, you don't think PBL helped you to improve your employability skills, you think that there are situations where	this is what students hate the most but this is the thing that			I believe that this helped a lot, we were involved in decision making of the company nothing



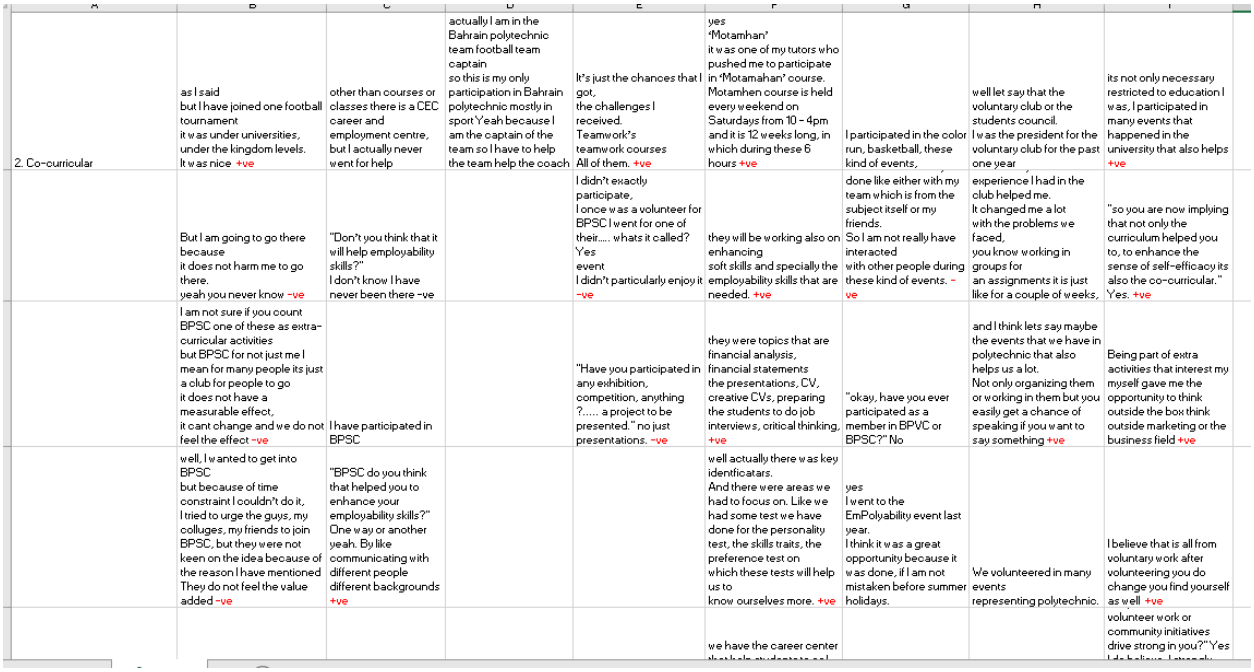
A	B	C	D	E	F	G	H	I
		problem-based learning so this is when I was like getting to know what it was PBL but during the first year its taught courses	I think yes it could help in developing the employability +ve	information should be delivered or knowledge should be delivered directly, instead of wasting time ....." yeah -ve	really enhance the knowledge and the experience specially in the academic field for the students added to that, in addition it develops skills +ve			related to our projects as well they trusted our team and they actually gave us the opportunity on things that not only limited to our projects
				its when its more practical, when its more hands-on its better to use PBL.. Because that's what 3D is .... it just looks at all the options you have..... Even in the car project, you have options and you have to deal with what	however I did not take that part when I was doing my courses. -ve			
				had was modelling, what is it called graphics.. ! Engineering graphics it was about a 3D program and making replicas of 2D objects into 3D.. Or making your idea into a drawing. A 3D drawing, That course it helped me... PBL helped me a lot..	I can say that, some of the skills are not involve such as designing, analyzing they are not teaching us how to do this. -ve		
Final Year Project	Yes I think it is the crown jewel on the top of the courses we have done +ve	"What about the final year project, do you think that helped you to develop your employability skills or improve them" Yeah +ve	I think yes somehow because the final year project is its my work, its depends all on me its my work in actual work so I think yeah, yeah. +ve	Even this course, the project, the final year project, I went to the same company and I had a lot of problems there. But I was still able to move forward with my project even in spite of those problems, +ve	"what about final year project, did that helped to enhance your beliefs about yourself." yes it is like I can say after doing the industrial project +ve SE	actually I liked it, lots of exposure +ve SE	yes, it is something else you know because we do apply the things that we learn here but than applying them outside the polytechnic it is a bit different you know and specially that our final presentation we will be having people attending from outside. It is like we will be representing polytechnic exposure	so working in a company outside.. off campus really develops the students and makes them ready for the work force.. Work-ready

			Yeah yeah analysis or everything we were able to show case theses stuff but however in real actual interview +ve	the final project is a long story.....Its been six months since it started and a lot has happened ,since a lot has happened, a lot.... it feels a lot of time has passed..... And I can see myself going from one point to another point just..... pushing through .....As many walls as there are. Because as many walls as there are, they were all closed on me. At one point there was just... the simple step wouldn't worn for me. -ve				
Tutor support	I think the 3rd year car project was the highlight of the study. Because the tutor there Mr. John, he kind of put us in a setting even we had to purchase things, not just to write that you gonna buy this and this to justify. authentic	In my opinion Dr Christina head of school and Mr Adel.Yeah, very helpful specially Mr Adel I think that whenever I wanted them its regarding classes or courses so it wasn't about skills		because sometimes they keep it as an excuse to not help students..... which is a big problem when you need help sometimes ..... -ve tutor experince	actually here me fourth year student, I know the different levels of tutors. Of course there are different levels of tutors, there are good tutors, there are average tutors.	our tutors they push us a lot to use the right terminologies while speaking I still feel that I am not even close to perfect, +ve	well, I will be doing my final project hopefully next semester, but we have a background of what's going to happen. Our program manager did talk to us about it.	Not only from peers, but form our academics as well "ok academic".... and our academics really helped us and guided us to right path. +ve
	well I think the quality of the tutors we get here is not always correct some of them they just have teaching background nothing practical so that's kind of, I don't know, it does not feel that Polytechnic is right for someone with just theoretical background. -ve tutor experince			"Your tutors do help you and do you think that their help is beneficial." yes +ve	And some tutors who have been involved maybe in the area you want to be employed in later so you will have the chance to contact with them and they are so welcoming to answer you and guide you this is what I have seen. +ve	have now. Feeling comfortable, confident, having this perception about yourself that you'll be able to work wherever they will keep you as long as suites your interest. So how did the institution helped you to do that?" two things. One is the tutors in general +ve	yes I do, before Dr Namrata, in first year, I had Ms Aysha as my advisor, well actually she used to tell me who should I speak to when we had something we are stuck on, she used to guide me and this is where I met Dr Namrata and then she was assigned to me. +ve	in our major its not only respected to our assigned mentor all our faculty are actually our mentors or as we call it between ourselves our senior consultant +ve the faculty and the staff

