

**THE READINESS OF OPEN ACCESS POLICY
IMPLEMENTATION: A CASE STUDY WITHIN A
KUWAITI HIGHER EDUCATION INSTITUTE**

Zuwainah ALLAMKI

**Salford Business School
Centre for Digital Business
College of Business & Law**

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DEDICATION

This thesis is proudly dedicated to my loving son Rashid Karam (My Champion), for his patience and support during this journey and helping me to make this dream come true. A special dedication to my Parents, my mother Shamsa AL-Harthy who never ceased praying for me and wishing me all success and provided me with determination to move through all the stages of my life; my father Rashid AL-Lamki (Allah's mercy be upon him) who formed part of my vision and inspired me in achieving my goal.

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Table of Contents

CHAPTER ONE INTRODUCTION TO THE RESEARCH.....	3
1.0 BACKGROUND	3
1.1 RESEARCH AIM	7
1.2 RESEARCH OBJECTIVES	7
1.3 RESEARCH QUESTIONS	7
1.4 SIGNIFICANCE AND PURPOSE OF THE STUDY	8
1.5 ETHICAL APPROVAL.....	8
1.6 RESEARCHER’S BACKGROUND	9
1.7 THESIS STRUCTURE	10
CHAPTER TWO LITERATURE REVIEW	11
2.0 INTRODUCTION	11
2.1 DEFINITION OF OPEN ACCESS.....	11
2.2 OPEN ACCESS ADVANTAGES	13
2.3 OA CHALLENGES.....	15
2.3.1 Awareness	15
2.3.2 Self-archiving.....	16
2.3.3 Copyright considerations.....	18
2.4 OPEN ACCESS POLICY IN ACADEMIC INSTITUTIONS.....	20
2.5 OPEN ACCESS AND READINESS TO CHANGE.....	22
2.5.1 What is Change?	22
2.5.2 Why readiness?	24
2.6 A THEORY OF ORGANIZATIONAL READINESS FOR CHANGE (TORC)	24
2.7 FACTORS INFLUENCING READINESS FOR OPEN ACCESS POLICY IMPLEMENTATION	25
2.7.1. Management support.....	28
2.7.2 Type of OA policy.....	29
2.7.3 Government influence and funding.....	31
2.7.4 Organisational resources.....	33
2.7.5 Organisational Culture.....	35
2.8 OPEN ACCESS POLICY IN DEVELOPING COUNTRIES.....	36
2.9 SUMMARY.....	38
CHAPTER THREE RESEARCH CONTEXT	39
3.0 INTRODUCTION	39
3.1 THE STATE OF KUWAIT.....	39
3.2 PUBLIC ORGANISATIONS IN KUWAIT.....	41
3.3 KUWAITI ORGANISATIONAL CULTURE IN PUBLIC ORGANISATIONS.....	42
3.4 PUBLIC HIGHER EDUCATION INSTITUTIONS IN KUWAIT.....	43
3.5 KUWAIT HIGHER EDUCATION INSTITUTES AND INFORMATION SYSTEMS	44
3.6 THE PUBLIC AUTHORITY FOR APPLIED EDUCATION AND TRAINING (PAAET).....	44
3.6.1 Segregation.....	46
3.7 PRIMARY TECHNOLOGICAL DEVELOPMENTS IN PAAET	46
3.8 PAAET'S LIBRARIES	47
3.9 SUMMARY.....	48
CHAPTER FOUR RESEARCH METHODOLOGY.....	49
4.0 INTRODUCTION	49
4.1 DEFINITION OF RESEARCH	49
4.2 RESEARCH PHILOSOPHY	50
4.3 RESEARCH PARADIGM	50
4.3.1 Positivist Paradigm.....	51
4.3.2 Interpretive Paradigm.....	53

4.3.3 <i>Critical paradigm</i>	56
4.4 PARADIGM CHOICE.....	56
4.5 RESEARCH METHODS.....	59
4.5.1 <i>Qualitative research Method</i>	60
4.5.2 <i>Quantitative Research Method</i>	60
4.5.3 <i>Qualitative and Quantitative Approach (Mixed methods)</i>	61
4.6 RESEARCH STRATEGY.....	64
4.6.1 <i>Case study Research</i>	66
4.7 RESEARCH DESIGN IMPLEMENTATION.....	70
4.7.1 <i>Interviews</i>	71
4.7.2 <i>Questionnaire</i>	72
4.8 RESEARCH'S DATA COLLECTION TECHNIQUES.....	76
4.8.1 <i>Interview Protocol and Pilot</i>	77
4.8.1.1 <i>Interviews Sampling</i>	79
4.8.2 <i>Questionnaire Design and Pilot</i>	82
4.8.2.1 <i>Questionnaire sampling</i>	90
4.9 DATA ANALYSIS TECHNIQUES.....	91
4.10 SUMMARY.....	95
CHAPTER FIVE RESEARCH FINDINGS.....	96
5.0 INTRODUCTION.....	96
5.1 PERCEPTIONS OF OPEN ACCESS.....	97
5.1.1 <i>PAAET's perception of open access</i>	97
5.1.2 <i>Open Access Benefits</i>	99
5.1.3 <i>The role of Open Access or Open Access policy practice in PAAET</i>	101
5.2 POLICIES AND PROCEDURES.....	103
5.2.1 <i>Management encouragement for policy implementation</i>	103
5.2.2 <i>Government Influence</i>	106
5.2.3 <i>Type of open access policy</i>	107
5.3 PAST EXPERIENCE.....	109
5.3.1 <i>Resisting change</i>	109
5.3.2 <i>Language</i>	111
5.3.3 <i>IT Competence</i>	111
5.4 ORGANISATIONAL RESOURCES.....	112
5.4.1 <i>Technical Resources</i>	113
5.4.2 <i>Information Professionals</i>	114
5.5 ORGANISATIONAL STRUCTURE.....	115
5.5.1 <i>Segregation</i>	116
5.6 INSTITUTIONAL CULTURE.....	118
5.6.1 <i>Bureaucracy</i>	118
5.6.2 <i>Favouritism or Wasta</i>	119
5.7 ORGANISATIONAL TENSIONS.....	120
5.7.1 <i>Interdepartmental Collaboration</i>	120
5.7.2 <i>Budget and funding</i>	121
5.8 OVERCOMING CHALLENGES.....	122
5.9 QUANTITATIVE ANALYSIS.....	123
5.9.1 <i>Perceptions of OA and the need for an OA policy in PAAET</i>	124
5.9.2 <i>Policies and procedures</i>	126
5.9.3 <i>Organisational resources</i>	133
5.9.4 <i>Organisational tensions</i>	135
5.9.5 <i>Overcoming Challenges</i>	138
5.10 SUMMARY.....	139
CHAPTER SIX DISCUSSION.....	140

6.0 INTRODUCTION	140
6.1 A THEORY OF ORGANISATIONAL READINESS FOR CHANGE	140
6.2 PERCEPTIONS ON OPEN ACCESS	144
6.2.1 PAAET's perception of OA and OA's benefits	145
6.3 POLICIES AND PROCEDURES	149
6.3.1 Management encouragement for policy implementation	149
6.3.2 Government Influence	153
6.3.3 Type of open access policy	155
6.4 PAST EXPERIENCE	158
6.4.1 Resisting change	158
6.4.2 Language	161
6.4.3 IT Competence	162
6.5 ORGANISATIONAL RESOURCES	163
6.5.1 Technological Resources (IT infrastructure and Support)	164
6.5.2 Information Professionals	165
6.6 ORGANISATIONAL STRUCTURE	167
6.6.1 Gender Segregation	167
6.6.2 OA Society	169
6.7 ORGANISATIONAL CULTURE	171
6.7.1 Bureaucracy	171
6.7.2 Favouritism or Wasta	172
6.8 ORGANISATIONAL TENSIONS	173
6.8.1 Interdepartmental Collaboration	174
6.8.2 Budgets and Funding	175
6.9 OVERCOMING CHALLENGES	176
6.10 REASONS FOR DECLINING TO RESPOND TO SOME QUESTIONS	177
6.11 SUMMARY	178
CHAPTER SEVEN CONCLUSIONS AND RECOMMENDATIONS	180
7.0 INTRODUCTION	180
7.1 ACHIEVING THE AIM AND OBJECTIVES OF THE STUDY	181
7.2 ANSWERS TO RESEARCH QUESTIONS	183
7.3 CONTRIBUTIONS TO KNOWLEDGE	183
7.4 CONTRIBUTION TO PRACTICE	188
7.4.1 Promoting awareness	188
7.4.2 Senior Management's encouragement for policy implementation	189
7.4.3 Government Support	189
7.4.4 Mandating an Open Access Policy	190
7.4.5 Implementing and Developing Technological Systems, Maintenance and Training	191
7.4.6 Restructuring the Organisation	192
7.4.7 Increase Intensive English Language Courses	193
7.4.8 Encourage Interdepartmental Collaboration	193
7.5 LIMITATIONS AND STRENGTHS OF THE RESEARCH	193
7.6 REFLECTION ON METHODOLOGY	195
7.7 RECOMMENDATIONS FOR FUTURE RESEARCH	195
7.8 REFLECTIONS ON THE RESEARCH FROM THE INTERPRETIVE PERSPECTIVE	196
7.9 PERSONAL REFLECTIONS ON THE RESEARCH PROCESS	201
7.10 CONCLUDING REMARKS	201
REFERENCES	203
APPENDIX 1 UNIVERSITY OF SALFORD RESEARCH ETHICAL APPROVAL	221
APPENDIX 2 PAAET ETHICAL APPROVAL LETTER FOR FIELD STUDY	222
APPENDIX 3 PAAET INTERVIEWS	223
APPENDIX 4 CONSENT FORM	225

APPENDIX 5	QUESTIONNAIRE PAAET/KUWAIT.....	227
APPENDIX 6	QUESTIONNAIRE RESULTS.....	233
APPENDIX 7	QUESTIONNAIRE/ LITERATURE JUSTIFICATION.....	236
APPENDIX 8	PROFILES OF PAAET'S COLLEGES.....	240
APPENDIX 9	ORGANIZATIONAL STRUCTURE OF PAAET	242

LIST OF TABLES

Chapter	Table	Page
Chapter Four	Table 1: Positivist and Interpretive Paradigm comparison adapted after Chua (1986).	58-59
	Table 2: Relevant situations for research strategies (Oates, 2006; Yin, 2009).	65
	Table 3: Questionnaire's Closed-ended questions "Advantages and Disadvantages" (Frankfort-Nachmias and Nachmias, 1992; Neuman, 2004).	75
	Table 4: Questionnaire's Open-ended questions "Advantages and Disadvantages" (Frankfort-Nachmias and Nachmias, 1992).	76
	Table 5: PAAET's Interviews Sample	81
	Table 6: Pre-test and pilot study stages	89
	Table 7: Questionnaire sampling (Departments and Colleges)	90
Chapter Five	Table 8: Interview questions "Perceptions of OA"	97
	Table 9: Interview Questions "Policies and procedures"	103
	Table 10: Interview Question "Past experience"	109
	Table 11: Interview Questions "Organisational resources"	113
	Table 12: Interview Questions "Organisational structure"	115
	Table 13: Interview Questions "Organisational Culture"	118
	Table 14: Interview Questions "Organisational Tensions"	120
Table 15: Interview Questions "Overcoming Challenges"	122	
Chapter Seven	Table 16: Summary of reflections on the research using Klein & Myers' principles	196-200

LIST OF FIGURES

Chapter	Figure	Page
Chapter Two	Figure 1: A Theory to Organisational Readiness of Change (Weiner, 2009)	27
Chapter Three	Figure 2: Map of the State of Kuwait	40
Chapter Four	Figure 3: Questionnaire design process (Frazer and Lawley, 2000) modified by the researcher according to (Oates, 2006)	84
Chapter Six	Figure 4: OA Policy need in PAEET colleges and institutes	170

LIST OF CHARTS

Chapter	Chart	Page
Chapter Five	Chart 1: OA Awareness	125
	Chart 2: Policies and procedures (Research Output)	127
	Chart 3: Policies and procedures (Institution Collaboration)	127
	Chart 4: Policies and procedures (Government Influence)	128
	Chart 5: Policies and procedures (Mandated Policy)	129
	Chart 6: Policies and procedures (Voluntary Policy)	129
	Chart 7: Policies and procedures (Self-archiving)	130
	Chart 8: Policies and procedures (Library Agreement)	131
	Chart 9: Policies and procedures (Copyright Concerns)	131
	Chart 10: Policies and procedures (Deposit Published articles)	132
	Chart 11: Policies and procedures (PAAET's need for an OA Policy)	133
	Chart 12: Policies and procedures (PAAET's need for an OA Policy)	133
	Chart 13: Organisational resources (IT Infrastructure)	134
	Chart 14: Organisational resources (Information Professionals)	135
	Chart 15: Organisational tensions (Reduce Costs)	136
	Chart 16: Organisational tensions (Research Funds)	136
	Chart 17: Organisational tensions (Deposit funded Research)	137
	Chart 18: Organisational tensions (Financial barrier)	138
	Chart 19: Overcoming Challenges	138

GLOSSARY OF TERMS AND ABBREVIATIONS

AUK	American University of Kuwait
BOAI	Budapest Open Access Initiative
CERN	Conseil Européen pour la Recherche Nucléaire
CTA	Copyright Transfer Agreement
GCC	Gulf Cooperation Council
GUST	The Gulf University of Science and Technology
HE	Higher Education
HSCL	Health Science Center Library
ICSU	International Council of Scientific Unions
ICT	Information and Communication Technology
IFLA	The International Federation of Library Associations
IR	Institutional Repository
IS	Information Systems
ISI	Institute for Scientific Information
JISC	The Joint Information Systems Committee
KISR	Kuwaiti Institute for Scientific Research
KMBS	Kuwait-Maastricht Business School
KU	Kuwait University
MDG	Millennium Development Goals
MIT	Massachusetts Institute of Technology
OA	Open Access
OAI	Open Archive Initiative
OA Policy	Open Access Policy
OPAC	Online Public Access Catalog
ORC	Organisational Readiness for Change
PAAET	Public Authority for Applied Education and Training
RAE	The Research Assessment Exercise
REF	The Research Excellence Framework
TORC	Theory of Organisational Readiness for Change
UNDP	The United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization

Definitions

Open Access (OA): Free, immediate and unrestricted access to full texts published research papers online, to ensure that research can be accessed, read and built upon in the most effective way for a richer research culture (Researcher's Definition).

Open Access Policy (OA Policy): Is also known as 'Green OA policy' or 'OA archives' not to be confused with 'OA publishing'. OA policy is applied to the researcher and not the publisher, as it offers the researcher a wider choice complying with the policy by publishing in either an OA or a fee-based journal, and self- archiving a copy of their article in an IR (Morrison, 2008).

Institutional repository (IR): where the authors deposit their research in a repository (database) and supported by their institution accordingly collecting together the research output of that institution in one place which is known as an 'Institutional Repository' (IR). In order to have tangible markers of an academic institution's research activities thus increasing the institution's status, visibility, and dissemination among the international academic community (Researcher's Definition).

Theory of Organisational Readiness for Change (TORC): The theory grants shape readiness perceptions to organizational structures and resource. In other words, organizational members take into consideration the organization's structural assets and insufficiencies in formulating their change ability judgments (Wiener, 2009).

Change management: the process of continually renewing an organization's direction, structure, and capabilities to serve the ever-changing needs of external and internal customers (Moran and Brightman, 2001, p.111).

Readiness: The state of being fully prepared for something or willingness to do something or the quality of being immediate, quick, or prompt (Oxford Dictionaries, 2013). Another definition is a state of being both psychologically and behaviorally prepared to take action (i.e., willing and able) (Weiner, 2009, p. 2).

Organisational culture: The values and behaviors that contribute to the unique social psychological environment of an organization. Organisational culture includes an organisation's expectations, experiences, philosophy, and values that hold it together, and is expressed in its self-image, inner workings, interactions with the outside world, and future expectations. It is based on shared attitudes, beliefs, customs, and written and unwritten rules that have been developed over time and are considered valid (Business Dictionary, 2013).