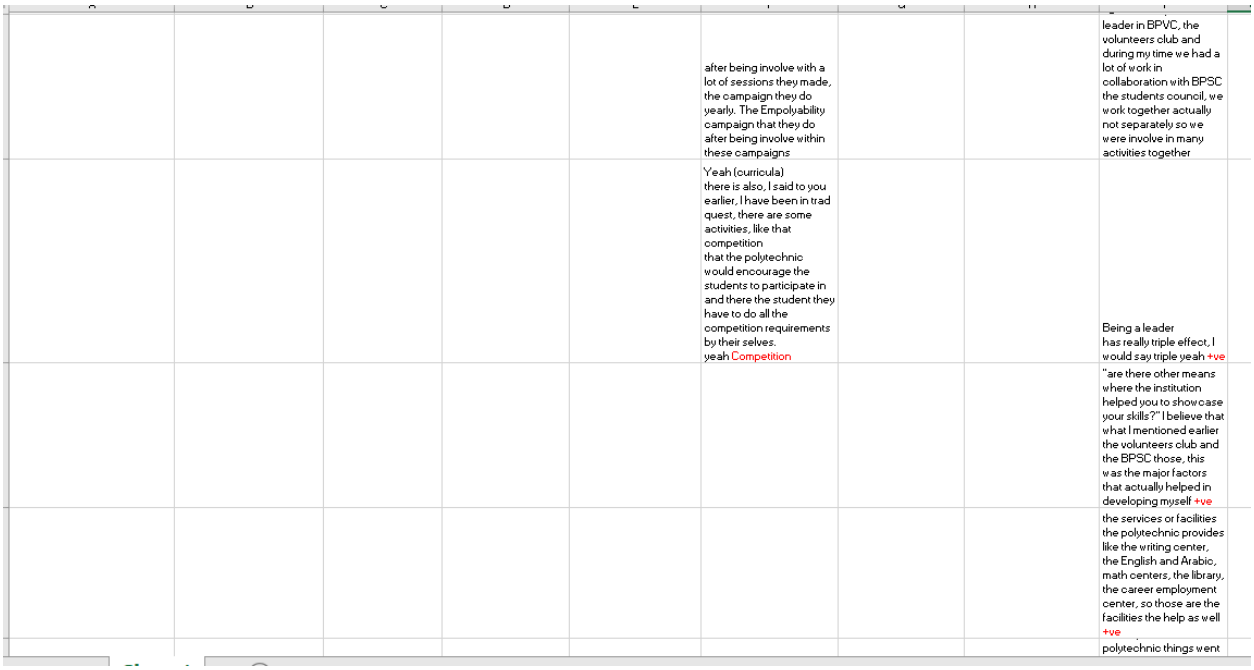
Foundation skills			Yeah yeah foundation English was good communication		For me as a student who did not take foundation, I think foundation here in the polytechnic enables and teach the students lots of skills special with the coding and the computer, ES		maybe back then we thought having one year foundation was a bit maybe silly or we did not need it Foundation but it did prepare us from day one. +ve	
					but I have seen other students who have took the foundation year, they are aware of some coding within technology and their technological skills are much better then mine. I think I was not lucky enough to take those courses. I wish I had the chance to do that. +ve		In the polytechnic starting from the first year, even in foundation but mostly the first year, we started doing the interviews, we started surveying people passing out questionnaires	
showcasing			"institution supported you in showcasing the skills?" Yeah by the 80 days yeah +ve	yes, there was a lot of chances to do so and taking those chances has helped me to improve.	say, do you know this project bla blab la within this company, well I was part of that team who developed this project specially if it is a successful project or it is well-known project within Bahrain it is a very good opportunity for students to say it in front of an	"are you able to showcase those skill in front of prospective employers?" S: I would say clients, because we are speaking with clients only. If you consider them prospective employers then yes +ve	Yes I think any student in the polytechnic has a lot of chances Polytechnic to showcase those skills or to develop their skills +ve	
					I had the chance to present in front of students from other universities and present in front of judges coming from different	monthly basis, not daily because we do not take up a lot of their activities we do more of working on our reports and stuff however I would say like in terms of communicating with them or writing emails and these kind of things the		

					interview, no it was internship interview in which I had the chance to say that I have this skill, plus providing an example from previous work I have done during my studies in polytechnic, I had the chance to provide an example from my previous study. yeah, its not just saying that I have this, I also provided an example. Yeah this is what is important, the evidence.		"do you feel that you are able to showcase your skills to prospective employers?" yes +ve	
							"and you think the institution supported you showcasing those skills?" yes +ve	
feedback				"Okay do you get feedback on your reflections?" Not a lot of them. -ve	some of the tutors after submitting the reports they will write the feedback in which it will help us +ve	he really make it to a point to tell me when I use wrong terminology in the sentence and if does not fit the sentence he is like use this word instead.	and the feedback that we get from them, not only from people from outside, even from our tutors after presenting,	They do give us in depth feedback on how we can develop ourselves +ve
				"Do you think that the feedback on your reflection, might help in improving yourself ?" I do +ve		After every assignment, or every possible assignment they do give us feedback.	and sometime lets be honest not all tutors give you good feedback so one feedback is useful and the other is not it takes -ve	peer feedback so that helps a lot at the end of every semester or this semester we did it half way through as well we gave each other feedback in a professional manner. At the end of the day, it helps us to build ourselves and know our strengths and weaknesses peer feedback

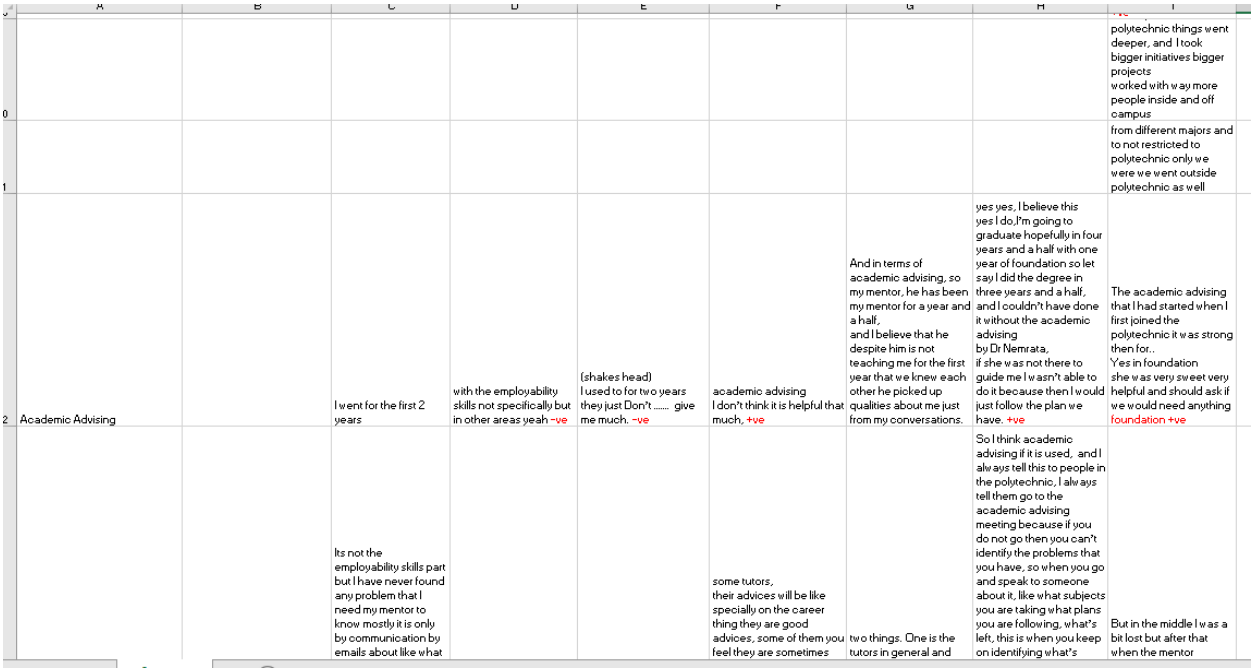
						I am not sure what they do with them! in terms of this reflection video, I am not sure, they never really got back to us about it. Maybe they see it and they do not tell us but they try to identify ever the time is right to tell us. It could be that, I am not sure. -ve	"you have got the chance to sit and to speak to the programme manager?" informally yes, but formally no	
refelctive practice		In my opinion yes because during most reflections I have known that I am good I am good at communication skills so I like to reflect +ve	I think yes because when you are up doing your reflection you just come across again with the ideas you already have, so the reflection is like skimming is like reading again what you have already thought, I think reflection yeah +ve	Its in most courses. So doing it in most courses just makes, if I'm doing two reflections in every course.	well, I did only one or two reflections in the 4 years that I have did There was the reflection after the interview, that I have made -ve less opportunities	"Do you feel that reflection helped you to identify those beliefs about yourself in terms of wither you are able to do the employability skills, perform them or not?" definitely +ve	in some of our courses we include the reflection part or lets say self-evaluation in the assignment as we report. But sometimes we do it in presentations also	When writing the reflection you do think about yourself and the areas that you need to improve and +ve
		it was a good way actually +ve			within Market Yourself course, I had to do a reflection about how did this interview helped me to know where I want to be after 5 years.		So I think its not only self-reflecting but when someone else is talking about your work, what your down sides. I think this is something I personally benefited a lot from.	but what I believe that helps more when you have talk with your mentor or your academic and in-depth talk, that I believe it helps way more than just writing the reflection and we do have the feedback sessions
					After doing the interview we had to do the reflection. Does that interview helped you do you still feel that you want to approach that job after interviewing the employee			
			yeah actually I am in the Bahrain polytechnic team football team captain		yes 'Motamhan' it was one of my tutors who pushed me to participate			