Segregation: separation of the sexes, which can be enforced by rules, laws, and policies. It can be caused by societal pressures, historical practices, and socialized preferences. Literally, sex segregation can be physical and spatial separation by sex, but the term is also used for the exclusion of one sex from participation in an occupation, institution, or group. Sex segregation can be complete or partial, as when members of one sex predominate within, but do not exclusively constitute, a group or organization (Wikipedia, 2013).

Favoritism or "Wasta": is a "force in interpersonal networks, every significant decision, and connections that pervade all aspects of business and social life" (Hutchings and Weir, 2006). Another definition: is favoring a person not because he or she is doing the best job but rather because of some irrelevant feature in a group. Favoritism can be demonstrated in hiring, honoring, or awarding contracts (Nadler and Schulman, 2006).

Developing country: is a term generally used to describe a nation with a low level of material well being (not to be confused with [third world countries](#)). Since no single definition of the term developed country is recognized internationally, the levels of development may vary widely within so-called developing countries. Some developing countries have high average standards of living (Princeton University, 2013).

Abstract

Open access (OA) policy is becoming an increasingly important element of information management initiatives in academic institutions. The aim of this research is to explore the perception towards OA and identify the factors that influence the readiness of OA implementation in Kuwaiti higher education institutions. A single exploratory case study approach is adopted within one institution, the Public Authority for Applied Education and Training (PAAET). This study analyses data collected through a questionnaire from 154 stakeholders and 16 semi-structured interviews undertaken in PAAET, using the Theory of Organisational Readiness for Change (TORC).

This research makes contributions to knowledge in: a) understanding of organisational factors for potential IT adoption in Kuwaiti higher education institutions; b) potential for adoption of OA policies in developing countries; c) TORC use in OA policy applicability within the context of a developing country, a culture that has never been explored before; and d) generating rich insight into understanding OA policy readings of a Kuwaiti Academic Institution.

Practical contributions suggest that awareness of OA is still low in one Kuwaiti higher education (HE) institution (PAAET); however, the study participants were found to be supportive of the OA concept. These practical contributions are relying on long-term strategic steps such as: a) need for promotion of OA awareness; b) ownership of OA by senior management; c) government support at national level; d) management processes and OA policy; e) technical infrastructure needs; f) organisational restructuring; and g) interdepartmental collaboration. Some short-term proposals for action by the authorities in Kuwaiti higher education institutes are suggested, such as linking their websites to “The Create Change Organisation” and engaging in more international collaboration partnerships such as “Tempus”, which could help PAAET coordinate with other academic institutions through Open Innovation projects.

Keywords: Open access (OA), Open Access Policy (OA policy), Kuwait, Higher Education, technology adoption in developing countries, Public Authority for Applied

Education and Training (PAAET), Theory of Organisational Readiness for Change (TORC)

1.0 Background

The growth in available information and the development of electronic information resources in the last few decades have contributed to a shift in the learning process, information-seeking behaviour and information services in HE institutions. They have fundamentally changed the way scientific knowledge and research are disseminated (Zhang, 2007, p.232). The Internet has appeared as an influential network for global exchange and dissemination of knowledge (Kirsop, Chan, 2005). The emergence of the Open Access (OA) movement offered new opportunities for research societies that crave the latest information. New and effective methods of sharing knowledge have become an important resource for both organisations and for society as a whole.

In the mid-1600s the first true scholarly journals were started (*Philosophical Transactions of the Royal Society* was launched in 1665), and ever since that time academic authors and researchers have attempted to publish and disseminate the results of their efforts, for two main reasons: a) to advance academic progress in their subject area; and b) to establish rights over any academic knowledge that they may themselves have brought about (Swan and Brown, 2004b). Since then, scientific journals began to assist researchers to share their work quickly and widely, the aim being for researchers investigating the same problem to have access to the information they need. In the late 1990's the concept of open access emerged and could well be labelled as a "sea change", as individuals anticipated a revolution in traditional techniques of searching, accessing, and retrieving scientific information (Morton, 1997; Resh, 1998 cited in Gul, Shah and Baghwan, 2010). This movement culminated in 2007 when one of the world's oldest and second largest open-access archives 'arXiv.org' claimed to contain over 400,000 full-text articles. The

outstanding usage of arXiv in self-archiving pre-prints approaches 100% in some sub-disciplines, such as high-energy physics. The statistics suggest that in excess of half a million entries per day are downloaded from this archive, with over 45 million full-text downloads a year. Today we would call them Open Access (OA) archives, because their full-text contents are accessible free of charge and available online worldwide (Morrison, 2007).

Since 2008 we have witnessed the increasing acceptance of OA by institutions, libraries and some publishers, to the point that action has been taken by these parties towards achieving its implementation in practice (Gul, Shah and Baghwan, 2010). This reminds us that the idea of OA is not entirely a new concept in scholarly communication, although it has not been fully applied in every academic institution. Nonetheless, there are barriers to reaching or accessing information that is important in almost every academic institution. OA efforts such as those by the International Federation of Library Associations (IFLA) have been trying to overcome these constraints by considered introduction of OA initiatives and policies (Pinfield, 2010).

Lack of OA research in developing countries

Researchers in developing countries often have little or no access to the published research literature due to the high cost of journal subscriptions and inadequate and expensive distribution mechanisms (Arunachalam, 2003; Cetto, 2000 cited in Chan, Kirsop and Arunachalam, 2005, p.2). Most new knowledge is largely produced from the richer and more advanced countries, where spending on research and development is highest. Conversely, research output in less advanced countries is to the result of weak institutional infrastructures, poor funding, the absence of interaction of researchers to form a possible research community, and the resulting isolation and narrowness of a research community within which ideas can be exchanged, leading to limited contribution to the world's knowledge pool (Arunachalam, 1992; Harris, 1996 cited in Chan, Kirsop and Arunachalam, 2005, p.2).

Therefore, academic institutions and research libraries are seeking to meet the increasing demands of their users to engage with the rapid growth in global scholarly activity through

OA policies. The implementation of an OA policy or “Green OA” will increase the potential range of publications that academic institutions produce and help researchers reach international level (Anbu, 2011). OA policy is driven by the need to grow an institution’s archive or institutional repository (IR), to ensure to preserve records of evidence of significant research in order to build a profile of the institution (Swan, 2005).

Need for research in Open Access policy readiness

However, since there are many factors that can influence the readiness of an OA policy for implementation and the creation of an OA culture, which must be considered in such initiatives (Smith, 2005; Swan and Brown, 2005; Baker, 2010; Gul, Shah and Baghwa 2010; Pinfield, 2010). The available literature indicated a lack of research into investigating readiness factors that might influence the implementation of an OA policy in the context of HE institutions, and specifically in Kuwait. This is an important area for research since countries such as Kuwait cannot rely on their oil reserves to sustain their economic ability to function, or meet the increasing need for developing countries to extend their knowledge resources.

Need to study OA in PAAET in Kuwait

The State of Kuwait is one of the developing countries that has recognised the importance of the role of information technology in public organisations; the government has supported such organisations in improving their performance to meet the Millennium Development Goals (*Kuwait Times*, 2011). The public organisations and educational institutions in Kuwait, such as Kuwait University (KU) and PAAET, are required to respond to these Millennium Goals by developing and improving their educational standards in order to compete in the international arena (Ibrahim, 2008). One of the most important advantages of reaching these goals is collaboration and cooperation among HE institutions in Kuwait, mainly between KU and PAAET, by gaining and providing unrestricted access to research. Bosc and Harnad (2005) stated that progress in research is based on a worldwide collaborative, cumulative and self-corrective cycle of publishing, accessing and using research findings in order to generate further findings, applications and publications. Magara, (2002, p.241) argued that digital libraries and electronic technologies contribute to collaboration between HE institutions. Since effective OA

policy can result in better performance for academic institutions, it is important to see the level of readiness in implementing such initiatives in Kuwaiti HE institutions, to improve the general organisational research outcomes. It is also important in order to develop the present academic experience with regards to introducing OA as well as their capability for conducting research, since no studies have been carried out regarding Kuwait in particular in this area. Political and business-related issues including the cultural context should be addressed (Swan, 2005). There has been effective discussion in the literature emphasising cultural issues; Pinfield (2003) states that cultural change will be necessary before self-archiving becomes the norm. It is therefore important to explore perceptions of OA and identify the factors that affect the readiness of OA policy implementation in order to enable the HE authority to take necessary action to facilitate an effective OA culture for future OA policy implementation and practice in PAAET.

In particular, Kuwait has a relatively young academic culture, developed during the last century. There is also a division between general institutions and one of the main institutions that provides applied education and training: this researcher's sponsor, PAAET. This institution is keen to explore the potential of OA and has offered itself as a case study for this work.

It can be argued that the perceptions of management and academic staff are important in measuring their awareness of OA; they can help to identify some of the factors that might influence readiness for OA implementation. Therefore, the focus of this research is to explore and analyse perceptions of OA and to identify the factors that influence the readiness of OA policy implementation in a HE institution in Kuwait. The conceptual framework is narrowed down by using the contextual factors proposed by the Theory of Organizational Readiness for Change (TORC) (Wiener, 2009). TORC provides a foundation to identify the factors that affect and influence PAAET's readiness for OA implementation. The literature indicates that the best approach is a comprehensive investigation of an organisation's readiness for overall change before any attempt to implement such change is made; such an investigation can reveal factors about the potential success or otherwise of the intended programme or, in this case, policy (Smith, 2005). It is also important for the institution to depend on its authority structure as well as

the readiness of different groups of faculty to endorse OA in the institution (Baker, 2010). In order to achieve successful OA policy implementation, and to increase the success rate, the needed measures must be commenced with investigation of the organisational readiness, followed by steps to increase the readiness should it be found to be sub-standard. For institutions to implement OA policies and set up institutional repositories (IR), a number of issues must be resolved. These include organisational issues such as organisational culture, structure and resources. Institutions and authors highlight the need for more research and understanding of the possible benefits and barriers and other indications of readiness before the implementation process. For example, management costs and resources are involved, and other OA issues remain unresolved (Swan et al., 2005).

1.1 Research Aim

The aim of this research is to identify the factors affecting the readiness for OA policy implementation within the Kuwaiti HE institution, PAAET.

1.2 Research Objectives

1. To review the related literature on OA policy to establish a theoretical research framework.
2. To explore the perception of Kuwaiti HE institution PAAET stakeholders towards OA.
3. To identify the factors that affects the readiness of OA policy implementation in PAAET.
4. To provide recommendations to PAAET on establishing an effective OA policy.

1.3 Research questions

To achieve the aim and objectives of the research, the following research questions were explored and answered:

Q1: What are the perceptions of stakeholders in respect of OA in PAAET?

Q2: What factors affect the readiness of OA policy implementation in PAAET?

Q3: How do these factors affect the readiness of OA implementation in PAAET?

Q4: Why are these factors present in PAAET?

1.4 Significance and Purpose of the Study

The purpose and need for this study has arisen from the ever-increasing importance of OA policy in academic institutions. Many studies have been conducted in many organisations on OA policy in developed countries. However, there is a lack of comprehensive research about OA policy in public HE institutions in developing countries in general, and in Kuwait in particular. It was therefore important in this research to identify the factors that affect the readiness of the policy implementation of OA initiatives in a Kuwaiti public HE institution. Some research carried out in Kuwaiti public organisations has identified that certain major managerial problems are related to cultural norms and practices of employees, together with government policies and priorities (Al-Kazemi and Ali, 2002); this research is calling for more studies, and given that OA is over a decade old a fresh look at this sector is needed. Such issues might therefore also affect the readiness of OA policy implementation within an academic community. Thus, exploring perceptions towards OA and identifying the issues that can influence the readiness of OA policy implementation in regards to PAAET this might well benefit the authorities by making them aware of these issues in their public academic institutions.

1.5 Ethical Approval

Ethics are moral values with standards of behaviour that monitor choices about participants' performance and their relations with others (Saunders *et al.*, 2009).

Ethical approval for this research was granted by the Research Ethics Panel at the University of Salford on 8 April 2011. The following documents were attached to the ethical approval form:

1. A letter of consent was handed out to participants in both English and Arabic, explaining that participation is voluntary and refusal to co-operate will have no bearing on their position in PAAET. The letter also had a clear affirmation of the confidentiality of any information provided by the participants. There is no pressure to attend the interview, and no pressure on them to answer all the questions.
2. The researcher will follow the guidelines of the IFLA Code of Ethics of the Library Association (UK). Although she is not a member of IFLA, as a former librarian she is willing to follow the standards and duties that are expected by a professional in the field of librarianship. The guidelines can be also accessed on: <http://archive.ifla.org/faife/ethics/lacode.htm>
3. An approval letter from PAAET for undertaking the research, their willingness to participate and provide all that is needed by the researcher.

1.6 Researcher's Background

The researcher is sponsored by PAAET. For 10 years she was employed under the Dean of Libraries at PAAET, responsible for over 21 libraries under PAAET's umbrella. For five of these years she managed the Foreign Acquisitions and Collection Development Department, and for four years the Database Resource Centre LIBRANET for Faculty Members. In addition, the researcher taught three major courses (Introduction to Cataloguing; Information Skills; Introduction to Information and Library Science) for the Library and Information Science Department of the College of Basic Education for Girls as a non-resident faculty member. These 10 years of experience have made her aware of the various problems that Kuwaiti libraries and librarians face; this persuaded her to take a new look and explore new developments in the field of information.

The researcher has twenty years' experience living and studying abroad in many different countries including Algeria, Egypt, Malaysia, India, Saudi Arabia and Yemen. She earned her Masters Degree from Kuwait University and in 2009 started her PhD in Information Technology at the University of Salford.

1.7 Thesis Structure

- **Chapter One** introduced the aim and objectives of the research and also contains the research questions, the significance and purpose of the research, ethical approval, and an introduction to the researcher's background, as well as outlining the structure of the thesis.
- **Chapter Two** introduces the concept of Open Access and issues related to OA policy. Information found in the literature regarding OA and OA policy in HE is presented, together with factors identified in the literature that influence readiness for OA policy implementation.
- **Chapter Three** provides a general background to the State of Kuwait, in addition to a review of elements of public organisations, such as organisational culture; this includes HE institutions and particularly PAAET.
- **Chapter Four** discusses the research philosophy, research methods and the strategy and methods selected for this research.
- **Chapter Five** presents an analysis of the 16 interviews carried out with senior managers and academic staff of PAAET, and of the 154 questionnaires using descriptive analysis.
- **Chapter Six** discusses the findings of both the quantitative and qualitative analyses and compares these to the theory identified in the literature review.
- **Chapter Seven** presents the conclusions of this research. Recommendations to PAAET regarding OA policy are also presented, together with the limitations of the research and suggestions for further study.

Chapter Two Literature Review

2.0 Introduction

This chapter presents an overview of the literature on definitions of Open Access, and the advantages and challenges of OA. It also reviews the published literature concerning OA policy in HE, together with those factors that influence readiness for implementing an OA policy. These topics were chosen to serve as a logical foundation for the research questions formulated for this study.

2.1 Definition of Open Access

Open Access (OA) has changed and continues to change the publishing background of research bringing benefits to readers and researchers. It is well known that it helps researchers directly, both as authors and readers, but it also circulates research literature. Above all, OA is claimed to increase research productivity, and the time and speed of new research breakthroughs and advances; therefore, it is an excellent aid to information access.