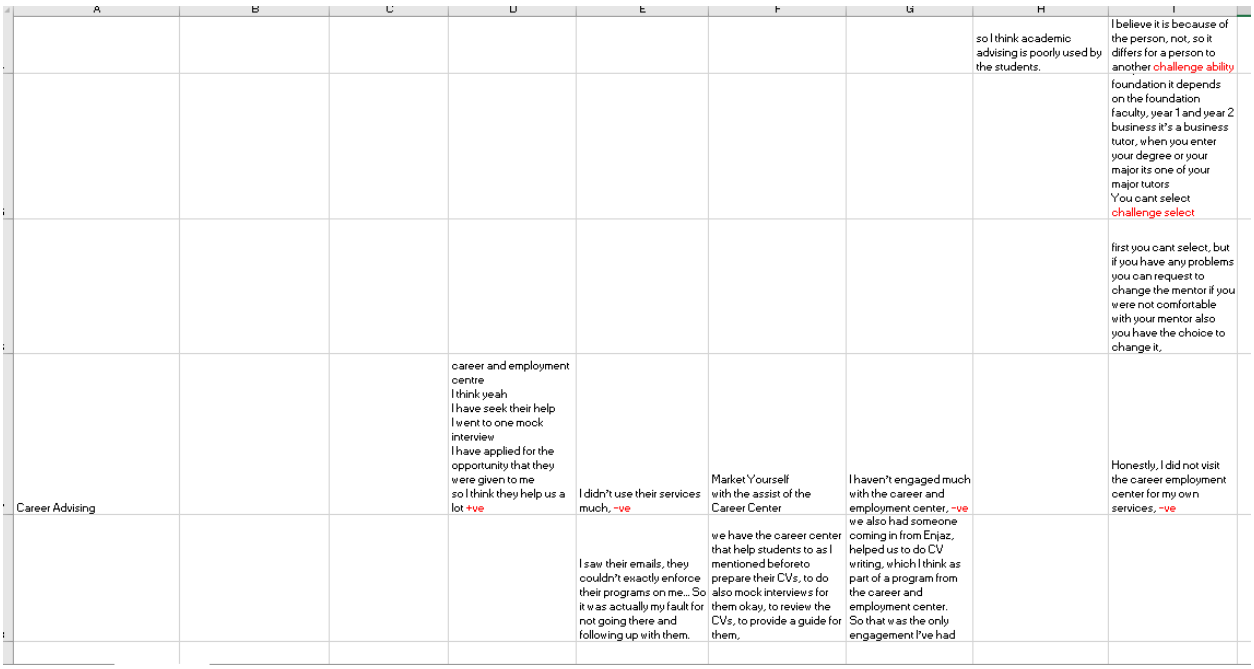
			actually I am in the Bahrain polytechnic team football team captain so this is my only participation in Bahrain polytechnic mostly in sport Yeah because I am the captain of the team so I have to help the team help the coach		yes 'Motamhan' it was one of my tutors who pushed me to participate in 'Motamahan' course. Motamhen course is held every weekend on Saturdays from 10 - 4pm and it is 12 weeks long, in which during these 6 hours +ve			
2. Co-curricular	as I said but I have joined one football tournament it was under universities, under the kingdom levels. It was nice +ve	other than courses or classes there is a CEC career and employment centre, but I actually never went for help		It's just the chances that I got, the challenges I received. Teamwork's teamwork courses All of them. +ve		I participated in the color run, basketball, these kind of events,	well let say that the voluntary club or the students council. I was the president for the voluntary club for the past one year	its not only necessary restricted to education I was, I participated in many events that happened in the university that also helps +ve
	But I am going to go there because it does not harm me to go there. yeah you never know -ve	"Don't you think that it will help employability skills?" I don't know I have never been there -ve		I didn't exactly participate, I once was a volunteer for BPSC I went for one of their..... whats it called? Yes event I didn't particularly enjoy it -ve	they will be working also on enhancing soft skills and specially the employability skills that are needed. +ve	done like either with my team which is from the subject itself or my friends. So I am not really have interacted with other people during these kind of events. -ve	experience I had in the club helped me. It changed me a lot with the problems we faced, you know working in groups for an assignments it is just like for a couple of weeks,	"so you are now implying that not only the curriculum helped you to, to enhance the sense of self-efficacy its also the co-curricular." Yes. +ve
	I am not sure if you count BPSC one of these as extra-curricular activities but BPSC for not just me I mean for many people its just a club for people to go it does not have a measurable effect, it cant change and we do not feel the effect -ve	I have participated in BPSC		"Have you participated in any exhibition, competition, anything ?..... a project to be presented." no just presentations. -ve	they were topics that are financial analysis, financial statements the presentations, CV, creative CVs, preparing the students to do job interviews, critical thinking, +ve	"okay, have you ever participated as a member in BPVC or BPSC?" No	and I think lets say maybe the events that we have in polytechnic that also helps us a lot. Not only organizing them or working in them but you easily get a chance of speaking if you want to say something +ve	Being part of extra activities that interest my myself gave me the opportunity to think outside the box think outside marketing or the business field +ve
	well, I wanted to get into BPSC but because of time constraint I couldn't do it, I tried to urge the guys, my colluges, my friends to join BPSC, but they were not keen on the idea because of the reason I have mentioned They do not feel the value added -ve	"BPSC do you think that helped you to enhance your employability skills?" One way or another yeah. By like communicating with different people different backgrounds +ve			well actually there was key identificatars. And there were areas we had to focus on. Like we had some test we have done for the personality test, the skills traits, the preference test on which these tests will help us to know ourselves more. +ve	yes I went to the EmPolyability event last year. I think it was a great opportunity because it was done, if I am not mistaken before summer holidays.	We volunteered in many events representing polytechnic.	I believe that is all from voluntary work after volunteering you do change you find yourself as well +ve
					we have the career center			volunteer work or community initiatives drive strong in you?" Yes