However, there are numerous misinterpretations of OA. It is not self-publishing or reduced-price publication. It has been defined and its essential features described in many different ways; the most convincing definition comes from the Budapest Open Access Initiative (2002) (emphasis added by the author):

The literature that should be freely accessible online is that which scholars give to the world without expectation of payment. Primarily, this category encompasses their peer-reviewed journal articles, but it also includes any unreviewed preprints that they might wish to put online for comment or to alert colleagues to important research findings. There are many

*degrees and kinds of wider and easier access to this literature. By “open access” to this literature, we mean its **free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.***

www.soros.org/openaccess/read.shtml

However, as usual with innovation there are always different perspectives on the same phenomenon and in this case the above definition goes beyond the thinking documented by the Joint Information Systems Committee (JISC) in the UK, which produced a briefing paper on OA in 2006 where it defined OA as follows:

*The World Wide Web has provided the means for researchers to make their **research results available to anyone, anywhere, at any time.** This applies to journal articles regardless of whether or not their library has a subscription to the journal in which the articles were published as well as to other types of research output such as conference papers, theses or research reports. This is known as Open Access (JISC, 2013).*

As we can see, the definition from JISC is much simpler and does not include aspects such as payment, or use for lawful purposes and attribution to the original. From an academic and OA advocate's perspective, Brody (2007), Chan (2004), Harnad (2003) and Suber (2003) all agree that OA is instant and permanent access to the full text of pre- or post-prints of research papers available online free of charge. According to Pinfield (2009) OA is:

*where content is **fully, freely, immediately and permanently available and can be accessed and reused in an unrestricted way** (Pinfield, 2009, p.166).*

Lynch (2006, cited in Zhang, 2007) defines OA as

an increased elimination of barriers to the use of the scholarly literature by anyone interested in making such use (Zhang, 2007, p.229).

Reflecting on the definitions presented in the literature, a working definition has been developed for this research. Open Access will be defined in this thesis as:

Free, immediate and unrestricted access to full-text published research papers online, to ensure that research can be accessed, read and built upon in the most effective way for a richer research culture.

The next section presents the advantages and challenges of OA, anticipating a discussion of issues that have an impact on the readiness of OA policy implementation.

2.2 Open Access Advantages

Researchers, academic HE institutions and countries all benefit from OA. Researchers gain visibility and increased use of their output and research leads to the increase of impact of their work; academic institutions also gain the same benefit through their researchers. As for countries, they benefit from OA by the impact of the research they invest in. Therefore, many authors (e.g. Lawrence 2001; Antelman, 2004; Harnad and Brody, 2004; Suber, 2004; Brody, *et al.*, 2004; Kirsop and Chan, 2005; Pinfield, 2005) agree that the OA movement has noticeable benefits for researchers/authors as they are able to disseminate their research quickly and extensively and have increased citations by users. The more an article is cited, the better it is for the researcher's career. Zhang (2007, p.232) summarises that evident benefits for authors in the OA movement are that they are able to quickly and widely disseminate their research and have increased citations and audiences.

Jeffery (2006) states that the significant advantage of OA is research impact; Pinfield (2005) argues that OA increases access to papers and therefore improves their impact. In other words, OA is intended for scholars who publish in order to gain recognition rather than to derive income from their publications. One regular motivation raised in the

literature is that, for researchers, OA gives their articles greater research impact. A large number of studies have confirmed that an OA article is likely to be used and cited more frequently than those that are locked in publishers' archives and subscription-based publishing models. The more the article is used, cited and applied, the better for the researcher's career. Pinfield (2004a) explains that high-impact research output needs citations as this improves the position of the researcher and increases the possibility of additional research grants. Pinfield continues that impact for institutions is a broader matter, as they want a significant presence in the academic community.

OA also improves communication within the research community, especially in the light of increased competition among HE institutions everywhere. In other words, OA encourages scholarly communication, which is the essence of science and knowledge (Pinfield, 2004b). Consequently, OA is urgently needed for the improvement of scientific quality assurance (Pöschl and Koop, 2008); Pöschl (2009b; cited in Pöschl, 2010, p. 294) confirms that:

- OA opens review and debate to all members of the scientific community and the public.
- OA gives critics more information to work with and it offers unrestricted access to related publications across different scientific disciplines and communities.
- OA enables the development and implementation of new methods for the impact and quality of scientific publications.
- OA helps to overcome out-of-date control methods of citation counting, which have been significant in scientific research, publishing and evaluation over recent decades.

To summarise, the more OA is functional and the more research output is freely available, the greater significance will be given to research throughout the world. As applying OA is reasonable and not expensive, fast and universally beneficial, it is essential to be aware of the challenges that face OA as a movement.

2.3 OA challenges

Not all scholars agree with the benefits stated above. The shift of scholarly publishing from print to electronic media and the expansion of online citation networks has boosted awareness of OA among scholars. OA has become the focus of argument among researchers, librarians, academic administrators, publishers, funding organisations, and government officials. These arguments centre on the numerous challenges that confront the OA movement in the research society. Among these challenges are: awareness, self-archiving and issues concerning copyright.

2.3.1 Awareness

OA awareness is an important issue that its advocates want to achieve among the research community. The literature confirms that many stakeholders in academic institutions and universities are unaware of the advantages offered by OA (Pinfield, 2004b). Swan (2006, p.54) suggests that the issue of awareness should be handled first, because of widespread ignorance of its implications among researchers. In other words, many stakeholders in universities are unaware of the potential of OA and its initiatives. Swan (2006) also explains that authors do not make OA a priority because they do not associate it with their work. Morrison (2007) suggests that there is a need to educate researchers and policy makers about OA.

Gul, Shah and Baghwan (2010, p.220) claim that although the idea of OA has gained impetus in many developed countries, it is still at an early stage among academics in developing countries, in their case at the University of Kashmir. They suggest increasing awareness among faculty and library professionals, who can spread the information among researchers. A survey of 16 institutes in China carried out in 2005 by Chu and Li (2005, cited in Fang & Zhu, 2006, p.189) found that only 8% of the scientists surveyed were fully aware of OA; the remainder knew nothing or very little about it.

Swan (2006) argues for work on raising awareness levels of OA within the academic community. Therefore, awareness is an important factor for OA policy applicability, implementation and practice in any institution.

2.3.2 Self-archiving

Self-archiving mandates have a history of less than ten years, more than 300 institutions, funding agencies, and academic programs around the world have implemented a policy requiring researchers and academics to self-archive their research outcomes in an institutional repository or on a website, to promote free access and wide sharing of information (Xia, Gilchrist, Smith, Kingery, 2012). According to Harnad (2001) self-archiving at last made it possible to free the literature from unwelcome restrictions. The term ‘self-archiving’ was first used in 1999 by leading advocates of OA and self-archiving practice Harnad (1999); Stevan Harnad and Paul Ginsparg (1999a, cited in Pinfield, 2004a, p.1). Self-archiving is “a broad term often applied to the electronic posting, without publisher mediation, of author-supplied research” (Crow, 2002, cited in Pinfield, 2004a, p.1).

Harnad (2001) argues that self-archiving requires authors to deposit their refereed articles in (e.g. e-print) archives at their own institutions; these archives can then be harvested into a worldwide computer-generated archive, freely accessible online in full. In other words, to allow free unrestricted access authors must place the final version of peer-reviewed articles into the IR of their own institution. Zhang (2007, p.230) supports Harnad, confirming that one way to self-archiving is through each institution’s Institutional Repository (IR) and is therefore administered by academic and research institutions. The Budapest Open Access Initiative (2002, p.230, cited in Zhang, 2007) recommends two strategies for achieving OA:

... through self-archiving and open access journals. Self-archiving allows authors to deposit their refereed journal articles in open electronic archives that can be located and used by the public. Open access journals includes launching a new generation of refereed journals committed to open access, and helping existing journals that elect to make the transition to open access.

Harnad *et al.* (2008, p.37) argue that if self-archiving is to provide OA with the greatest benefits, it has to be practised in institutions’ own IRs. He counted over one hundred IRs

around the world (<http://roar.eprints.org/>); the number is growing rapidly, but not rapidly enough. Unfortunately, reports suggest that only a small percentage of self-archiving is being practised in academic institutions; Harnad, Carr, Swan, Sale, and Bosc (2009) reported that in 2009 only 15% of the 2.5 million articles published annually were being self-archived worldwide. Swan (2006) also pointed to the issue of awareness in her findings, which showed that over a third of scholars were not aware in any way of the possibility of self-archiving their work. Swan and Brown (2005) state that authors' reluctance to self-archive their work is due to the supposed time required, and to technical difficulties in carrying out the activity. Advocates are working hard to encourage researchers to self-archive, but according to Harnad (2008b) there are three main reasons for their reluctance until and unless it is mandated in an OA policy (section 2.7.2). Self-archiving might:

1. Be illegal, related to copyright issues (section 2.3.3)
2. Put acceptance by their preferred journal at risk.
3. Consume too much time.

Authors do not recognise the benefits of OA to their work, although almost a quarter of scholars place copies of their articles on their personal websites (or their department's). Only 20% have self-archived articles in their IR and even fewer have done the same in a subject-based repository (Swan, 2006, p.54). Sale (2005) suggests that it is important for libraries to provide help in order to encourage and assist staff to raise the self-archiving rate.

On the other hand, the kind of support needed is metadata entry in the IR; entering metadata is a task resisted by researchers who have not yet done any self- archiving, and is thought to be a major reason why researchers resist using the repository (Carr and Harnad, 2005). Institutions would have to set up internal support measures to assist deposits in their IR, or develop training sessions on how this could be done. Authors might self-archive papers personally, but other options suggested include outsourcing this task to support staff (such as librarians) Pinfield (2005).

In this case, the correct measure of institutional success in self-archiving is the percentage of annual self-archived articles in an institution's repository, relative to that institution's total annual article output. The only institutions that are consistently reaching 100% annual self-archiving today are those that have not only created an IR and offer library support for depositing, but have also adopted a self-archiving policy requirement or mandate (Sale, 2006a). Hence, it is important to establish a clear self-archiving policy to encourage its practice among academic staff. Carr and Harnad (2005) state that researchers need OA publishing mandates from their institutions and funders not in order to force them to self-archive but in order to *reinforce* them to self-archive. In other words, by making it official policy, it is not only safe for them to deposit their research output in their institution's repository, but it is expected of them, which makes it well worth the few minutes of extra keystrokes per paper. Harnad (2006) declares that now is the time to mandate the self-archiving of all journal articles.

Another issue that Swan and Brown (2005) highlight is that authors have frequently mentioned the issue of copyright as inhibiting self-archiving. They are concerned that, having signed over copyright to the publisher of the journal in which their article appears, they will be breaking the agreement if they self-archive the article in the IR. Grgic and Barbaric (2010), commenting on librarians' awareness of the significance of copyright concerns, point to the fact that they understand that mandatory self-archiving cannot be practised instinctively, but requires permanent collaboration with copyright owners. This, one of the main challenges to OA, is discussed in the next section.

2.3.3 Copyright considerations

Copyright is an issue that has been taken very seriously among OA advocates and causes deep concern among researchers and authors. Copyright law has a short history in developing countries, and copyright awareness of both researchers and managers still needs to be improved. Altbach (1997) states that copyright has emerged as one of the most important measures in controlling the international stream of ideas and knowledge-based products, and will be a fundamental instrument for the knowledge activities of the twenty-first century.

Traditionally, authors/researchers submitting an article to a journal have transferred copyright to the publisher by signing the publisher's Copyright Transfer Agreement (CTA). One of the reasons for the CTA is to grant the right to publish the work, and publication is precisely what the author seeks to achieve. However, some publishing agreements inflict restrictions on the use of the published work, which can even affect the use of the author's own work in teaching or research. Therefore, Pinfield (2004a) suggests that academic institutions and their faculty members need to clarify their rights. Unfortunately, many publishers' copyright agreements currently lack intelligibility, especially in relation to self-archiving. Given the rise of an OA alternative in scholarly publishing, Harley and Acord (2011) and Willinsky (2006) insist that researchers/scholars need to pause and consider when signing a form transferring the copyright for their work to a publisher, rather than simply reaching for a pen and signing away their rights.

As OA is built on sharing information through the Internet from academic OA archives or IRs, it must consider the issue of copyright. The ownership of the scholarly property in a journal article or book dwells normally with the author, except for situations where the author's academic institution claims ownership under conditions of the institution's policy and terms of employment (Fang and Zhu, 2006), for example where researchers are employed by government academic institutions or research organisations. Even though OA simplifies access to academic materials and copyright licences may allow free use of the material, users need to be reminded of scholarly property rights (Koehler, 2006).

Sale (2010) argues that copyright is a real concern among researchers as well as repository managers, as has been found in earlier studies and regularly articulated by professors. According to their study in China, Fang and Zhu (2006) found that copyright awareness of both researchers and managers still needs to be raised. On the other hand, another study on librarians by Grgic and Barbaric (2010) revealed that some 75% of librarians surveyed consider that consent for archiving should be sought from copyright owners. Librarians are aware of the importance of copyright issues, knowing that any infringement could cause problems for their institution.

Academic institutions advise their research members to have their work published in IRs without signing over all rights to publishers. Fang and Zhu (2006) argue that a writer could be asked to sign an agreement granting consent to publish and to download their paper on

the Internet freely. Harley and Acord (2011) also state that author deposit may require a special agreement with the copyrighted publisher (e.g. rewriting a copyright contract). Therefore, some rights can be retained by researchers, allowing them to do what they want in terms of dissemination through different channels (such as IRs) as well as through the publisher. Sale (2006b) argues that authors have to accept a Repository Deposit Licence before they can deposit, and that it is important that they understand what they are agreeing to.

Researchers are fearful of what they do not know, or do not understand. It is thus vital to clarify the legal status of the work and its uses. This highlights the fact that concerns about copyright issues cannot be resolved overnight but should be put in the OA regenerating agenda.

2.4 Open Access Policy in Academic Institutions

The information explosion and the increasing demand for information indicated the appearance of the 'Information Society'. There is general agreement on the idea of OA, but also many questions and discussions of the different methods proposed and their results in controlling publication and access. OA has affected academic and research library policies and procedures in several ways, as these institutions seek to meet the increasing demands of their users to engage with the rapid growth in global scholar activity. The implementation of an OA policy will enhance the potential range of publications that academic institutions produce and help researchers reach international levels.

It is important to explain what an institutional OA policy is. According to Morrison (2008), OA policy is also known as 'Green OA policy'; there are two specific reasons why OA policy is almost always focused on green or OA archives rather than on OA publishing: first, that OA policy is applied to the researcher and not the publisher, and second, that the green policy offers the researcher a wider choice, publishing either on OA or in a fee-based journal, and self- archiving a copy of their article for OA. Green open access policies are consistent with the practices of the majority of publishers. There is no doubt that policy development through significant support from research funders, institutions and other organisations has increased awareness of OA and accelerated its development where the policies apply. By their very existence, policies serve to promote the aims and objectives

of OA, to generate interest and action and to serve institutions.

An OA policy places an academic institution within the national and international academic community and opens it up to global visibility. It also provides researchers with the prospect of disseminating their academic work by increasing access to research output. An OA policy increases the visibility and impact of research and the archiving of scholarly materials of the academic institution. Consequently, many academic institutions are in the process of developing their OA policies. According to Pinfield (2010) there are a few early leaders with policies in place. The Conseil Européen pour la Recherche Nucléaire (CERN) is one of the early leaders in this area, and as early as 2005 the CERN archive held over 360,000 full-text documents (Proudman, 2007).

Research institutions need to consider the implications of international developments in the OA movement and structure their responses accordingly. Anbu (2011) confirms that the overall aim of an IR policy is to offer great benefit to the institution and users by emphasising the institution's scholarly visibility. According to OA guru Swan (2006), an OA policy is driven by the need to grow the institution's archive or IR, to ensure preservation of records of evidence of significant research and build a profile of the institution as: a corporate entity; a teaching and learning organisation; research and innovation organisation; contributor to economic and cultural development; member of local, national and international communities; and as a community in itself.

Generally, OA policy is a long-term strategy concerned with organisational and cultural changes in an academic institution as a whole, and with establishing missions, visions, and values. According to Swan (2008) there are four aspects to consider when implementing an OA policy:

1. Confer across the whole institution on the barriers and benefits of implementing an OA policy.
2. Invest in an institutional repository; the small investment in setting one up will yield benefits in managing and sharing a university's research outputs.
3. Set up financial procedures to administer income and expenditure for OA publication charges; this will help researchers publish in OA journals.

4. Promote and advocate OA policy and procedures to provide researchers with clear guidance on the opportunities open to them.

Kuchma (2008) acknowledged that international academic communities are ready to be involved in OA projects. His recommendations for countries deciding on their OA policies should include the following points:

1. Policies mandating OA to publicly funded research enhance access to and better use of research outcomes, increase the effectiveness of research and development, accelerate use and advancement, and encourage economy.
2. Partnerships are important at local and regional levels.
3. OA websites and workshops are useful tools for raising awareness. Good media coverage of other OA policies and projects is important to generate public awareness.