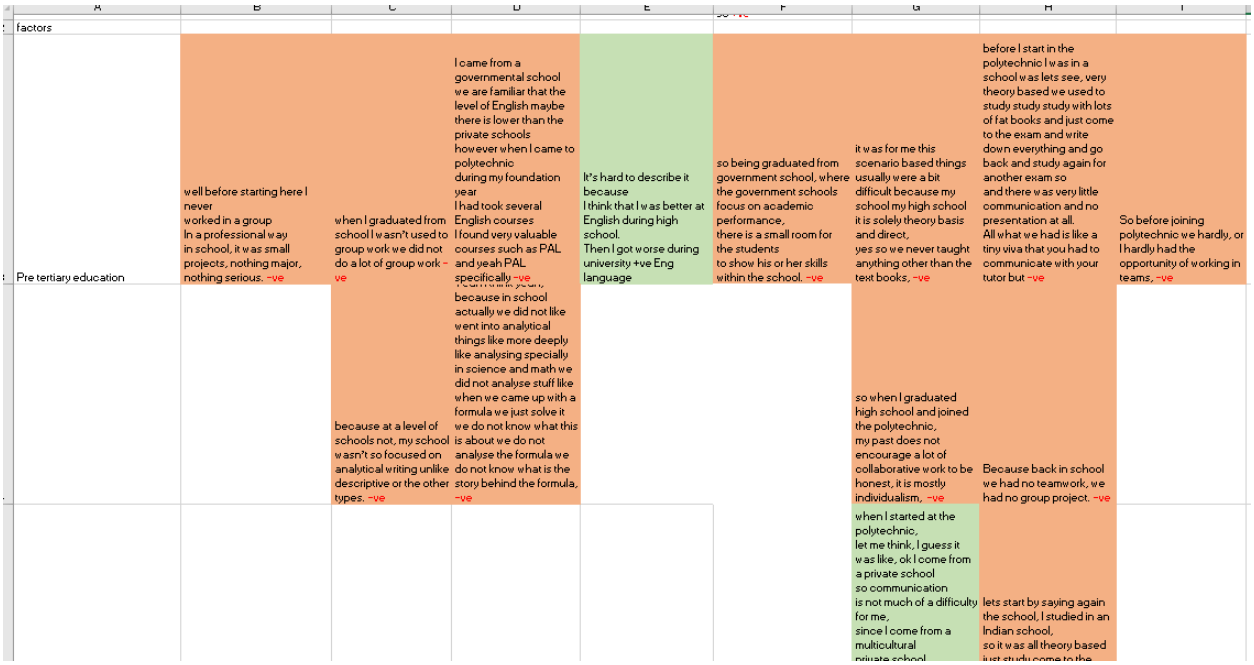
					after being involve with a lot of sessions they made, the campaign they do yearly. The Empolyability campaign that they do after being involve within these campaigns			leader in BPVC, the volunteers club and during my time we had a lot of work in collaboration with BPSC the students council, we work together actually not separately so we were involve in many activities together
					Yeah (curricula) there is also, I said to you earlier, I have been in trad quest, there are some activities, like that competition that the polytechnic would encourage the students to participate in and there the student they have to do all the competition requirements by their selves. yeah Competition			Being a leader has really triple effect, I would say triple yeah +ve
								"are there other means where the institution helped you to showcase your skills?" I believe that what I mentioned earlier the volunteers club and the BPSC those, this was the major factors that actually helped in developing myself +ve
								the services or facilities the polytechnic provides like the writing center, the English and Arabic, math centers, the library, the career employment center, so those are the facilities the help as well +ve
								polytechnic things went



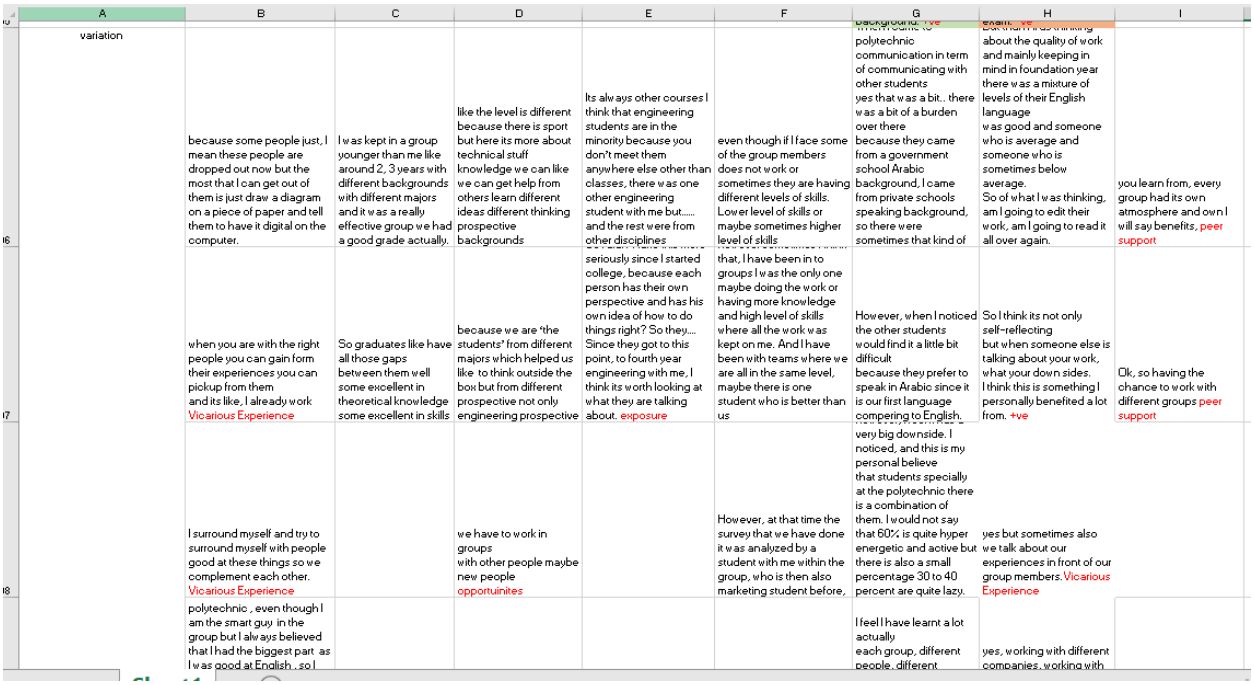
	A	B	C	D	E	F	G	H	I
0									polytechnic things went deeper, and I took bigger initiatives bigger projects worked with way more people inside and off campus
1									from different majors and to not restricted to polytechnic only we were we went outside polytechnic as well
2	Academic Advising		I went for the first 2 years	with the employability skills not specifically but in other areas yeah -ve	(shakes head) I used to for two years they just Don't ..... give me much. -ve	academic advising I don't think it is helpful that much, +ve	And in terms of academic advising, so my mentor, he has been my mentor for a year and a half, and I believe that he despite him is not teaching me for the first year that we knew each other he picked up qualities about me just from my conversations.	yes yes, I believe this yes I do,I'm going to graduate hopefully in four years and a half with one year of foundation so let say I did the degree in three years and a half, and I couldn't have done it without the academic advising by Dr Nemrata, if she was not there to guide me I wasn't able to do it because then I would just follow the plan we have. +ve	The academic advising that I had started when I first joined the polytechnic it was strong then for.. Yes in foundation she was very sweet very helpful and should ask if we would need anything foundation +ve
3			Its not the employability skills part but I have never found any problem that I need my mentor to know mostly it is only by communication by emails about like what			some tutors, their advices will be like specially on the career thing they are good advices, some of them you feel they are sometimes	two things. One is the tutors in general and	So I think academic advising if it is used, and I always tell this to people in the polytechnic, I always tell them go to the academic advising meeting because if you do not go then you can't identify the problems that you have, so when you go and speak to someone about it, like what subjects you are taking what plans you are following, what's left, this is when you keep on identifying what's	But in the middle I was a bit lost but after that when the mentor



	A	B	C	D	E	F	G	H	I
								so I think academic advising is poorly used by the students.	I believe it is because of the person, not, so it differs for a person to another challenge ability
									foundation it depends on the foundation faculty, year 1 and year 2 business it's a business tutor, when you enter your degree or your major its one of your major tutors You cant select challenge select
									first you cant select, but if you have any problems you can request to change the mentor if you were not comfortable with your mentor also you have the choice to change it,
	Career Advising			career and employment centre I think yeah I have seek their help I went to one mock interview I have applied for the opportunity that they were given to me so I think they help us a lot +ve	I didn't use their services much, -ve	Market Yourself with the assist of the Career Center	I haven't engaged much with the career and employment center, -ve		Honestly, I did not visit the career employment center for my own services, -ve
					I saw their emails, they couldn't exactly enforce their programs on me... So it was actually my fault for not going there and following up with them.	we have the career center that help students to as I mentioned beforeto prepare their CVs, to do also mock interviews for them okay, to review the CVs, to provide a guide for them,	we also had someone coming in from Enjaz, helped us to do CV writing, which I think as part of a program from the career and employment center. So that was the only engagement I've had		



	A	B	C	D	E	F	G	H	I
1	factors								
2	Pre tertiary education	well before starting here I never worked in a group In a professional way in school, it was small projects, nothing major, nothing serious. -ve	when I graduated from school I wasn't used to group work we did not do a lot of group work -ve	I came from a governmental school we are familiar that the level of English maybe there is lower than the private schools however when I came to polytechnic during my foundation year I had took several English courses I found very valuable courses such as PAL and yeah PAL specifically -ve	It's hard to describe it because I think that I was better at English during high school. Then I got worse during university +ve Eng language	so being graduated from government school, where the government schools focus on academic performance, there is a small room for the students to show his or her skills within the school. -ve	it was for me this scenario based things usually were a bit difficult because my school my high school it is solely theory basis and direct, yes so we never taught anything other than the text books, -ve	before I start in the polytechnic I was in a school was lets see, very theory based we used to study study study with lots of fat books and just come to the exam and write down everything and go back and study again for another exam so and there was very little communication and no presentation at all. All what we had is like a tiny viva that you had to communicate with your tutor but -ve	So before joining polytechnic we hardly, or I hardly had the opportunity of working in teams, -ve
3			because at a level of schools not, my school wasn't so focused on analytical writing unlike descriptive or the other types. -ve	because in school actually we did not like went into analytical things like more deeply like analysing specially in science and math we did not analyse stuff like when we came up with a formula we just solve it we do not know what this is about we do not analyse the formula we do not know what is the story behind the formula, -ve			so when I graduated high school and joined the polytechnic, my past does not encourage a lot of collaborative work to be honest, it is mostly individualism, -ve	Because back in school we had no teamwork, we had no group project. -ve	
4							when I started at the polytechnic, let me think, I guess it was like, ok I come from a private school so communication is not much of a difficulty for me, since I come from a multicultural private school	lets start by saying again the school, I studied in an Indian school, so it was all theory based just study come to the	



	A	B	C	D	E	F	G	H	I
5	variation								
6		because some people just, I mean these people are dropped out now but the most that I can get out of them is just draw a diagram on a piece of paper and tell them to have it digital on the computer.	I was kept in a group younger than me like around 2, 3 years with different backgrounds with different majors and it was a really effective group we had a good grade actually.	like the level is different because there is sport but here its more about technical stuff knowledge we can like we can get help from others learn different ideas different thinking prospective backgrounds	Its always other courses I think that engineering students are in the minority because you don't meet them anywhere else other than classes, there was one other engineering student with me but..... and the rest were from other disciplines	even though if I face some of the group members does not work or sometimes they are having different levels of skills. Lower level of skills or maybe sometimes higher level of skills	polytechnic communication in term of communicating with other students yes that was a bit.. there was a bit of a burden over there because they came from a government school Arabic background, I came from private schools speaking background, so there were sometimes that kind of	about the quality of work and mainly keeping in mind in foundation year there was a mixture of levels of their English language was good and someone who is average and someone who is sometimes below average. So of what I was thinking, am I going to edit their work, am I going to read it all over again.	you learn from, every group had its own atmosphere and own I will say benefits, peer support
7		when you are with the right people you can gain form their experiences you can pickup from them and its like, I already work Vicarious Experience	So graduates like have all those gaps between them well some excellent in theoretical knowledge some excellent in skills	because we are 'the students' from different majors which helped us like to think outside the box but from different prospective not only engineering prospective	seriously since I started college, because each person has their own perspective and has his own idea of how to do things right? So they.... Since they got to this point, to fourth year engineering with me, I think its worth looking at what they are talking about. exposure	that, I have been in to groups I was the only one maybe doing the work or having more knowledge and high level of skills where all the work was kept on me. And I have been with teams where we are all in the same level, maybe there is one student who is better than us	However, when I noticed the other students would find it a little bit difficult because they prefer to speak in Arabic since it is our first language compering to English,	So I think its not only self-reflecting but when someone else is talking about your work, what your down sides. I think this is something I personally benefited a lot from. +ve	Ok, so having the chance to work with different groups peer support
8		I surround myself and try to surround myself with people good at these things so we complement each other. Vicarious Experience		we have to work in groups with other people maybe new people opportuinites		However, at that time the survey that we have done it was analyzed by a student with me within the group, who is then also marketing student before,	very big downside. I noticed, and this is my personal believe that students specially at the polytechnic there is a combination of them. I would not say that 60% is quite hyper energetic and active but there is also a small percentage 30 to 40 percent are quite lazy.	yes but sometimes also we talk about our experiences in front of our group members. Vicarious Experience	
9		polytechnic , even though I am the smart guy in the group but I always believed that I had the biggest part as I was good at English , so I					I feel I have learnt a lot actually each group, different people, different	yes, working with different companies, working with	

	A	B	C	D	E	F	G	H	I
5	Past experince	Government, but I had studied before I came and previous experience. no, I had the IELTS as well.		I was good before.. I was good in working with groups before coming to the institution because I am a former football player and we know football is group, social activity I play for 8 years maybe and in each year different people different coach so the experience each year different experience	I had a few part time jobs; part time jobs where I did a few.... Work +ve It wasn't engineering one was a secretary/ IT, one as a just a shop for the clothes	when I first entered the university coming from a movement school where I used to being in an environment where it is all females gender separation	By the way my language course that I take outside polytechnic our tutors did that for us. since I am learning Korean language. She took us to a café the owner is Korean. He owns this cafe as well. So we went there and she was like okay guys read it in Korean learn how to speak in Korean. Even though the waiters did not understand but she wanted us to practice. Course +ve		I was in school polytechnic I took some initiatives in school but they weren't as much as we did in the polytechnic co-curricular community work
6		yeah I am not very keen on that because I already have a job and I think I probably gonna progress in my current job			"Okay, okay and working in a professional setup." Yes work +ve	When I had an internship in Alba and they do usually weekly safety talks, which is they have the topic and they have to present a talk about a topic in front of the hole department or sometimes more than one department we have to talk in front of, so one of the tasks that was assigned to me was to handle the whole safety talks in front of the finance department internship +ve	However, I feel that me participating not participating but me going for like internships and training programmes has also helped me develop. So it is like polytechnic plus other programmes +ve internship		
7							mostly my part time job part time job +ve		
							it depends on the context where meeting for, if it is something that I am really interested in and even if I am with a group of strangers, I would definitely put an effort to bring everybody		

	A	B	C	D	E	F	G	H	I
	Reinforcement	was not something that calculated, it is more generic. Now I think it is more of a process.	hmm. I like to say, that now I am a better communicator definitely, when I came to polytechnic at the start I wasn't as good communicator because I've always assumed that people are at the same level with me say even the words I've used were the same for all people even if they weren't engineers form business or logistics but now I am using just like simple key communication	so now it has been for me 5 years in polytechnic Bahrain I improved myself in different, in several skills	I don't, im not sure, its hard to describe it. I think it was just me remembering it wrong. I'm not exactly sure, but coming to this fourth year, I do think that I'm better than when I was in first year. Even looking back at reports I see a lot of mistakes, a lot of ways I could have improved on them. I could have, wrote this better, I could have described this better to make it more clear to the reader -ve english	yes these skills, the analytical skills were not exist in me when I was in school I have been introduced to all these analytical, statistical and financial analysis, all I have been introduced to within university.	so for the past one and a half year, whenever we'd recommend any solution to the client it has been primary research has been done about the target market from day one. And then we look at what competitors done so we do competitor analysis and then we look at global best practices and then we make our solutions	So at the beginning, let us be honest, I am confident of saying I have gained the skill at the beginning of my third year so it took time because it is something you cant learn by paper and pen it is just you have to practice get back feedback	first started coming from high school we did not have much, or I did not have much background about the importance of having communication skills and to develop it even further communication skills so with our way of learning or our teaching methods which it is all based on problem based learning we were able to develop many skills including the communication skills communication skills
			because I don't know I am like calm while being in a team which I wasn't in the beginning.		So pushing forward I think has improved me and made me much more resilient to all difficulties in life, there were		because the one and half years has taught me to do that, I mean almost two years now.	lets say the most skill that takes time "analytical skill"	We do that currently, and after.. like now its my forth year and my last semester so I am I can reflect on myself when I first entered my third year to the major and I can see the difference, I can go more in depth now reflection
			I don't think that I had this skill before university				so even I have this preps now, so if you'd say 4 months ago if you have met, I have probably did not do anything of that. Now for months later, like today we were making a chick list for our final presentation.	just like in a blink of an eye, I think it's the work of the years before you know. So I think maybe if I faced a problem in my first year I wouldn't know how to deal with it like I do now so I think by now I have the skills I need right now.	when we first started I didn't honestly have much analytical skills or I did not do that in depth after studying we gained a lot, or I gained a lot or my skills enhanced from that area analytical skill
			so what is the difference between					just like in a blink of an eye, I think it's the work of the years before you know. So I think maybe if I faced a problem in my first year I wouldn't know how	