A number of key aspects of OA policy in academic institutions were identified above. Consequently, government, institutions, academic administrators and scholars need to work together to create an academic OA communication platform, by acknowledging the main factors that influence their readiness to change. This will be discussed in the next section.

2.5 Open Access and Readiness to Change

2.5.1 What is Change?

According to Moran and Brightman (2001, p.111), change management is “the process of continually renewing an organization’s direction, structure, and capabilities to serve the ever-changing needs of external and internal customers”. An organisation must identify where it needs to be in the future, and how to manage the changes required to get there. Lehman, Greener and Simpson (2002) noted that it is necessary for organisations to adjust to changing demands and environments; change for the sake of change does not necessarily indicate more effective conclusions; implementing trends or technologies that

are not applicable or consistent with the culture of the organisation may also have negative effects, although in the long term these changes are unlikely to survive because of staff resistance. Numerous studies report the most common cause of failure of planned organisational change is neglect of the organisational culture (Twati and Gammack, 2006). Stewart et al. (2000) argue that information system (IS) adoption is essentially a cause for organisational change, although this change to happen effective leadership and technical capacity are required.

Over the past decade, acknowledgment of OA has become a necessary objective for institutions. Gul, Shah and Baghwan (2010) state that acceptance of OA has been recognised for the two or more years as a goal of institutions; and stakeholders such as research funders and libraries, have reached the point where action has been taken towards achieving it. However, scholars have proved more resistant to OA (Gul, Shah and Baghwan, 2010). Therefore, in order to increase the success of implementing OA policies, librarians have been assigned the role of change mediators promoting the IR as an information source (Revell and Dorner, 2009, cited in Abrizah, 2010, p.33). In addition, the leadership role of information professionals is emphasised both in terms of encouraging cultural change, and in policy development and system and service provision (Pinfield, 2010). Morrison (2007) also states that the faster libraries start to restructure for change, the better. Thus, the staff in charge of electronic resources will be at the front line, managing the finances and technology of change. Once scholars/faculties comprehend the goals and concept of OA, they will embrace it with open arms, since it is they who will benefit from it (Gul, Shah and Baghwan, 2010).

The literature indicates that many researchers and authors have focused on the library's role in OA, more than any other department in the academic institution; it is true that the library does have a significant leading role, but in such a transition the researcher thinks that it is important to look at OA from many angles and the institution as a whole. This is especially so when a new way of thinking is introduced into an institution with different levels of understanding of change and with a different organisational cultures. As for PAAET, it is a government-funded academic institution, and it is generally acknowledged that public sector organisations in Kuwait are slow at making decisions, have a traditional outlook, and are hesitant to embrace change (Jones, 2009). According to Weiner (2009),

experts on change affirm that greater readiness leads to more successful change implementation, and it is equally important for academic institutions to affirm their readiness if OA policy implementation is to be successful.

2.5.2 Why readiness?

Being ready is important for successful implementation. Readiness is defined as “the state of being fully prepared for something” or “willingness to do something” or “the quality of being immediate, quick, or prompt” (Oxford Dictionaries, 2013). According to Weiner (2009, p.2) it is “a state of being both psychologically and behaviorally prepared to take action (i.e., willing and able)”. The perceptions of management and academic staff are important in measuring readiness. Smith (2005) has argued that there is a high risk of failure if individual or organisational readiness for change is inadequate. In other words, to succeed in implementing an OA policy, the organisation and staff must be ready for such change. Unarguably, as noted by Smith (2005), people are the foundation of change, and it is they who will either welcome or resist it. In order to achieve an effective OA policy implementation and to increase the success rate, the necessary procedures must be undertaken; this requires thorough exploration of the organisational readiness for such an initiative, and the steps to be taken to increase that readiness should it be found defective.

According to Baker (2010), the best approach for the institution will depend on its authority structure as well as the readiness of different groups to endorse OA in the institution. It is also important to consider the recommendation by Smith (2005), who argued that wherever a proposed implementation is to take place, there should be a comprehensive investigation of the organisation’s readiness for overall change before any attempt to implement such change is made; this investigation can reveal factors about the potential success or otherwise of the intended programme or, in this case, policy. This research therefore uses the Theory of Organisational Readiness for Change (TORC) to identify the factors that affect and influence PAAET’s readiness for OA policy implementation. It is explained in the following section.

2.6 A Theory of Organizational Readiness for Change (TORC)

Many organizations fail to create sufficient organisational readiness and, consequently, experience problems when implementing new or complex organisational change. The theory used in this study offers and embraces possible readiness factors with regards to sensitive organisational features, TORC emphasises shared decisions made for implementing change, which involves shared action by many people at different levels of the organisation, each of whom provides something to the implementation effort. The theory considers implementing change as teamwork; problems appear when some members feel committed to implementation but others do not. The opposite extreme is also possible, as organisational readiness is likely to be optimal when members not only want to implement the change but also feel confident to do so.

Based on TORC, Weiner (2009) proposed a set of five contextual factors. Therefore, to confirm that these factors that in fact have an affect to readiness to change in an organization, studying and defining the factors is seen important by the researcher to focus and determine their affect on readiness for change that in turn will facilitate the implementation efforts. In order to implement an OA policy and to achieve the benefits from it, a fundamental change needs to take place within a traditional hierarchal organisational structure such as PAAET. Moreover, the aim of the research is to identify the factors that affect the readiness of OA policy implementation, therefore, it was felt by the researcher that this theory offers such the means in addition to testing as this theory was not used in any study before.

In the theory presented here, the organisational structures and resource grants shape perceptions of readiness for change. In other words, organisational members take into consideration structural assets and insufficiencies in formulating their change ability judgements (Wiener, 2009). The theory considers approaching organisational environment features as possible factors of readiness. This study does not use or test the full theory process but adopts five contextual factors from TORC which meet the aim of the study. As it was tailored to fit PAAET and OA initiatives that were reviewed in the literature; therefore, it offers a direct guide and appropriate strategies that fit the PAAET environment (See Figure 1).

- 1 **Policies and procedures:** management, policy and governmental issues that could influence readiness for the implementation of OA policy in the HE sector (PAAET).
- 2 **Past experience:** an indication of the existing organisational culture when it comes to change implementation and adoption; in this research it is applied to policies and procedures since these allow for re-use of previous methods.
- 3 **Organisational resources:** technological and professional issues that could influence the readiness of the implementation and practice of OA policy in HE (PAAET).
- 4 **Organisational structure:** influence of academic organisational structure on the readiness for implementing OA policy in HE (PAAET).
- 5 **Organisational culture:** different aspects of organisational culture and its influence on the readiness of OA policy implementation in HE (PAAET).

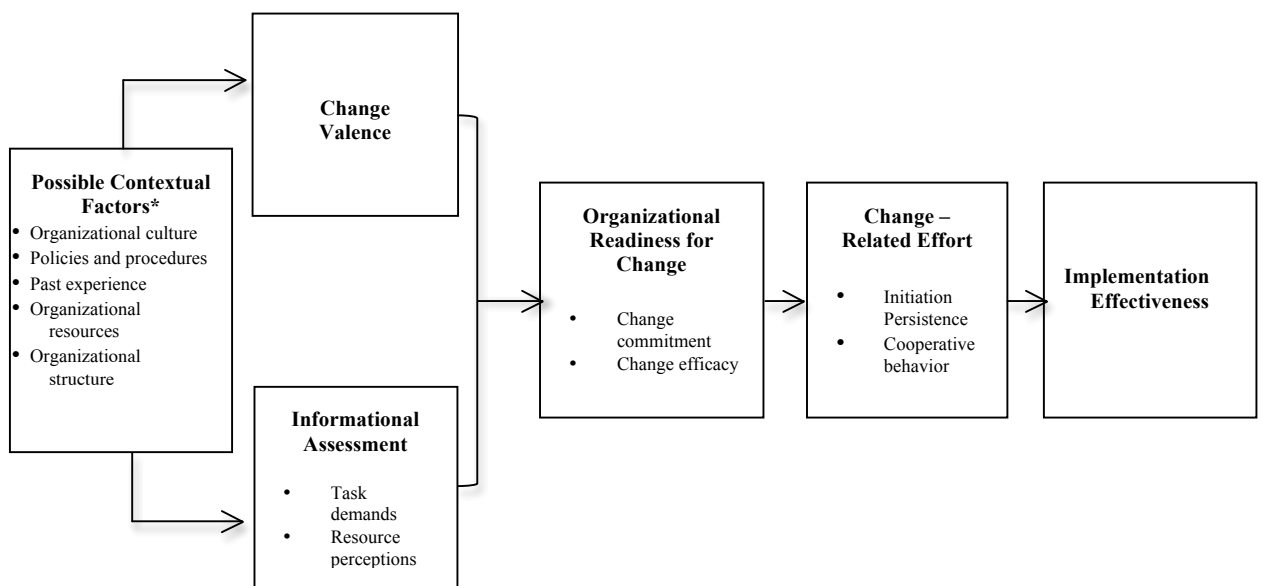


Figure 1: A theory of organizational readiness for change (TORC) (Weiner, 2009)

According to Weiner (2009) the theory proposes that change commitment is mainly a function of change valence (Science). Basically putting in mind, do organizational

members value the future change? For example, do they consider that the change is needed, important or worthwhile? The more organisational members value the change, the more they will want and be committed to implement the change, the more determined they will feel to get involved in the developments of action involved in change implementation. Organisational members might value a planned organisational change because they believe some sort of change is urgently needed. They might value it because they believe the change is effective and will solve an important organisational problem or add improvement to the organisation's performance. They might also value it because it meets with their main values. They might value it because managers support it, leaders support it, or colleagues support it. Change valence resulting from disparate reasons might be just as effective cause of change commitment as change valence resulting from commonly shared reasons. For organisational readiness, the key question is: regardless of their individual reasons, do organisational members collectively value the change enough to commit to its implementation?. Weiner (2009) argued that organisational readiness for change is not only a multi-level concept but also has many different aspects. Consequently, it can exist at the individual, group, unit, department, or organisational level, and can be speculated about, assessed, and studied at any of these levels of analysis. This research covers all levels at PAAET which is the context of the study.

It has been demonstrated that whilst different strategies have been identified by different scholars and in different theories (e.g Jick's, 2003), there are nonetheless, some common factors that can be used as a starting point in any change strategy. Jick's "tactical ten-step model for implementing change, and General Electric (GE)'s seven-step change acceleration process model" is geared toward the tactical level of change. It can be used like a process to guide and introduce change, or to evaluate change that is already happening in an organisation. It can also be used to show that change is an ongoing process and that questions asked at each step should be ongoing and often overlap (Jick, 2003). On the other hand, TORC refers organisational readiness to organisational members, concerning their assurance and ability to implement change. Therefore, it offers possible readiness factors with regard to sensitive organisational context qualities; readiness for change is regarded here in psychological terms in order to handle problems before the implementation of change.

This research is the first attempt to use TORC in a HE institute setting to identify factors that affect readiness for OA policy implementation. TORC was developed in the health sector setting in the US for the implementation of electronic medical records and to measure readiness to implement an open-access scheduling system. It focused on commitment as part of change. In exploring the meaning of organisational readiness and offering a theory of its determinants and outcomes, the intent is to promote further scholarly discussion and stimulate empirical inquiry of an important, yet under-studied topic in implementation science. Weiner (2009) feels that the content of change matters as much as the context of change.

2.7 Factors Influencing Readiness for Open Access Policy Implementation

Some of these factors have been identified in the OA and change-management literature but are not directly associated with TORC as a theory; they are presented in the following section.

2.7.1. Management support

The introduction and readiness of an institutional policy needs to be pushed from a senior level to make change happen. Idealistically this should be someone in a high-level research or institutional position who can act as the champion for its adoption and support its endorsement by the applicable institutional body or committee. Management support and leadership are acknowledged in the literature as an important element in implementing change. Leadership is a fine balance of providing commitment, motivation and direction (Brown, 1998; Senior, 2002). If leaders are not completely committed, successful policy implementation will be unlikely. Therefore, the role of leadership in HE is to create vision, communicate policy, and deploy strategy throughout the organisation (Davies *et al.*, 2001).

Raymond (2002) and Campbell (1995) suggest that leadership is required to management resistance; it is important to map the resistance factors if leadership is to create a new context which will break their hold. As mentioned in (section 2.5.1, scholars have proved somewhat resistant towards OA (Gul, Shah and Baghwan, 2010); according to Pinfield (2005) academic researchers do not like to be ‘forced’ to do anything.

Librarians also state that they need leadership from senior management and formal

mandatory policies to affect change in the institution (Swan and Brown, 2007). Change is more acceptable when it is understood and effectively directed. For effective OA policy implementation, change must involve higher management and all the levels of the organisation.

2.7.2 Type of OA policy

There are many academic institutions, universities, research institutes and research funders across the world that have not yet implemented an OA policy. The literature clearly shows that to have a real affect, OA policies must be mandatory, whether imposed by the institution or the funding body. It has been suggested that making the policy mandatory would help to hasten change and make the benefits more evident within all subject disciplines. According to Pinfield (2005), a mandate would simply help to overcome the cultural and managerial barriers that currently exist in academic institutions, speeding up the whole process. OA gurus and researchers all agree that the growth of OA policy mandates creates a global community of OA (Lawrence, 2001; Swan, 2006; Harnad, 2008b; Harnad, Carr, Swan, Sale, and Bosc, 2009; Hitchcock, 2010). Swan (2006) and Sale (2006a) agree that all the evidence to date shows that without a firm policy in place of what authors are expected to do about depositing their output, repositories will remain practically empty; with a mandatory policy they will be filled much more effectively. Swan (2006) continues:

The Southampton repository would not be full without the mandatory policy introduced in 2004.

According to Harnad (2008b),

It is important to point out also that OA policies always fail if they are merely “recommendations” or “requests,” even if “strongly encouraged”.

In other words, OA policies are more effective when deposits and self-archiving by faculty members are mandated. Harnad (2008b) goes so far as to say that the only thing that will support and motivate all researchers to self-archive is self-archiving mandates. In other words, institutions that are approaching the 100% annual self-archiving rate today are

those that have not only created an IR and provided library help for depositing, but have also adopted a mandatory self-archiving policy (Sale, 2006a).

OA policy mandates increase the possibility of good research being recognised, credited and rewarded. Harnad (2008b) states that:

University faculties have a mandate to teach, and test, and give marks. They also have a mandate to do research, and publish (or perish!). If they teach well and do good research, they earn promotions, salary increases, tenure, research funding, prizes.

To be more realistic about the effort and amount of time involved in the implementation process of an OA policy, it has been suggested acceptance by a single department is a logical starting point. Baker (2010) suggests that a working policy in one department can set an example to other departments. Pinfield (2005) also states that some departments or schools might introduce a local mandate that would encourage the spread of a full OA policy for the whole institution. Studies undertaken by Sale (2006b) have confirmed that a mandatory policy works better than a voluntary one, and that departmental (school/faculty) acceptance one by one is easier than trying to apply policy to the whole organisation at once.

However, some researchers question the suitability and applicability of a mandatory OA policy:

- Faculty/scholars may be anxious and worried that OA policy will constrain their opportunities for publication (Baker, 2010).
- Faculty/scholars' willingness to conform to an OA policy may not be transformed into practice; according to Morris and Thorne (2009) there is more support for OA publication in theory than in practice.

Mandatory OA policy can also be distinguished by type of deposit, such as e-print publications or student theses. This convolution of policy type and implementation makes the discussion of OA mandates complicated. Sale (2007) argues that a policy implemented by a programme is easier to implement than a policy implemented by an institution. Baker (2010) adds that the effect of any given policy would differ according to different situations.

It has been agreed by many researchers that without mandatory OA policies, deposit levels (self-archiving) remain persistently low. Mandatory policies have been shown to result in an average 60% self-archiving of total output after two years (Sale, 2006a). Therefore, this researcher agrees with Baker (2010) Sale (2006b) and Pinfield (2005) that the most efficient way is moving towards mandatory policy within the academic institution.