	A	B	C	D	E	F	G	H	I
			because it's a different concept from one person to another with some laws but undefine. So after the third year if I could say I am board to stay at class.						
	self-efficacy	well I feel I was as at a very good level to begin with, so I am not sure if I am the best judge to tell you if there is any difference, there probably is, but as I said probably because I was already at a good level.	I am able communicate batter employers I have what they are looking for communication team work writing abilities other employability skills communication team work	so I think this was the most important thing that I think developed through the years communication skills	"So you think that once you graduate and work with a group outside polytechnic probably at your workplace will be fine?" Yeah, I do think so.	"okay if I would tell you that I will give you something to research and present in front of people you never met is that an easy task for you?" yeah it is an easy thing,	definitely I am reliable	And by now I think I can proudly say I am able to practice all to employability skills wherever I am put you know.	after working with several groups I am now able to know how to deal with situations and know how to act towards it, if something negative happened, I know how to act through it what to do for example.
		yeah I think I am slightly better but people will probably judge me better than doing it myself.	I think, I like to say, that now I am a better communicator definitely, when I came to polytechnic at the start I wasn't as good communicator because I've always assumed that people are at the same level with me say even the words I've used were the same for all people even if they weren't engineers form business or logistics but now I am using just like simple key communication	yeah, improved and spread out more	I do think so within my specific job title or I'm not sure, if I'm given the chance, I would like to express myself and talk about problems that could be solved, realistically solved.	for me as a finance student is easy by my own it is easy because I have all the basics and I know everything to do	"so do you think that the institution had an impact in developing and promoting the beliefs about yourself." yes	"do you feel comfortable if I would put together a group and asked you to work with them in any project" yeas sure, in any project.	so working in a company outside.. off campus really develops the students and makes them ready for the work force..
		if I am very comfortable in understanding of the design I think it is not a problem	because I don't know I am like calm while being in a team which I wasn't in the	A real job interview I don't know I will be or not I have to try first	because I'm now very good at 3D stuff..	but I could not analyze the survey so I am not sure about my skills when		"do you think the institution promoted those beliefs in you properly in appropriate way?" to	to the expectation of the market" Yes, and more that as many of our clients actually take our work into consideration and take it further even after we are done with the project where ideas are being implemented

	A	B	C	D	E	F	G	H	I
			but now I				because I feel I know my concept I can speak and convey to anyone. It is just like a presentation when you meet your clients at the end, you met them four months ago and then you meet them one more time four months later for the final presentation.		
	self-awareness	"and that has been identified earlier that you know that you have some sort of weakness and you need to attend those weaknesses." yes	I don't think that I had this skill before university	So I think these stuff helped me to like analyse stuff more in depth in details applied education	and I was able to comprehend it faster than a normal person, because I already studied it and I know how the process proceeds	I am good in the individual work however I had to adopt the teamwork thing. The good thing I have is adaptability for me now I am fine with working with myself or working within a group. However now I prefer working with group more	So, I don't really know the client but I have been working passionately for his business for his products for his services	I was not really comfortable to work with them because I did not know them	And I believe that it's very important as in for myself I be able to understand or know how to deliver my message or the right message to the other person in a right way, without miscommunication or delivering the wrong message for example.
			First of all I wasn't aware that I had those skills to start with. So okay I thought that I was good in writing but in what writing I was good in I didn't really know, I could talk really good English because I was in private school but to what extent do other people understand me or how I could... lack of awareness at the beginning	so now it has been for me 5 years in polytechnic Bahrain I improved myself in different, in several skills	Its easier to talk about specifically what I want, maybe its because we know more terminology, right now. I'm not exactly sure.	But now when I have to do industry project it is also I said for my teammates that I will not be able to do that because I have never been involved in doing such thing.	so I will be able to say and to convey more, I have studied and researched, I know the concept, even though the client is a complete new person	So I never thought about it until I answered the question in the survey so I kept on thinking that my future plans..	so I got to develop this more after working with several groups, of course not from the first time you learn from,
			oh I am good at this skill or that skill so it		for example; as an	yes, now the gap that I feel that		in mind lets say polytechnic. And after that, what skills do I need, being a tutor is not an easy task its not an easy job. So I will be needing to communicate well, it is a set of skills I think those set of skills will	

A	B	C	D	E	F	G	H	I
Self-confidence			I think there we were able to showcase our skills for example when we have a design or a new ideas, we were able to showcase these stuff for them like communication		so I think that barrier was crashed and I got over it and overcome that issue so after my first course I had the confidence to interact with males	communicating with the tutors it was really for me easy, because they mostly speak in English language. Even when I did not understand something, or I had a doubt in my assignments I could easily communicate and understand what they are trying to convey.	did not only prepared us for the work life but it also prepared us for our own personal life communicating, I think it's the most important thing that I learnt in polytechnic	its builds the confidents the communication and all.
			"But do you trust yourself do you have confidence" Yeah I have		Yeah I am not afraid of this I can say that even later this is not anymore an issue for me.	when we came across these scenario based, I was a bit very agitated at beginning. I would say maybe, I don't feel the confidence lack	yeah I think by now absolutely yes. I think I developed this skill in polytechnic. Teamwork	that built relationships as we call it public relation and self-confidence of course after working
			which helped me to be confident when I am talking to other people		which it was at that time nothing for me, so easy because I got used to presenting in front of people I did not fear that I was going to present in front of people that I do not know or I was not afraid of any topic as soon I was prepared for it. I do not have that barrier of being shy anymore	However, I still personally do not feel very confident in new kind of things, lack	but by now, I will be doing my industry project next semester, I think I will be very comfortable with this skill.	
					so the services they provide help the students in gaining confidence		completing all the subjects of my bachelor degree so I think by now yeah I am able.	
					confident, I mean I know how to do a CV how to write it, and I am not afraid to send my CV to anyone. I am not afraid that they will refuse me because my CV was not good enough or having		So I think it helps you but I also think when you step outside the polytechnic I think you have the confidence to do	

Appendix (16)

I2 interview

Transcription and Open coding

Transcribed interview	Statements	Code
R: Do you think that the institution prepared you for the world of work? S: In my opinion yes, because how would I know by compering myself to graduates from other universities. I found myself during the training courses of the university that I am able to communicate better with employers, I have what they are looking for in communication , team work , writing abilities and the other employability skills and most importantly the communication and team work aspect.	my opinion yes because how would I know by compering myself to graduates from other universities	Positive affirmation
	training courses	Curricular support
	University	Supporter
	I am able	Positive affirmation
	communicate	Communication skill
	better	Positive affirmation
	employers	Beneficiary
	I have what they are looking for	Positive affirmation
	communication	Communication skill
	team work	Team work skill
	writing abilities	Communication skill
	other employability skills	Employability skills
	communication	Communication skill
	team work	Team work skill
R: Very good, if I will ask you to reflect on certain skills. Starting with communication skill and I want you to remember when you first started at the polytechnic and now and try to compare S: mmm. I'd like to say, that now I am a better communicator definitely, when I came to polytechnic at the start I wasn't as good communicator because I've always assumed that people are at the same level with me say even the words I've used were the same for all people even if they weren't engineers form business or logistics but now I am using just like simple key communication and during my last course which was thinking outside the box it was really effective . I am communicating really well with even business students, logistics students and IT students	I am a better	Positive affirmation
	communicator	Communication skill
	Definitely	Positive confirmation
	Polytechnic	Supporter
	At the start	Early years
	I wasn't as good	Negative perception
	I've always assumed that people are at the same level with me	Perception
	even the words I've used were the same for all people	Communication skill
	engineers	Engineering discipline
	business	Business discipline
	Logistics	Logistics discipline
	now I am using just like simple key communication	Communication skill
	last course which was thinking outside the box	Curricular support
	really effective	Positive affirmation
	communicating	Communication skill
	really well	Positive affirmation
	Business	Business discipline

Vassiliki Papatsiba
I don't know if this will prove interesting or important but there is an element of comparison in her approach. At the same time the argument here (maybe because it is a
Reply

Vassiliki Papatsiba
I would call this temporality or something that is closer to Pay such as 'change over time'. I think this could be interesting to pick up.
Reply

Vassiliki Papatsiba
social comparison emerges again here.
Reply

	IT	IT discipline
	Logistics	Logistics discipline
R: ok, think about your skills related to working collaboratively in a group when you started here at the polytechnic and tell me about your beliefs regarding that skill now? Working in a team. S: when I graduated from school I wasn't used to group work we did not do a lot of group work but when I came here to the polytechnic , even though I am the smart guy in the group but I always believed that I had the biggest part as I was good at English , so I had to review what other wrote , I do the most important parts and the hardest part and everything , but right now I just like have the confidence in my team mates I do my job and check the others work but I believe I am a better team worker now because I don't know I am like calm while being in a team which I wasn't in the beginning. **R: So now if you are asked to work with a team consisting of members that you never met** S: I will be comfortable doing this because actually this is what I learnt in the last course I was kept in a group younger than me like around 2, 3 years with different backgrounds with different majors and it was a really effective group we had a good grade actually.	School	Foundation
	I wasn't used to group work we did not do a lot of group work	Negative perception
	Group work	Team work skill
	polytechnic	Supporter
	even though I am the smart guy in the group	Positive affirmation
	but I always believed that I had the biggest part	Positive affirmation
	I was good at English, so I had to review what other wrote, I do the most important parts and the hardest part and everything	Communication skill
	I was good at English	Positive affirmation
	I just like have the confidence in my team mates	Positive affirmation
	I do my job and check the others work	Learning skill
	but I believe I am a better	Positive affirmation
	team worker	Team work skill
	I am like calm while being in a team	Positive affirmation
	I wasn't in the beginning.	Negative perception
	Beginning	Early years
	I will be comfortable doing this	Positive affirmation
	this is what I learnt in the last course	Curricular support
	really effective group we had a good grade actually	Positive affirmation
	group younger than me like around 2, 3 years with different backgrounds	Peer support
R: Okay think about your analytical skills when you started here and tell me about that skill now. S: In my opinion my analytical skills are really better now specially	In my opinion my analytical skills are really better now	Positive affirmation
	analytical skills	Analytical skills
	English courses and even some engineering courses	Curricular support

Vassiliki Papatsiba
are you sure about this? It is about his perception of ability and how this places in an 'academic' leadership kind of position within the group of peers
Reply

Vassiliki Papatsiba
perhaps you might need to differentiate between positive affirmation of one's abilities etc and this of others.
Reply

Vassiliki Papatsiba
change over time?
Reply

Vassiliki Papatsiba
change over time?
Reply

analytical writing during the English courses and even some engineering courses we really focus on analytical writing and how it should be made and even we had workshops to implement it in the senior project I am doing right now, I don't think that I had this skill before university because at a level of schools not, my school wasn't so focused on analytical writing unlike descriptive or the other types. **R: Ok if you are asked to work in a project that you never faced something similar previously and you've been asked to propose a solution given that you have to benchmark with international practices guidelines, is that hard for you?** S: Actually I am doing it right now for my senior project I thought it would be much harder **R: When you started?** S: Yeah **R: But what made you start** S: What made me start? **R: A requirement of a course, but have you felt that you might struggle or?** S: I thought that 'how can I say this' I believe that I had the good knowledge of how to look for information due to the courses and what made me chose or start to work at this project is that the company I am working with is a charity nongovernmental NGO, so basically like its both good work and learning the design and dealing with venders dealing with standards and with the important stuff in one project **R: Which will require analytical skills** S: Yeah that's right	workshops to implement it in the senior project I am doing right now	Curricular support
	analytical writing	Analytical skills
	I don't think that I had this skill before university	Negative perception
	at a level of schools not	Foundation
	My school	Foundation
	because at a level of schools not, my school wasn't so focused on analytical writing unlike descriptive or the other types.	Negative perception
	analytical writing	Analytical skill
	descriptive	Communication skill
	I am doing it right now for my senior project I thought it would be much harder	Positive affirmation
	Actually, I am doing it right now for my senior project	Positive affirmation
	Senior project	Curricular support
	I thought it would be much harder	Presumption
	I believe that I had the good knowledge	Positive affirmation
	of how to look for information	Learning skill
	due to the courses	Curricular support
	working with is a charity nongovernmental NGO	Beneficiaries
	what made me chose or start to work at this project	Commencement
	like its both good work and learning	Interest
	the design and dealing with venders dealing with standards and with the important stuff in one project	Interest

Vassiliki Papatsiba

I wondered what you will do with this code once mixed with other 'negative perceptions'. Clearly it depends on your perspective. If you are trying to ascertain the changes that

Reply

Vassiliki Papatsiba

Reply

	Yeah, that's right	Positive affirmation
R: Tell me about your beliefs regarding your capabilities in identifying your skill gap your problems and how do you developed those the gap that, do you have any gap do you feel that you need to work on some of the skills? **S:** Yeah, of course being a nearly fresh graduate its all about gaps at the work place, I have been to many companies for the training of around 6 months and the gap is very huge it's a different system to different university from a different country so graduates like have all those gaps between them well some excellent in theoretical knowledge some excellent in skills, what I think I could do to develop myself professionally is by first of all reading continuing to study and by listening to others or actively listening to others gaining from experience and helping them because in my opinion when you help someone he would always help you back **R: So you have the ability to identify the gap and you have tactics to tackle the gaps you are saying?** **S:** Yeah	Yeah, of course being a nearly fresh graduate its all about gaps at the work place	Presumption
	I have been to many companies for the training of around 6 months and the gap is very huge	Gap
	it's a different system to different university from a different country	Variation
	graduates like have all those gaps between them well some excellent in theoretical knowledge some excellent in skills	Gap
	reading	Learning skill
	continuing to study	Learning skill
	actively listening to others gaining from experience	Learning skill
	helping them	Learning skill
	in my opinion when you help someone he would always help you back	Perception
	Yeah	Positive affirmation
R: Ok, how did the institution helped you to enhance those beliefs about yourself now that you are confident you feel better you, comfortable, you can work with group, you can present yourself better, you are comfortable to work in unfamiliar situations, how did the institution helped you, what did the institution do **S:** First of all I wasn't aware that I had those skills to start with. So okay I thought that I was good in writing	I wasn't aware that I had those skills to start with	Perception
	I thought that I was good	Perception
	writing but in what writing	Communication skill
	I was good in I didn't really know	Negative perception
	I could talk really good English because I was in private school but to what extent do other people understand me or how I could	Positive affirmation
	good English	Communication skill
	I was in private school	Foundation
	When I started at university	Early years
	Graduation point	Final years

Vassiliki Papatsiba
a good start but what will you do with this code?
Will you say; prior assumptions about the workplace were x, y, and so on?
Reply