2.7.3 Government influence and funding

According to Odlyzko (2006), Kirsop and Chan (2005) and (Bosc and Harnad, 2005), no single university or research institution anywhere can afford to subscribe to all or even most of the journal databases that they need; research is currently hampered by financial barriers. Al-Ansari (2011) identified that 36% of respondents in a Kuwaiti study believed that the obstacle that inhibits automation was insufficient financial support. Adopting OA would help to reduce the cost of subscriptions and make more effective use of research funding. Pinfield (2004) confirms that institutions will reduce long-term costs in journal subscriptions by making their research and literature OA.

The literature shows that research funding bodies in both the public and private sectors have adopted international OA principles to mandate or encourage researchers to deposit funded research results in OA repositories (Pappalardo *et al.* 2007). According to Morrison (2005), research funding agencies are at the forefront of OA policy developments. OA makes sense for the research funder: it means more research impact, more real-world impact (for example, when healthcare professionals have free access to the medical literature) and, when taxpayers see the results of funded research, more support for the funding agency. Houghton, Swan and Brown (2011) noted that OA policy moves from national government organisations to international organisations that will play a major role in influencing the measures of the transition to OA. The European Union recommended that the OA pilot should be extended to all the research funded by an EU programme, which represents around 7% of all research funding in Europe and should have a strong multiplier effect.

Research funders are in a strong position to initiate developments by establishing policies to support greater access and then setting up enabling systems to ensure their policies are

implemented (Pinfield, 2006). It is well known that funders find it difficult to know accurately what has been published from the research they have funded, as tracking publications from funded research has been done largely through manual searching of the literature and matching it against the build up of OA content. According to Pinfield (2010), institutions should put in place policies, services and support methods that allow their members both to meet the requirements of funders and accept offers from publishers. They also need to monitor activity to ensure fulfilment of funder requirements.

To meet the terms of the funders' grants and ensure continuing funding, scholars and institutions must comply with certain conditions. Swan (2005) suggests that in order to encourage an OA policy, a condition of research grants from the research councils and other government bodies should be that researchers depositing a copy of all their articles in an IR within one month of publication, or an agreed reasonable period. In 2001 Harnad stated that in the UK the Research Assessment Exercise (RAE) could help speed the freeing of access to the literature by mandatory self-archiving of all their annual refereed research in IRs. According Xia, Gilchrist, Smith, Kingery, (2012) the UK Parliament's Science and Technology Committee recommended a funder-based mandate policy in its 2003-2004 report:

We recommend that the Research Councils and other Government funders mandate their funded researchers to deposit a copy of all their articles in their institution's repository within one month of publication or a reasonable period to be agreed following publication, as a condition of their research grant, (Xia, Gilchrist, Smith, Kingery, 2012, p. 88).

In other words, in order to reach the goal of OA policy implementation suggested by Diamond (1986) and Garfield (1988), cited in Harnad, Carr, Swan, Sale and Bosc, (2009):

It is employers and funders who set researchers' priorities, because it is employers and funders who reward researchers' performance by making research accessible.

Therefore, institutions and government-funded organisations should mandate their funded researchers to deposit a copy of articles in their IR within a reasonable period, as one requirement of evaluation and a condition for reapplying for funding. Research funding agencies should also take it upon themselves to inform researchers about the OA movement. Authors need to forget their traditional approach of disseminating information through age-old models (Gul, Shah and Baghwan, 2010).

2.7.4 Organisational resources

The literature shows that technology and IT establishment are significant elements in the implementation of an OA policy. The growth of OA demands the adoption of new technologies. However, in order to meet these requirements, senior academic management and libraries should work together towards OA initiatives. Academic institutions have staff skilled in information management in their libraries and IT departments, and they have the resources and infrastructure to set up and support repositories. They can mandate or encourage self-archiving and they can benefit from the enhanced profile (Lynch and Lippincott, 2005; Pinfield, 2005). Consequently, the work of research and academic libraries will change as OA grows in importance. Implementing technologies by providing hardware and software is not enough without promotion of staff skills and competence in handling technological change. Both a technological infrastructure and professionally skilled staff are required in order to support the OA policy during and after implementation.

2.7.4.1 Technological resources

OA can only be totally achieved if the right infrastructure is in place to enable global access. The technical infrastructure for setting up institutional archives is comparatively straightforward and the costs minimal. The development of the Internet has already led to a remarkable transformation in academic institutions, and makes possible the establishment of a web-based network of OA IRs. The Internet has a part to play in organisations' setting up and support of technical standards, cultivating technical solutions to problems and promoting OA. A variety of free OA software is readily available for this purpose. The best-known and most widely used software is *e-prints*, made available by the University of

Southampton in the UK, and *DSpace* from the US-based Massachusetts Institute of Technology (Kirsop and Chan2005).

The literature argues that developments and changes in technologies also require organisational changes to be made in order to ensure the effective use of technology to enable OA policy implementation. In his study conducted in Kuwait, Al-Ansari (2011) asked respondents to identify obstacles that impede automation; 32% reported lack of technical support, and the non-availability of less expensive multilingual library software. Similar problems have been reported by other researchers, such as Haneefa (2007). Therefore, before adopting OA technology the institution should ensure technical support for the OA policy system and ease of understanding the use before implementation, through training staff to support the system.

2.7.4.2 Open Access Professionals

Over the last decade, librarians and library associations have been among the leaders in advocating OA policy (Morrison, 2008). The mission of the academic library is to support learning and research by access to the world's knowledge. Therefore, librarians today need to be aware of the technical developments of the Internet era, and must adopt and adapt to the new tools provided by computer science (Bosc and Harnad, 2005).

Libraries must look beyond their traditional roles of building collections and subscribing to remote resources. According to Schmidt, Sennyey and Carstens (2005), Libraries need to think of themselves as facilitators between their patrons and the ever-expanding and increasingly complex world of information. With regard to open access resources, libraries can serve their users in a number of ways (Schmidt, Sennyey and Carstens, 2005). Studies emphasise technical workshops to train professionals in generating and maintaining IR even before focusing on awareness, education and promotion of IR for research publications on free websites (Meyer, 2008).

The role and the responsibilities of the library stakeholder will be changed in this new electronic library environment. Moyo (2004) argued that librarians will have a new role, and service paradigms are emerging as a result of developments in electronic information such as information access, processing and transmission. According to Kuwaiti studies,

Marouf and Ur Rehman (2005) noted that Kuwaiti information professionals lacked practical experience; Al-Ansari (2011) found that 88% believed the biggest barrier to automation is insufficient staff with ICT skills or experience; 84% agreed that lack of ICT training programmes was a barrier.

Furthermore, library professionals will need to conduct advocacy campaigns to increase awareness of a digital repository (Sale, 2006a). These campaigns might include presentations about OA and the IR, individual meetings with faculty, producing promotional material such as leaflets, setting up a project website and publishing articles in institutional newsletters or magazines to inform academic staff of the progress of the repository over time. In other words, librarians are required in planning, promoting and training (Swan, 2005).

2.7.5 Organisational Culture

According to Bait-Elmal (2000), “Cultures with very strong traditions require clear signals about the commitment of leadership to avoid a crisis of legitimacy in the change initiative. Organisational culture on the other hand, was defined by the Business Dictionary (2013) as:

The values and behaviors that contribute to the unique social psychological environment of an organization. Organisational culture includes an organisation’s expectations, experiences, philosophy, and values that hold it together, and is expressed in its self-image, inner workings, interactions with the outside world, and future expectations. It is based on shared attitudes, beliefs, customs, and written and unwritten rules that have been developed over time and are considered valid.

The IS literature defines organisational culture as a controlling factor in accepting and adopting IS (Abdul Rashid *et al.*, 2004; Chai and Pavlou, 2004; Davison, 1996; Fey and Denison, 2003; Frotaine and Richardson, 2003). Interpretive studies have found that IT is readily adopted even in risk-reluctant cultures (Hasan and Ditsa, 1999). Pinfield (2003) also states that cultural change will be necessary before self-archiving becomes the norm. Political and business-related issues include a cultural context (Swan, 2006). Pinfield

(2005) argued that it would:

“simply help to overcome quickly the cultural and managerial barriers that currently exist in this area; something that would otherwise take a number of years” (Pinfield, 2005).

There are a variety of factors which contribute to cultural differences between nationalities, such as language, common mass media and national education system (Hofstede, 1991). However, in this case one of the major sources of difference in language and national culture is segregation and favouritism or “*Wasta*”.

2.8 Open Access Policy in Developing Countries

In the developing world, the OA movement is crucial. OA is unusual in developing countries, although it is necessary if their scientific literature is to become more accessible and visible to the international scientific community (Packer and Menghini, 2007, p. 647). In the year 2000, according to Aronson (2004, cited in Kirsop and Chan, 2005) a World Health Organisation survey found that researchers in developing countries claim that access to subscription-based journals was one of their most pressing problems; 56% of research institutions had no current subscriptions to international journals, nor had they had any for the previous five years. This problem was already understood and declared at the World Conference on Science held in 1999 under the umbrella of UNESCO and the International Council of Scientific Unions (ICSU), where it was announced,

Equal access to science is not only a social and ethical requirement for human development, but also essential for realizing the full potential of scientific communities worldwide and for orienting scientific progress towards meeting the needs of humankind (UNESCO and the International Council of Scientific Unions, 1999) .

Although awareness of OA in developing countries is still comparatively slight, and restricted to the larger countries with more advanced science infrastructures, a number of

OA archives are already listed in the Registry of Institutional Archives. It is an indication of reasonably good and prosperous levels of access for research authors in developing countries, although a substantial number of researchers from did report difficulties and/or gaps in access to OA literature (Davis, 2009). According to Kirsop and Chan (2005), as of 10 October 2005, out of the 468 registered archives, 66 were from developing countries. Brazil, then had six, which increased to 29 within six months. India had 11 registered archives and China four. With increased understanding in developing countries of the benefits of OA, these numbers are expected to increase.

Many researchers have highlighted numerous benefits of OA publications to academic institutions and researchers in developing countries. Among these advantages are the following:

- **Access to international research output**

With Internet access and the increase of international institutes' OA archives, published research becomes available to anyone (Kirsop and Chan, 2005).

- **Promotion of institutional research output**

Kirsop and Chan (2005) notified that showcasing their faculty's research output can bring prestige to both staff and institutions, and this will open up suggestions for future international collaboration, joint research, funding proposals, and even recruiting and retaining faculty members. Progress in research will be built on global collaboration, increasing and self-corrective progression of publishing, accessing and using research findings in order to generate further findings, applications and publications (Bosc and Harnad, 2005).

- **Improved citation and research impact**

OA will help increase citation and research impact in developing countries; Lawrence (2001) found an average of 336% more citations of online articles compared to offline articles published in the same location.

- **Facilitating peer review**

A considerable amount of time will be saved in physical searching in the library if all the past papers referred to in the new paper are readily available in searchable archives (Kirsop and Chan, 2005).

Summarising the above, for researchers in developing countries, OA will solve two major problems: their research will gain more international visibility, and their researchers will gain access to international studies. Recommendations that are made in the developed world will give confidence and encouragement to academic administrators in developing countries (Kirsop and Chan, 2005) to move towards considering implementation of an OA policy. OA can raise the profile of an institution's research output, and in order to reach high standards academic institutions need to think in terms of implementation of an OA policy.

2.9 Summary

This chapter examined the basic concepts of OA. It reviewed research studies carried out on OA and the factors that affect readiness for policy implementation. The main factors that affect readiness According to TORC and the OA literature, these factors include managerial, government, organisational and technological aspects. A critical evaluation of the literature revealed that most attention to date has been paid to OA initiatives and challenges, as opposed to factors that influence readiness for OA policy implementation, such as organisational attributes. Furthermore, there are only limited references to issues of organisational culture. This study attempts to fill this knowledge gap, especially in the Kuwaiti context. The next chapter introduces the Kuwaiti context in which this research takes place.

3.0 Introduction

This section presents a background to the State of Kuwait to help in understanding its current situation. The focus is on two main characteristics of the State namely its national culture and the organizational culture in Kuwait higher education institutions. This section is used as a base for this study and is divided into two sections: the first part discusses the geographical, historical, demographical, cultural and governmental features of Kuwait, while the second part introduces Kuwaiti public organisations and describes the Public Authority of Applied Education and Training (PAAET) as this is the focus of the study.

3.1 The State of Kuwait

This section provides a description of the State of Kuwait in terms of its geography, Language, population, economy and public organisations; this also includes the public higher education institutions.

Geography

Kuwait is located in the “Middle East” in the south west of Asia. It is located to the south of Iraq and north east of Saudi Arabia. The total area of Kuwait is 6,880 sq. miles (17,819 sq.km). Historically the Al-Sabah family rules Kuwait and the ruler of the State is a “sheikh” who is referred to as the “Ammeer” the Prince of the State of Kuwait. (Information Please Database, 2010). See Figure3.1 (Map of the state of Kuwait)



Figure 2: Map of the State of Kuwait

(Licensed as CC-BY-SA, opendatacommons.org, 2013)

Population

The State's population, as recorded in government statistics up to March of 2013, is 3,861,081 – which is less than half of the population of London. The majority of the population is made up of foreigners as they represent nearly two thirds (2,639,581) of the population in Kuwait while Kuwaiti citizens represent nearly a quarter (1,221,500) (PACI, 2013).

Language

Arabic is the official language of the State of Kuwait and is the language that is spoken in government. English is the State's second language as it is taught in schools from grade one and is therefore widely spoken and used (Kuwaiti offshore service, 2011).

Economy

Since the discovery of oil in 1934, Kuwait's economy has been highly developed to

become one of the largest oil producing countries in the world. It is considered to be one of the richest countries and to have the highest standard of living in the world (Kuwait Information Centre, 2004; Encyclopedia of the Nations, 2013). Kuwait also has oil reserves of about 102 billion barrels or 7% of the total oil reserves in the world.

Despite its prosperity and wealth, Kuwait is classified as a developing country (not to be confused with third world countries). Generally developing countries is describes a nation with a low level of material well being. The levels of development may vary widely within so-called developing countries as some developing countries have high average standards of living (Princeton University, 2013), Kuwait being one of these high living standard countries. Moreover, Kuwait's economy is immensely reliant on expatriate workers for many of the skills required by the country for successful economic development efforts. It is a nation of over 3.8 million residents of whom over 2.6 million are expatriates who come to Kuwait to gain experience then migrate to developed countries Aladwani (2002). In other words expatriates play a major role in contributing towards Kuwait 's economy.

Due to Kuwait's classifying among the developing countries, it is expected to report on its progress achieved in realizing the Millennium Development Goals (MDGs). Country reports on the MDGs are expected to provide an input into the UN Secretary General's global report on MDG progress. The United Nations Development Programme (UNDP) is the directing agency on monitoring advancement towards achieving the goals in collaboration with UN agencies, other UN partners including the World Bank. The main purpose of the collaboration is to ensure a common assessment and understanding of the status of the MDGs at both the global and national levels (Ministry of Planning, 2003).

3.2 Public Organisations in Kuwait

As mentioned previously, Kuwait like other countries that signed up to the Millennium Development Goals agreement (MDGs), committed to achieve the MDG targets by 2015 (United Nations Development Program, 2005). One of the MDGs in Kuwait is the need to improve levels of human development, such as improving the public and private sectors, with more emphasis placed on meeting the global development network and in capitalizing

on knowledge and experience. Therefore, many efforts have been made to improve public sector organizations in line with the economic growth of the State, as well as to address growth and changes in knowledge to meet the MDG put forward by the Kuwaiti government (Kuwait Times, 2011).

Therefore, efforts to improve public sector organizations have centred on expanding financial investments and social developments in different public sectors. In 1973, the government supported one of the most important research institutes in the Middle East, the Kuwait Institute for Scientific Research (KISR) (Al Fadhli and Johnson, 2006). This institute carries out research in a wide range of scientific areas relating to industry, energy, and agriculture that contribute to the social and economic development of not only Kuwait, but also the other Gulf countries and the rest of the Arab World (Kuwait Institute for Scientific Research, 2000). Therefore, It would be beneficial for such an institution to coordinate with regional and international research institutions to raise research outcomes. KISR has become directly responsible for carrying out applied scientific research that is related to national economy in order to help the economic and social development of the State of Kuwait. Furthermore, it has been engaged in developing and implementing new technologies in its organisation in order to develop electronic data and resources to upgrade the Institute's capabilities and support decision making (Kuwait Institute for Scientific Research, 2000).

It is anticipated that research organisations and academic institutions could coordinate with research institutions by allowing researchers to coordinate in exchange for financial benefits and support, these research projects can be available through OA technologies. It is worth noting that the economic/cost factors were not mentioned in detail in this study as PAAET is funded and supported by the Ministry of Finance of the Kuwaiti Government.

3.3 Kuwaiti Organisational Culture in Public Organisations

Kuwaiti organizations management style leans towards the traditional model of management. Control and power in organizations moves from the top down and most organizations tend to be controlled by a single individual (Aladwani, 2002). Therefore, public organisations seem to face many managerial problems and impediments. For

example the reliance of some Kuwait managers on foreign human capital of all types and inevitable organisational culture differences (Al-Kazemi and Ali, 2002).

3.4 Public Higher Education Institutions in Kuwait

The State of Kuwait focused on education and higher education in order to offer academic, technical and professional training, and to offer the country the skilled manpower in many different fields of qualification. In 1966 the Amiri Decree was passed to establish the organization of higher education in the country and in the same year Kuwait University (KU) was established. Further developments was in December 1982 by establishment of the Public Authority for Applied Education and Training (PAAET) in December 1982 (Wikipedia, PAAET, 2013a; Wikipedia, KU, 2013b). Overall these two HE institutions are the only government funded public HE institutions that offer education to the nation of Kuwait.

In addition, there are a number of private post-secondary colleges and universities that are approved by the Kuwait Ministry of Higher Education to offer western educational curriculum, which are:

1. Gulf University for Sciences and Technology (GUST).
2. Australian College of Kuwait.
3. American University of Kuwait (AUK).
4. Gulf American College.
5. Kuwait Maastricht School (KMBS) for MBA.
6. Box-Hill College for Girls.

Therefore, the ministry of HE should expect PAAET and KU to work together by building an OA culture and in their institutions particularly and Kuwait in general by implementing OA policies. In addition, it would be of interest if they would coordinate with the private Universities and collages, as this will also have an impact on other academic institutions in the neighboring countries due to the history of PAAET and KU by them being the earliest HE institutions in the Gulf region.

3.5 Kuwait Higher Education Institutes and Information Systems

The Kuwaiti government has focused a great deal of attention on establishing and maintaining information systems and centres to meet the demands of developing nations as well as to support its goal of reaching equality with technologically advanced countries (Al Fadhli and Johnson, 2006). The government also understands the significance of Information Technology, and subsequently has embraced the idea of establishing an infrastructure for the information sector, as part of a strategic aim for the state to provide quality services for both the governmental and business sectors (Othman, 2003). Therefore, Kuwait is investing generously in its higher education infrastructure and its libraries of the higher education institutions are expected to have the latest technological applications for library interaction.

Many new higher education institutions have been developed and there appears to be a blend of well-established institutions of higher education and newly founded institutions in Kuwait (Ur Rehman; Al-Huraiti, 2009). However, no study has been conducted that gives an overall account of the way automation has been approached, library automated projects have been conceived and developed and library systems have been implemented Kochtanek and Matthews (2002). In addition, there are many problems and difficulties that slow the development of libraries in Kuwait.

It is therefore important for Kuwaiti academic institutions to look into the feasibility of implementing of an OA system in order to understand the different aspects of the developments that it can offer, and the possibilities and challenges that these institutions might face during its implementation.

3.6 The Public Authority for Applied Education and Training (PAAET)

The Public Authority for Applied Education and Training (PAAET) was established three decades ago (Wikipedia, PAAET, 2013b). The aim of this was to meet the shortage in skilful and expert manpower by developing the nation's human resources through education and training in response to the needs of the country's industrial and economic development as a result of oil production and export. PAAET's goal is different from

other traditional higher education institutions such as Kuwait University which tends to emphasise academic development, since PAAET aims to develop, through applied education and training, a highly qualified skilled and technical manpower to fulfil the country's needs.

The State of Kuwait had already begun to establish training centres in the 1950s through the Ministry of Education in order to prepare the necessary manpower for the new oil industry. Other ministries then established training centres and institutes of their own. Because of this, the State found it necessary to create a central body to administer the activities of these institutes and so established the Department of Technical and Vocational Education in 1972. The Central Training Department was also formed to coordinate and supervise training centres that had been set up by the ministries. These departments continued to operate until 1982 when PAAET was established as an enterprise to create and implement an overall plan for the technical and vocational training sector (Wikipedia, PAAET, 2013a). It was given the degree awarding status of a higher education institution and currently it is offering diverse programs, two to three year diploma, and a bachelor degree in selected areas. PAAET consists of several colleges, institutes and special training programs. PAAET also offers programs in response to the demands of various Kuwaiti ministries, state institutions and organizations in private sector.

The higher education institute is integrated with the applied education sector that consists of five colleges: College of Basic Education, College of Health Sciences, the College of Technological Studies, College of Business Studies, and the College of Nursing, as well as a number of training institutes that are linked to the training sector: Institute of Electricity and Water, the Industrial Training Institute, and the Institute of Telecommunications and Navigation. All of these institutes and colleges are built separately in different locations; in other words, they are segregated and have separate campuses for males and females (Al-Ansari, 1992 cited in Al Fadhli and Johnson, 2006, p.10). As Kuwait's parliament passed a law (number 24) in 1996 ordering that male and female students at Kuwait University and other higher education institutions be completely separated (Billing, 2009).

3.6.1 Segregation

PAAET has a segregation policy since its establishment and it is considered to be a part of its organizational culture. As mentioned earlier, male and female students are located in different campuses; and mostly taught by faculty members of the same gender but depending on the shortage of faculty in some subject area it is therefore, acceptable that male faculty members teach in female colleges but not vice versa. As female faculty members never teach in male colleges unless she is invited as a visiting lecturer for a session or more by the official male faculty member. Because of the law that demands segregation; this has led to the same department's academic staff to be separated physically (different locations). Therefore, it is difficult to reach each other in most cases and as there is no recognised or technologies or process to link them together in order to reduce this problem. The physical separation of colleges for males and females is a main reason for the lack of interaction between the sexes and influences the cooperative activities among researchers. Therefore, the issue of segregation raises some concerns about the time and efforts that will be needed to spread the awareness of OA initiatives in PAAET. This factor may slow the process of interaction between researchers in PAAET if there will be cooperative publishing through OA.

This helps in understanding Kuwaiti culture in general and Kuwaiti HE institutes culture in particular; it also benefits this study as the readiness of OA initiatives and implementation requires communication and interaction with and among academic staff of both genders; it is necessary to see how the Kuwaiti culture affects the readiness of OA policy implementation in PAAET.

3.7 Primary Technological developments in PAAET

PAAET has many goals and objectives that it aims to achieve in its colleges such as developing its performance and research activities in different specialized areas in order to solve social and economic problems in Kuwait. PAAET also wishes to foster and develop the performance of its institutional assets and aims to develop its technological systems and database networks within the institute in order to connect these with other state databases so that they can work closely with each other (Enjazat Alhaya alama

letallem al tatbeqi wal tadreeb, 2006). Although PAAET was established 31 years ago, Ur Rehman; Al-Huraiti (2009) found that PAAET still has a low number of periodical and database subscriptions among other academic institutions in Kuwait. Therefore, it seems that PAAET is dealing with a low budget in acquiring these resources and by applying OA strategies could help to reduce or solve this problem in the long run.

PAAET is among the six Kuwaiti higher education institutions having a library automated system (Horizon system of Dynix), the five institutions are: Kuwait University (KU), The Gulf University of Science and Technology (GUST), American University of Kuwait (AUK), Health Science Center Library (HSCL), and Kuwait-Maastricht Business School (KMBS). Findings of a Kuwaiti study have shown that PAAET, GUST and AUK provide access to their Online Public Access Catalog (OPACS) through their web sites (Ur Rehman; Al-Huraiti, 2009).

This technological development indicates that it more likely that OA policy implementation will be welcomed in PAAET and ease its process. In fact, OA policy can potentially help PAAET to improve its performance and ease its cooperation with other institutions by implementing OA strategies; additionally it could help in creating a more effective OA culture for research in Kuwaiti academic community.

3.8 PAAET's Libraries

All the colleges and training institutes have their own library buildings for males and females (a total of 19 in all) that are controlled by the Deanship of Libraries. The Deanship is responsible of planning and providing services to users (Faculty and students) and to provide the necessary professionals (such as librarians) in the colleges and training institutes in order to support library collections and multimedia resources (Kuwait Information Office, 2010).

The Deanship of Libraries aim is to provide the colleges and training institutes with the current information resources, information services and multimedia that are required by in PAAET; for example, this means supplying the libraries with up-to-date technology such as databases (libraNet center). The database centre is connected with databases of other academic institutes such as the American University in Kuwait and the Gulf University for

science and technology. Web 2.0 technologies have been installed in PAAET's libraries that provides instant messaging and also a shared learning environment. The Deanship of Libraries aim to provide the material and services that will best meet the needs of students and academic staff; records conferences and lectures relevant to PAAET and preserves the resulting materials; evaluates the performance of employees and then provides relevant training courses to improve the quality of services (PAAET, 2011).

It is anticipated that an OA policy implementation if considered would fit into the Deanship of Libraries remit of work. However, the current organisational roles and priorities are not clearly stated to differentiate between the Department of Research and the Deanship of Libraries as to who has the responsibility for managing faculty members' publications' sharing..

3.9 Summary

This chapter provided a general background of the State of Kuwait and the State's public organisations in the area of Higher Education. Kuwaiti Higher Education Institutes and their uses of Information Systems, particularly those relevant to Open Access, have been highlighted. The important organisational cultural factors affecting potential implementation of open access are the top down centralised decision making which is prevalent in the country.

Kuwait, although a developing country is a financially very rich. The financial power is used by the rulers to advance the development of Kuwait's education and through this advancing of long-term economic sustainability, which will help Kuwait to exist beyond the days of energy reliance on oil. A knowledge economy of Kuwait's future relies on the use of information and thus open access is becoming an important consideration for the higher education organisations in the country.

4.0 Introduction

This chapter describes the research methodology adopted to answer the research questions, and thus, meet the aim and objectives of the study. Primarily, the researcher identified different research philosophies, approaches, strategies and methods. Next, appropriate methods for this study were explored. Finally, the researcher outlined the methods of analysis that were adopted and the process used for coding and sorting the responses.

There are many reasons for conducting research, some of which are listed by Collis and Hussey (2009, p.3): “to review and synthesise existing knowledge, investigate existing problems and provide solutions, explore and analyse more general issues, construct new procedures, and generate new knowledge”. The reason of this research was to explore and analyse the perceptions towards OA and the readiness of OA policy implementation within an academic community in a higher education institution in Kuwait (PAAET).

4.1 Definition of Research

It is important for the researcher to understand what research is in establishing research process. Research, according to different authors' perspectives reflects their own interests and backgrounds. Walliman (2005, p.8) defined it as a term freely used in every day speech to describe a multitude of activities, such as collecting masses of information, delving into esoteric theories, and creating wonderful new products. Collis and Hussey (2009, p.3) mention that research is a “process of enquiry and investigation; it is systematic and methodical and research increases knowledge”. These definitions distinguish the aims of conducting research: identifying and formulating questions in order to enhance knowledge and to promote further enquiry. The sections below introduce matters relating

to the philosophical strands, research strategy and the research methods that include both quantitative and qualitative techniques.

4.2 Research Philosophy

The philosophy of research reflects to the way a researcher reasons about the development of knowledge in addition to the influence the way she/he decides on how to conduct the research (Saunders et al, 2007). Therefore, Easterby-Smith et al (2004) highlights three reasons why it is important for a researcher to understand the value of the philosophical approach. First, the research philosophy elucidates the research design and its methods for collecting and interpreting the data required to answer the questions raised. Second, it directs the researcher towards the appropriate research design and highlights the potential limitations of the design, and third, it helps researchers to produce new research designs or adapt designs according to the constraints of different subject or knowledge structure.

Different methodologies can be used for a given ontological or epistemological perspective. Ontology studies the nature of existence in terms of whether the realities of the social world are perceived from an objective or subjective nature (Burrell and Morgan, 1979, p.1). Epistemology, which is the study of the nature of knowledge; this extends to three philosophical positions, namely positivist, interpretivist and critical approaches as these different epistemological positions have been used by researchers in information systems (Myers 1997, Chen and Hirschheim 2004, Krauss 2005). These three positions make different philosophical assumptions about knowledge and how humans can achieve it. While these positions also known as “paradigms” are essentially different, there have been suggestions to accommodate them in research (Krauss 2005, Myers 2008).

4.3 Research Paradigm

Paradigm comes from the Greek “paradeiknyai” according to Trochim (2006) and that is to show side by side and it is a pattern or example of something.

"A paradigm may be viewed as a set of basic beliefs...that deals with ultimate or first principles. It presents a worldview that defines for its holder, the nature of the "world", the individual's place in it, and its parts ... The beliefs are basic in the sense that they must be accepted simply on faith (however well argued); there is no way to establish their ultimate truthfulness. If there is no where, the philosophical debates ... would have been resolved millennia." (Guba and Lincoln, 1994, p.107-108).

In other words, a paradigm is rather a framework within which theories are built, that mainly influences how the world is seen, determines perspectives and outline the understanding of how things are connected.

"[Research] paradigms define for the [researcher] what it is they are about, and what falls within and outside the limits of legitimate [research]." (Guba and Lincoln, 1994, p.108).

4.3.1 Positivist Paradigm

Positivism is one of the oldest paradigms that go back from the time of Bacon, Galileo and Newton. It has developed over the past 400-500 years and became recognized (Oates, 2006, p. 283). It is sometimes referred to as 'scientific research' and the purpose of science is to hold on to what is observed and measured. The approach of the scientific method is the experiment, the challenge to recognize natural laws through direct manipulation and observation. According to Trochim (2006) positivism holds the goal of knowledge that simply describes the fact that is experienced. Oates (2006) argues that positivism has two basic assumptions or characteristics, which are: a) the world is ordered and regular and not random; b) it can be studied objectively (Oates, 2006, p.283). These characteristics of positivism are also agreed upon in IS research as outlined in the following quote:

“... IS research can be classified as positivist if there is evidence of formal propositions, quantifiable measures of variables, hypothesis testing, and the drawing of inferences about phenomenon from a representative sample to a stated population (Orlikowski and Baroudi 1991)...” (Klein and Myers 1999, p. 69)

Lee, (1999) explains positivism that it is simply based on the belief that social science research should be conducted in the same way research in the natural sciences is conducted. Therefore, positivism is known as a traditional research, it is also acknowledged as a research leads to predicting and controlling phenomena. In other words, it follows scientific approaches to developing knowledge, research strategies, methods and interpreting results. The aim of positivistic inquiry is explanation that ultimately enables the prediction and control of phenomena, whether physical or human (Guba; Lincoln, 1994).

“A statement in positivist sciences is true if and only if it describes reality as it is, if proposition and reality correspond. The preferred method of arriving at true statement is that of empirical investigation.” (Stahl, 2003, p.2879)

Furthermore, positivists favour scientific methods such as experiments and surveys. Myers (1997) argues that the positivist paradigm searches to test theory in order to understand the measured phenomena. Therefore, some researchers prefer a positivist approach because it highlights on "getting objective measures of 'hard facts' in the form of numbers" (Neuman, 2004, p.42).