Vassiliki Papatsiba
what will you do with this code?
Reply

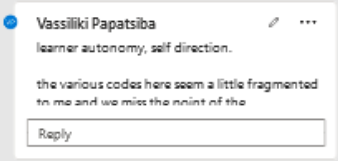
Vassiliki Papatsiba
change over time while in HE
Reply

but in what writing I was good in I didn't really know, I could talk really good English because I was in private school but to what extent do other people understand me or how I could… so what is the difference between like when I started at the university at this point my graduating point, its that I was able to know my skills **R: How did the institution helped you to know** S: By projects, by reflections, by presentations, by interviews and all those things **R: So you think that the institution promoted those beliefs in you?** S: Yeah	its that I was able to know my skills	Positive affirmation
	projects	Curricular support
	reflections	Curricular support/ reflection
	presentations	Curricular support
	interviews	Curricular support
	Yeah	Positive affirmation
R: Okay, do you feel that you are able to showcase those skills in front of the employers? S: Of course **R: Yes?** S: Yeah, I have already did this **R: Do you feel that the institution supported you in showcasing those skills, so you are doing that in front of the employer, did the institution help you to showcase? Present yourself and your skills in front of the employers** S: To be frank with you the institution has the support but I did not ask for it, because I have known some people here and there like other than courses or classes there is a CEC career and employment centre, but I actually never went for help **R: You never went for the help okay.**	Of course	Positive affirmation
	Yeah, I have already did this	Positive affirmation
	To be frank with you the institution has the support,	Perception
	but I did not ask for it	Uninterested
	The institution	Supporter
	CEC career and employment centre	Non-curricular support
	but I actually never went for help	Uninterested
R: Okay there are follow up questions not there, but I will, those questions already asked in the survey I will be ask in depth **R: What about PBL, don't you think PBL helped to improve your**	during my first 2 years	Early years
	I did not think it was a good thing	Negative perception
	during my third year	Final years
	we had this course to design a car from A-Z	Curriculum support
	completely PBL	Teaching method

Vassiliki Papatsiba
again here there is a social dimension that emerges
Reply

Vassiliki Papatsiba
Targeted student support systems not used. This is important for a study that focuses on employability.
Reply

employability skills, you can be frank as much as you want, what do you think about PBL, the teaching and learning method at the institution? **S:** To be frank with you, during my first 2 years, I did not think it was a good thing, but during my third year, we had this course to design a car from A-Z so it was completely PBL, in this year I have learnt how to research and I have learnt how to look for reliable and credible information, and it was really hard because it's a different concept from one person to another with some laws but undefine. So after the third year if I could say I am board to stay at class. I don't like to stay at class ~~any more~~ because I believe I could study anything at home or in my free ~~time when~~ I chose where I chose **R: So you feel you that can self-direct your learning more** **S:** Yeah **R: Ok, and if you are encountered with something to learn you can learn it by yourself now.** **S:** Yeah **R: Okay, and the first 2 years you felt this is the right teaching and learning method** **S:** Its not that, but I did not feels like it was real PBL **R: Did you feel that you wanted more knowledge, more theories to be taught to you than** **S:** Lets see, in the first year I didn't remember any PBL, but during the second year the whole course was on the tutor while the project was problem-based learning, so this is when I was like getting to know what it was PBL but during the first year its taught courses	year I have learnt how to research and I have learnt how to look for reliable and credible information	Research skills
	it was really hard because it's a different concept from one person to another with some laws but undefine	Negative perception
	So after the third year	Final years
	if I could say I am board to stay at class	Uninterested
	I don't like to stay at class any more	Uninterested
	I believe I could	Positive affirmation
	study anything at home or in my free ~~time when~~ I chose where I chose	Self-management skill
	Yeah	Positive affirmation
	Yeah	Positive affirmation
	I did not feels like it was real PBL	Negative perception
	in the first year	Early years
	I didn't remember any PBL	Negative perception
	but during the second year	Early years
	the whole course was on the tutor while the project was problem-based learning	Teaching methods
	so this is when I was like getting to know what it was PBL	Perception
	but during the first year	Early years
	its taught courses	Teaching method
R: What about the final year project, do you think that helped	Yeah	Positive affirmation
	I know how	Positive affirmation



you to develop your employability skills or improve them **S:** Yeah, because right now I am working with a team of one PHD holder Dr Fatima Alblushi, I am working with old engineers with young engineers and experienced people, I am working with so many types of people that I know how to communicate with, I know how to work with them in a team properly, how to actively listen to them, because after all they are the ones with experience and they are the clients so I have learnt many things from the co-staff how can I say this 'I know that I had the skill but now I know how good I am at it'	I am working with so many types of people that I know how to communicate with,	Communication skill
	I know how	Positive affirmation
	Properly	Positive affirmation
	I know how to work with them in a team properly	Team work skill
	how to actively listen to them	Communication skill
	all they are the ones with experience and they are the clients	Perception
	I have learnt many things	Learning skill
	learnt many things from the co-staff	Industrial support
	'I know that I had the skill but now I know how good I am at it'	Positive affirmation
R: What about the extracurricular activities are you involve in any of the activities in the polytechnic **S:** No **R: Don't you think that it will help employability skills?** **S:** I don't know I have never been there	I don't know I have never been there	Perception
R: Okay, reflection, you are doing a lot of reflection in classes where you are asked to reflect on an experience that you lived or a learning or something happen to you so do you think reflection helps in promoting the sense of self-efficacy about your self and help in improving your employability skills? S: In my opinion yes, because during most reflections I have known that oh I am good at communication, so I like reflect on communication, oh I am good at this skill or that skill so it helps in making you aware of your skills and weaknesses and stands, so it was a good way actually.	In my opinion yes	Positive affirmation
	because during most reflections I have known that I am good	Positive affirmation
	I am good at communication skills	communication skills
	so I like reflect	Reflection
	oh I am good at this skill or that skill so it helps in making you aware of your skills and weaknesses and stands	Self-awareness
	it was a good way actually	Positive affirmation
R: What about academic advising, do you go to your advisor? **S:** I went for the first 2 years only	first 2 years	Early years
	I have never found any problem that I need my mentor to know	Perception

Vassiliki Papatsiba
again this confirms my comment n 14.
Reply

R: And don't you think that they can help you with your employability skills? S: Its not the employability skills part but I have never found any problem that I need my mentor to know mostly it is only by communication by emails about like what courses I have to take **R: That's it, academic progression** **R: Do you have certain academic staff members unofficially that they are your mentor that you seek their help, talk to them when you have an issue , head of school probably, programme manager** S: In my opinion Dr Christina head of school and Mr Adel. **R: They were helpful?** S: Yeah, very helpful specially Mr Adel **R: And do they identify issues with your skills that you need attend to** S: I think that whenever I wanted them its regarding classes or ~~courses~~ so it wasn't about skills	mostly it is only by communication by emails about like what courses I have to take	Academic progression
	In my opinion Dr Christina head of school and Mr Adel.	Informal advisor
	Yeah, very helpful	positive affirmation
	specially Mr Adel	Informal advisor
	I think that whenever I wanted them its regarding classes or ~~courses~~ so it wasn't about skills	Academic advising
R: Okay do you participate with BPSC and BPVC? S: I have participated in BPSC **R: BPSC do you think that helped you to enhance your employability skills?** S: One way or another yeah. By like communicating with different people different backgrounds	One way or another yeah	Positive affirmation
	I have participated in BPSC	Extra-curricular activities
	By like communicating with different people different backgrounds	Communication skills
R: What did the institution missed to implement in order to enhance those kind of beliefs about yourself S: In my opinion to be frank with you, if I will talk from my mechanical engineering aspect and now I will be completing, some courses you don't need the attendance in it so like how can I say this, I could study it at home, but I don't know if this is related to the question or not but as for like for my time management for	mechanical engineering	Engineering discipline
	some courses you don't need the attendance	Perception
	I could study it at home	Blended learning
	for my time management for example I have class at 12 and I live in Arad so it will take around 45 minutes to get ~~here and~~ 15 minutes to look for a park so it will take like around one and a half hour to get in class where the tutor just open a PDF and read from it	Time management

Vassiliki Papatsiba

learner autonomy has developed and the institution continues with class based lectures. So, blended learning and online resources would increase flexibility and meet students'

Reply