The positivism paradigm has its critics (Collis and Hussey, 2009; Healy and Perry, 2000; Maylor and Blackmon, 2005) particularly qualitative researchers who argue that positivist methods have only one way of approaching the social world (Denzin and Lincoln, 2005, p.11). Hence, Collis and Hussey (2009, p.56) draw attention to the disadvantages of adopting a positivist approach, arguing that it is not possible to isolate people from the social contexts in which they exist in and that individuals simply cannot be understood without examining their personal perceptions of their behaviour. The authors emphasize

that researchers cannot be completely objective, because they are themselves part of the phenomena they are observing and therefore carry with them their personal interests and values, which become embodied in the research. Likewise, Healy and Perry (2000) criticise positivist researchers by detaching themselves from the world they study, while researchers within interpretive and critical paradigms recognize that they have to contribute in real life to some degree so as to understand and express its developing properties and features.

Finally, in order to answer the ‘why’ question it would require an understanding of people’s perceptions and an understanding of the readiness factors and their presence in the organisation of research. Moreover, in dealing with a complex situation, positivists adopt a reductionist attitude, isolating unconnected variables for analysis. The positivist views regarding knowledge tend to be deductive in nature, meaning that a theory is formed and then using evidence, therefore it is either excluded or accepted.

The positivist philosophy has several limitations in respect of the current study. One such limitation is that positivism is generally biased towards the deductive, quantified method together with a focus on hypothesis testing. In the case of social research this is usually not considered where quantification is often not direct (Myers 1997). As a consequence a positivist approach would not allow the researcher to fully capture the richness of the readiness of change in relation to OA. Thus, a positivist approach is regarded as unsuitable for this study due to its interpretive character.

4.3.2 Interpretive Paradigm

As described above, positivism is associated with natural sciences. On the other hand, the interpretive paradigm began in the social sciences. Interpretive researchers are unconvinced by positivist efforts to create exact quantitative measures of objective facts because they view social reality as very effortless and not easily measured (Neuman, 2004, p43). Interpretive researchers trust and favor qualitative data which is associated inductive approach and develops a theory as a result of qualitative data analysis, keeping in mind that qualitative data can more precisely in capture the flow and processes of social truth (Neuman, 2004; Saunders *et al.*, 2007).

Interpretive research has emerged as an important strand in IS research as it is used to study complex phenomenon and develop an understanding of social life. Myers (1997) considers IS research as interpretive, because it focuses on human behavior for gaining a deeper understanding of its complexity. Interpretive research has proven to help IS researchers as outlined in the following quote:

“...can help IS researchers to understand human thought and action in social and organizational contexts; it has the potential to produce deep insights into information systems phenomena including the management of information systems and information systems development” (Klein and Myers, 1999, p. 67).

Nandhakumar and Jones (1997) argue that an interpretive research is anticipated to describe and try to understand the phenomena from the participant's point of view and always involves interpretation by both researchers and participants. Research of interpretive nature adopts the point that the knowledge of human action is a social construction and therefore researchers cannot discover an objective reality and then simulated it by others (Walshman, 1995a). Interpretive research accepts that knowledge of reality is socially created (Walsham, 1995b) which is yet again a polar opposite stance to that offered by positivist researchers.

According to Oates (2006, p.293) interpretive research has four characteristics: researcher reflexivity; multiple subjective realities; dynamic socially constructed meaning and study of people in their natural settings and multiple interpretations. But according to Neuman (2004) interpretivism has three main characteristics:

1. The research focus is on exploration.
2. It represents the researcher's main understanding in constructing and imposing through interpretation but is limited by the frames obtained from his/her own life experiences.
3. If ideas subjectivity and inter-subjectivity.

Subjectivity suggests that the researcher's own views and how they have been constructed

may affect outcomes while inter-subjectivity suggests that the researcher's views are re-structured through interaction with others through verbal communication and written texts (Gribch, 2007, p.8). The interpretive paradigm is a "*basic set of beliefs that guide actions*" (Guba, 1990, p.17). Facts are flexible in the interpretive research and they are fixed in the context of the research, they cannot be neutral or objective (Neuman, 2003). Interpretive researchers include evidence about the subject, about the research process and how they came to their conclusions since their subjectivity should be understandable by others (Walshman, 1995a; Walshman, 1995b; Neuman, 2003).

On the other hand, there are some limitations in the interpretive research in IS field despite of all its benefits. Nandhakumar and Jones (1997) classify some limitations that might endanger the interpretive research's quality of since it depends on interpretations:

1. The ability of the researcher to correctly understand the actor's interpretation, especially if both are from different social and cultural settings.
2. The ability of understanding the difference between what is said and what is done.
3. The issue of secrecy in social communication. Some issues may not want to be risen by some actors or may intend to misinform the researcher.
4. Some actors actions might not be able to be given an account for, since their behaviours form is part of their social routine of which they may not fully be aware of (Nandhakumar and Jones, 1997).

Obviously, from the discussions in the sections above that it is evident according to Lee (1991) that the positivist approach and the interpretive approach would appear to be in opposition; however, it is acknowledged that both approaches have something to offer to IS research.

Choosing between these two major philosophical positions required the researcher to take into account their characteristics and the nature of the current study, whose purpose was to gather rich and deep information in order to investigate the factors that affect the readiness to OA and such research necessarily deals with views and experiences regarding this particular issue. Bell (1999) argues that qualitative research is more suited to understanding individuals' perceptions of the world, seeking insight rather than statistical

analysis. Since the researcher has a background as librarian in the same field in which current research has been undertaken, the researcher has concluded that interpretive paradigm was more appropriate for this study; hence, it was adopted as the underlying research philosophy.

4.3.3 Critical paradigm

Having explained the two main philosophical paradigms, the critical paradigm will be discussed briefly. The critical and interpretive paradigms are similar where both paradigms contradict the positivist approach and builds on social reality is created and re-created by people. But unlike the interpretive approach, the critical paradigm does not only place emphasis on subjectivity; in fact it also encourages objective properties that tend to control experiences and perceptions, such as: political, economic and cultural authorities (Oates 2006, p.296). To make this possible, critical theorists believe that people can determinedly act in order to change their social and economic situations. However, they also believe that human ability to increase their conditions is controlled by several forms of social, cultural, and political dominions as well as natural laws and resource limitations (Myers, 1997; Klein and Myers 1999, p.69). Furthermore, Orlikowski and Baroudi (1991) argue that critical research use in IS research was limited, and described the critical approach as a way in which critical social science combines both ideographic and nomothetic approaches.

The purpose of the investigation is to contribute in identifying the factors that affect the readiness to OA, though cultural issues are uncovered but there is no intention to criticise or control the political or religious status in Kuwait. Therefore, the rest of this chapter will focus on the interpretivist approach.

4.4 Paradigm Choice

In the case of Information Science, Positivism, Interpretivism and critical paradigm are equally exclusive (Oates 2006). Therefore, the appropriate choice of a research approach will depend on the blend of the discipline influences, the question addressed and interest of the researcher. Furthermore, each approach has its own set of philosophical principles, and has its own stance on the “correct” way to perform research (Neuman, 2003). The research

approach selected by researcher defines the direction of the study and affects the research design, results and analysis (Prescott; Conger, 1995; Neuman, 2003). The decision on the paradigm selection is usually based on the given research questions, the research context, the tradition of the discipline and the researcher's willingness to take a risk and challenge traditional beliefs both of the discipline and the researcher (Oates 2006, p.304).

The adopted research questions in the current work are mainly concerned with “what”, “how and “why” which leads to multiple explanations. The research contradicts the positivist epistemological position that findings will not lead to explanation and reasoning as in the interpretive epistemology. Moreover, it is an objective and reductive approach that makes it less suitable to study the Social world. Therefore, a positivist approach makes it less favorable to be used in this research.

On the other hand, interpretive paradigm is the suitable approach for this research as the aim of the proposed questions is to explore the factors that affect the readiness to OA policy implementation. As it will provide a rich multiple subjective realities to this research and will offer more than one explanation and evidence to its expletory approach and reason. Additionally, an interpretive paradigm offers a good basis for conducting relevant research because it can facilitate the development of understanding of the realities of organizational life.

The researcher's philosophical beliefs about this research are in line with the interpretive paradigm and this can be seen in the positivist and interpretive Paradigm comparison table which is adapted after Chua (1986) (see: Table1).

Assumptions	Positivist	Interpretive	<i>This research</i>
A. Beliefs about Knowledge			
Epistemological	Theory is separate from observation that may be used to verify or falsify a theory. Hypothetico-deductive account of scientific explanation accepted.	Scientific explanation of human intention sought. Their adequacy is assessed via the criteria of logical consistency, subjective interpretations, and agreement with actors' common-sense interpretation.	<i>Researcher believes in subjective reality and explanations.</i>
Methodological	Quantitative methods of data analysis and collection which allow for generalisation favoured.	Ethnographic work, case studies, and participant observation encouraged.	<i>Contributes to realist beliefs through case study</i>
B. Beliefs about Physical and Social Reality			
Ontological	Empirical reality is objective and external to the subject. Human beings are also characterised as passive objects; not seen as makers of social reality.	Social reality is emergent, subjectively created, and objectified through human interaction.	<i>Communication is essential to understand social reality</i>
Human Intention and Rationality	Single goal of utility-maximisation assumed for individuals and firms. Means-ends	All actions have meaning and intention that are retrospectively endowed and that are grounded in social and	<i>Investigation of social practices.</i>

	rationality assumed.	historical practices.	
Societal Order/Conflict	Societies and organisations are essentially stable; “dysfunctional” conflict may be managed through the design of appropriate information systems control.	Social order assumed. Conflict mediated through common schemes of social meanings.	<i>Assumes social order</i>
C. Relationship between Theory and Practice			
	Information systems specify means, not ends. Acceptance of extant institutional structures.	Theory seeks only to explain action and to understand how social order is produced and reproduced.	<i>Aims to understand and gain explanations of the situation studied</i>

Table 1: Positivist and Interpretive Paradigm comparison adapted after Chua (1986). Researcher’s work modifications are italicised.

4.5 Research Methods

From the major research philosophies, a link can be made between quantitative data and the positivist approach, and between qualitative data and an interpretive approach. According to Bryman (2012) many researchers associate these methods to their epistemological foundations that which is quantitative with positivism and interpretivism with qualitative, but this is not necessary a fixed relationship (Oates, 2006).

Qualitative and quantitative methods are different in the way they are designed and in the way in which research is carried out. According to Myers (1997) quantitative research was designed to study natural science, with the help of: surveys, numerical methods and laboratory experiments. On the other hand, qualitative research was designed to investigate

the studies applicable to social sciences, such as cultural and social phenomena with the help of: interviews, observation, and documentary analysis.

4.5.1 Qualitative research Method

Qualitative research is built on methods of data collections, which are supple and sensitive to the social context in which data are produced and where the researcher tends to use words, images and video (Phillips and Pugh, 2000; Collis and Hussey, 2003; Oates, 2006, p.266). According to Yin (2003) it can be used to generate, describe, or test a theory. Moreover, it is well identified that qualitative research is concerned with understanding people's perceptions of their social world. According to Amatarunga et al. (2002) qualitative method is the best strategy to discover and explore new areas, and has an initial aim of "understanding the meaning of human action" (Schwandt, 2001, p.213).

There are numerous advantages for adopting qualitative methods, some of which Amatarunga et al (2002) listed: qualitative research is conducted in natural settings, thus providing a view of real life, while the fact that qualitative data are collected over a prolonged period makes the method a powerful one for studying any process. In addition, qualitative data are suitable for locating the meanings that people place on the events, process and structures of their perceptions and assumptions. However, it has been argued that the objective of qualitative study research is not to draw suggestion about some larger population, which is the case with quantitative studies, but rather to generalize back to a theory or application (Yin, 1994). According to Oates (2006 p.267) qualitative researchers have been criticised for not providing enough information about data analysis and it is not a straightforward task.

In the existing study, the qualitative approach is used to identify the factors that affect the readiness of OA policy implementation of academic staff in HE institute PAAET.

4.5.2 Quantitative Research Method

Bryman (2008) outlines quantitative research as a research that emphasises on quantification in collection and analysis of data and expresses a view of social reality as an external unbiased reality. Quantitative researchers usually originate a problem from a

significant body of literature that is available in terms of variables and existing theories that may need testing or confirmation (Creswell, 2003). Furthermore, critics who favor qualitative approaches are rarely able to distinguish between three different ways of quantitative approach and that is by: using many cases (large samples or survey), applying formal measurement (coding data numerically) and the use of mathematical/ statistical analysis techniques. Therefore, in this type of research emphasises control and measurement by transferring numbers to measurements (Bryman, 2008).

According to Bell (1999) quantitative methods limitation is the use of qualitative methods fill the gaps missing by quantitative research that focuses totally on numbers, statistics and percentages.

“In contrast with quantitative methods, qualitative studies are less interested in quantifying data but more interested in understanding “individuals” perceptions of the world” (Bell, 1999, p.8).

In the current study, a questionnaire is used to apprehend the perceptions of academic staff from HE institute/ PAAET towards OA.

Quantitative and qualitative methods are designed differently in the way in which research is carried out. However, this does not mean that they cannot be used together in a single research study. It is referred to as a mixed method approach which uses triangulation of both qualitative and quantitative data (Amaratunga et al. 2002; Myers 1997; Creswell, 2003, p.18).

4.5.3 Qualitative and Quantitative Approach (Mixed methods)

Yin (1994) states an occurrence of quantitative and qualitative data collection methods is adopted to measure the relationship between qualitative and quantitative data under two-ways approach. Moreover, the qualitative data enables the researchers to make sense of their quantitative findings. The qualitative natured data makes it easier to describe why the quantitative findings are as they are. The mixed method approach involves collecting both

numeric and text-based information which represents quantitative and qualitative data. Ghauri et al. (1995) states that:

“Qualitative methods are therefore more suitable when the objectives of the study demand in-depth insight into a phenomenon” (Ghauri et al., 1995, p.86).

This research is driven by the qualitative nature of the study as it is positioned in an interpretive perspective; therefore, it includes qualitative (interpretive) method, which is reflected in an interpretive philosophy. Conducting a qualitative study will enable the researcher to be part in a real life context in order to explore the included features and factors; it will also allow basic frameworks to evolve to the point of being able to identify those factors that affect the readiness of OA policy implementation in Kuwait HE Institute (PAAET). It is acknowledged by many researchers that a Qualitative method is powerful in giving insights, findings, and recommendations (Oates, 2006).

As this research primarily focuses on qualitative data and will be complimented by quantitative method, as discussed above (section 4.5.2). According to Lee (1991) qualitative researchers who hold some positivistic views are said to favour building techniques into their studies that follow those of natural scientists or quantitative researchers. This is known as *“Triangulation”* which is the use of both quantitative and qualitative methods in the same study.

According to Easterby-Smith, et al. (2004) there are four types of triangulation that are identified as:

1. *Theoretical triangulation*: a theory from one discipline is used to explain a phenomenon in another discipline.
2. *Data triangulation*: data is collected from different sources or at different times to study of a phenomenon.
3. *Triangulation by investigators*: where different researchers collect data independently on the same phenomenon and compare the results.

4. *Methodological triangulation*: when data collection is used from both quantitative and qualitative methods.

Based on the triangulation types above this study will use the methodological triangulation where two types of data will be used. The other options for triangulations have been considered but since time and resources are major issues and restrictions in this work. Nevertheless, in order to collect meaningful data the amount of data-collection will be controlled by the amount of time available for data collection for a PhD study. Sekaran (1992, p.219) also states that:

“...Because almost all data-collection methods have some biases associated with them, collecting data through multi-methods and from multi-sources lends rigor to research” (Sekaran, 1992, p.219).

The methods for data collection were interviews and a questionnaire. The questionnaire was adopted to explore the perceptions and key issues regarding OA policy standards and practices, whereas interviews were used to get a richer picture and identify the factors that affect readiness in detail. Librarians, Faculty members and Academic staff were selected for the questionnaire as they are the centre of academic knowledge within PAAET, they are the main contributors to decision making, advocacy and research. It is worth noting that faculty members represent the largest number of PAAET's employees so a large number of responses could be obtained. Finally, the institution's performance in terms of OA depends highly on their achievements of productivity in this area. Interviews included Senior Managers due to their commitments and availability; it was not practical to include them in the questionnaire. The choice of research methods was influenced by the perceptions and preferences of participants in taking part in a phenomenon related to policy implementation issues within a Middle Eastern setting (Kuwait in particular). For instance, personal views, perceptions, interpretation about policy are considered sensitive issues, and preference for collecting data were major factors in selecting the most appropriate research methods.

Thus this research will benefit from the methodological triangulation to add rigour and transparency to the conclusions and recommendations reached.

4.6 Research Strategy

The next reasonable step in a research process, as Denzin and Lincoln (2000) asserted, is to adopt a particular research strategy for the study. Different research strategies require different designs for collecting and analysing the empirical evidence and so the choice of research design is important (Yin, 1984; Creswell, 2003). Therefore, the choice of research design is important, Yin (1984, p.17) introduces three settings for choosing a research strategy. These three main conditions are:

- 1- The type of research question.
- 2- The extent of control that the researcher has over the actual behavioral events.
- 3- The degree of focus on current as different to historical events (Yin 1984, p.16).

Relevant situations for research strategies

Strategy	Form of research question	Requires control over behavioural events?	Focuses on contemporary events?
Experiment	How, Why?	Yes	Yes
Survey	Who, what, where, how many, how much?	No	Yes
Archival analysis (e.g. economic study)	Who, what, where, how many, how much?	No	Yes/No
Case Study	How, Why?	No	Yes
Action	How, why?	Yes	Yes/No
Grounded Theory	How, What?	No	Yes
<i>This Research</i>	<i>What, How, Why?</i>	<i>No</i>	<i>Yes</i>

Table 2: Relevant situations for research strategies adopted after Oates, 2006 and Yin, 2009. Researcher's work modifications are italicised.

By selecting the research design research questions are very important. As each research design has its ways to answer the enquiries of the phenomena in study. Please see the above (Table 2) which compares this study to the ones provided in different strategies. The research design can be in all three purposes of descriptive and exploratory or explanatory research (Yin, 2009, p.8). According to Myers (1997), there are four research methods being used by IS researchers including ethnography, action research, grounded theory and case study.

In this research the case study approach has been chosen as the most applicable research strategy for interpretive qualitative research to explore the readiness of OA policy implementation in HE institute PAAET. The following section will give the reason that researcher chose this method for this research and details about case study as a research method in the field of information systems.

4.6.1 Case study Research

In case study research a single or multiple numbers of cases (people or events) are studied by the researcher in great depth (Beins, 2004, p.94). A case study is an empirical inquiry that *“investigates a contemporary phenomenon within its real life context when the boundaries between phenomenon and context are not clearly evident”* (Yin, 2003, p.23). The case study design can be used on any mix of qualitative and quantitative evidence (Yin, 2003, p.15) but, in general, it permits:

“investigation to retain the holistic and meaningful characteristics of real-life events - such as individual life cycles, organizational and managerial processes, neighbourhood change, international relations, and the maturation of industries” (Yin, 2003, p.14).

Quoting Abercrombie, Hill, and Turner (1984, p.34) in the *Dictionary of Sociology* that highlights the advantages of a case study by stating that:

“The detailed examination of a single example of a class of phenomena, a case study cannot provide reliable information about the broader class, but it may be useful in the preliminary stages of an investigation since it provides hypotheses, which may be tested systematically with a larger number of cases” (Abercrombie, Hill, and Turner, 1984, p.34).

A case study is a practical inquiry that *“investigates a contemporary phenomenon within its real life context when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used”* (Yin, 1984, p.23) that can develop validity and that means *“establishing correct operational measures for the concepts being studied”* (Yin, 2003, p.34). Therefore, it is can be qualitative and quantitative in nature, it can employ a variety of data collection techniques such as interviews, focus groups and questionnaires.

According to Oates (2006, p.142) case studies focus on one instance that is to be investigated, such as: an organization, a department, an information system...and so on. As a case study it should be studied in depth and using a variety of methods to obtain a detailed vision of the case and its complex processes. Oates (2006) continues by arguing that case studies provide what occurs in a social setting and maybe unique to a particular situation. Therefore, case studies are often associated with interpretive paradigm which is the selected approach used for this research.

Common limitations of case study research and their management in this work

The strength of case study research is that the researcher can study people and take into account their specific characteristics and their complexity in order to try and understand behavior (Beins, 2004, p.94). Case study research cannot be generalized to the sample of population therefore some consider it to be one of its weakness, as it cannot represent people in general or go beyond the person or the group studied (Beins, 2004, p.94). In this work this limitation is not going to be an issue since the interpretive design will be generalising to theory (Oates, 2006) and not sample of population.

The case study design can be built on any mix of qualitative and quantitative data collection processes (Yin 2003, p.15). In general, a case study tolerates:

“Investigation to retain the holistic and meaningful characteristics of real-life events - such as individual life cycles, organizational and managerial processes, neighborhood change, international relations, and the maturation of industries” (Yin, 1984, p.14).

According to (Oates, 2006, p.143) an exploratory study is used to define the questions to be used in a following study and help the researcher understand the research problem. She also points out that it might be used in the case where there is little literature about a topic, so a real-life subsequent is researched, in order to identify the topics to be covered in a following research project (Oates, 2006).

Yin (2003) specifies that the case study is an appropriate strategy when ‘how’ or ‘why’ questions are being posed, since it allows the researcher to determine not only what happened but also why it happened. He also recommends case study strategy when the researcher has little control over the events and when the focus is on current phenomena. This study has its focus on current events, as it intends to answer the three research questions pertaining to the factors affecting the readiness of HE institute for OA implementation, how these factors impact upon such readiness, and why these factors are present in Kuwaiti HE institute PAAET. Additionally, the researcher has no control over this phenomenon.

The case study strategy was chosen for this research due to the exploratory nature of this study, and the questionnaire was adopted as a research instrument because it can provide.

To summarise, a case study strategy was chosen for this research due to the exploratory nature of this study. It explores in-depth of various organizational issues relating to the research in order to answer research questions and to fill in the gap that was found in the literature in regards to the readiness of OA policy implementation in a Kuwaiti HE Institute PAAET. In addition, a case study strategy is useful in the early development of a particular research area, and the study of OA implementation in developing countries. The following reasons for selecting a case study strategy are presented below:

- The case study strategy represents a multiple sources of evidence and methods (Yin, 1984, 2009; Creswell, 2003; McQueen and Knussen, 2002). Using multiple sources of obtaining data, and using both quantitative and qualitative methods, offers flexibility; also, using mixed methods serves the purpose of this research as it needs to gather, explore and analyse the practical materials from several organisational sources to answer the research questions that are related to “what”, “how” and “why” questions. (Table 4.2)
- A case study strategy has been adopted in this research because this is an exploratory in-depth study, which explores the readiness to Open Access policy

implementation in a Kuwaiti public higher education institute (PAAET). Case study research is important for the progress of social science as it helps in understanding the degree to which certain phenomena are present in a given group or how they vary across cases (Flyvbjerg, 2001, p.87). A single case study research also helps in theory development as it is likely to have important strengths such as originality, testability and realistic validity, which arise from the intimate linkage with empirical evidence that is independent from prior literature or past empirical observation (Eisenhardt, 1998, p.548).

It is worth noting that the researcher works for PAAET and this brings an understanding of the institution and its culture but, at the same time, the researcher can be seen as an influence. However, the researcher is aware of this matter and made sure that she was inactive and not involved in reporting the data in order to avoid being biased since that might affect the reliability of the results. As mentioned before, the use of quantitative data as well as qualitative data should reduce the bias of the researcher as well as add rigour to this study. As a matter of fact, being from the same culture as that under inquiry has helped the researcher to understand clearly the complexity of the situation under investigation and explore the factors in more detail. Being sponsored by the case study organisation has also helped the researcher by offering the opportunity to access and conduct all the data collection adopted for this study at PAAET.

This study is expected to contribute to a better understanding of the nature of how to implement an effective OA policy for a Kuwaiti higher education institution. In this research, both quantitative and qualitative methods were applied as in case study research. The researcher triangulated the data within the organization of case study research and used quantitative approach as an assistant based on what Hussey and Hussey (1997, p.74), have mentioned “...*It is perfectly possible, and even advantageous, to use both qualitative and quantitative methods for collecting data. A questionnaire survey providing quantitative data could be accompanied by in-depth interviews to provide qualitative insights and illuminations*”. (Hussey and Hussey, 1997, p.74). This offers the freedom and flexibility to use mixed methods.

4.7 Research Design Implementation

Research design deals with at least four issues: what questions to include in the study, what data are relevant, what data to collect, and how to analyse the results (Philliber *et al.*, 1980). In the research design, it needs to be noted that the research questions of “how”, “why” and “what” are very important as each design has its own ways of answering the enquiries concerning the phenomenon being studied; this includes many purposes of descriptive, exploratory or explanatory research (Reaves, 1992; Neuman, 2004; Yin, 2009).

The research questions were drawn from the literature review and structured based on “A theory of organizational readiness for change” TORC (Weiner, 2009) TORC was used to divide the contextual factors of the theory, these were structured fittingly for the interviews and the questionnaire questions. This theory identifies many issues relating to organisational and cultural issues that need to be investigated when implementing an OA policy. In addition, the background of the researcher and her experience with the study context and its environment played an important role in selecting the most appropriate methods to collect data so that the aims and objectives of this research could be achieved.

Therefore, this study is an exploratory research designed to explore factors that were identified in the literature, together with organizational and cultural factors that can influence the readiness of OA policy implementation in higher education that have not previously been investigated, particularly in Kuwait.

This research is also descriptive, as quantitative statistics are provided to describe the characteristics of the sample used in this study relating to their perceptions towards OA and the level of readiness for OA policy implementation. The qualitative data explores the perceptions but gives an in-depth insight on the readiness of OA policy implementation in PAAET/ Kuwait in particular. The research questions were presented to different members of academic staff to help in understanding the issues of OA and OA policy; which are related to both organisational and academic members who are also related to the subject of OA policy implementation strategies and processes; these are the main

stakeholders as identified from the literature. The different levels of participants involved and the mixed method approach helps in cross-relating the findings of this study.

4.7.1 Interviews

It was decided to carry out interviews with the senior management, middle management, librarian and faculty members' as they are the official representatives in PAAET's authority and colleges in order to answer research questions 1, 2 and 3 that reflect objectives 2 and 3. Interviews are one of the most essential methods of information, experience and opinions in case studies; this is a valuable technique for gaining data, mostly in the case of qualitative research, and it can take place over the telephone or face to face (Yin, 2009). Clarke and Dawson (1999, p.72) described the interview as "*a conversation with purpose*". According to Henerson et al (1987, p.24) it is:

"A face-to-face meeting between two or more people in which the respondent answers questions posed by the interviewer who is free to pursue an interesting response if he/she feels it useful" (Henerson et al, 1987, P.24).

Interviews are mainly useful for getting the story behind a participant's experiences. The interviewer can pursue in-depth information around the topic. Interviews may be useful as follow-up to certain respondents to questionnaires, to further investigate their responses (McNamara, 1999). There are three types of interview: structured, unstructured and semi-structured. Structured interviews are conducted when the interviewer knows exactly what information is required (Sekaran, 1992, p.192; Robson, 2002). Semi- structured interviews contain questions on a particular topic and general discussion (Have, 1999). On the other hand, the objective of an unstructured interview is:

"to surface some preliminary issues so that the researcher can formulate a good idea of what variables need future in-depth investigation" (Sekaran, 1992, p.190).

According to Oates (2006) semi-structured and unstructured interviews are used for primary 'discovery' therefore, they are used for exploring personal beliefs, in other words, they allow the interviewees to speak freely of their thoughts. This allows the interviewee to express his/her own opinions more freely to formulate a larger or other enquiry.

As this is an explorative research case study, semi-structured interview was selected in order to obtain particular information that could give the researcher face-to-face insight into the topic being investigated. This is because the face-to-face interview is a purposeful conversation between participants who are physically in the same place (Oishi, 2003, p.1). Face-to-face interviews offer in-depth information access and allow observations to be made of the surroundings. The qualitative research interview seeks to describe and the meanings of prospective in the life experience of the participants. This gives a strong direction towards using interviews for this research. The purpose of the interview is to avoid the disadvantages of self-completion questionnaires, to improve the reliability of the primary data collected through the written questionnaires, and obtain more accurate and precise information regarding the topic under investigation. According to Hussey; Hussey (1997), the main advantage of interviews is that they allow for more clarifications and permit the asking of further complex and follow up questions, which is not possible in a written questionnaire. Therefore, more clear data can be obtained by allowing participants to expand on their answers and offers the researcher the opportunity to question in-depth some of the responses which cannot be anticipated at the outset of this exploratory study.

In this study, interviews are purposefully selected to obtain specific information that will give insight for the research under study. The following sections will justify the selection of the purposeful sampling for this study.

4.7.2 Questionnaire

Questionnaires are data-gathering instrument used to collect data beyond the physical vision of the researcher in order to explore deep data within minds, attitudes, feelings, experiences, knowledge, and opinions of participants. A questionnaire differs from an interview, as it is a more impersonal probe. That is, the respondents answer the questionnaire anonymously without the influence of the researcher (Sekaran, 2000).

Saunders *et al.* (1997, p.244) argued that the questionnaire survey is often the only way available for developing a representative picture of the attitudes and characteristics of a large population. A questionnaire is similar to a structured interview and is an essentially written set of questions that are pre-formulated to which the respondents record their answers (Sekaran, 1992).

This view is shared with others such as Oates (2006) who defines questionnaires as “...A pre-defined set of questions assembled in a pre-determined order” (Oates, 2006, p.219). It is commonly used in quantitative research to obtain numeric data and to gain opinions in a structured manner (Ajetunmobi, 2002).

It is also argued that the main aim of using questionnaires is to contain analysis of patterns and possible comparisons, it can also be accomplished in various ways, either in person or by mail or electronically to a wide geographical range with the benefit of low cost (Walliman, 2005; Sekaran, 1992, p.200). However, the views expressed by these authors on costs can be inaccurate since even with a questionnaire there are costs associated for example with the promotion of the questionnaire, sometimes the increased need for incentives to motivate participations such as random survey winners and monetary rewards for anyone who completes the questionnaire. It is important to avoid being unreliable with a large sample and this also could improve the statistically considerable results (Bell 1993), although this study is not positivist in nature and statistical validity is not considered essential, questionnaire data will be used to provide context to the analysis.

The questionnaire was selected in this research to obtain data on perceptions towards OA, OA policy requirements, organisational recourses and tensions in regards to implementing OA policy. It was issued to academic staff in order to obtain a descriptive and general picture of differences in the respondents' views over a large sample population. This questionnaire was adopted to answer research questions, Q1: What are the perceptions of stakeholders in respect of OA in PAAET? and Q2: What factors affect the readiness of OA policy implementation?, that also reflects of objectives 2 and 3 (Chapter 1). Therefore, the self-completed questionnaire was designed based on an extensive literature review.

Two types of questions that can be used in questionnaires are similar to interviews: close-ended questions and open-ended questions (Sekaran, 1992, p.190).

- **Closed- ended questions**

In closed-ended questions, respondents to the questionnaire respond to an offered set of answers to the questions provided (Frankfort-Nachmias and Nachmias, 1992, p.242). The main advantages of closed-ended questions are: it is easy to compare answers from different respondents; the answers are simple to codify and analyse statistically; the choices of response can clarify the meaning of questions for respondents; respondents are likely to offer an answer even when topics are sensitive; there are fewer irrelevant or confused answers to questions; and duplication is easier (Frankfort-Nachmias and Nachmias, 1992, p.242; Neuman, 2004, p.178). On the other hand, the main disadvantages of closed questions are: Closed questions force the respondent to choose from a range of answers that have been pre-defined and if the desired answer is not available the respondent may get discouraged (Oates, 2006, p.222), in other words, respondents are forced to respond or make selections from answers that they might not select in reality (Frankfort-Nachmias and Nachmias, 1992, p.242; Neuman, 2004, p.178).

- **Questionnaire’s Closed-ended questions “Advantages and Disadvantages”**

Advantages	Disadvantages	<i>This Research</i>
Easy comparison between different respondents answers.	Respondents can feel discouraged to respond because the desired answer is not among the choices provided.	<i>Academics are pressed for time and are likely to reply using the closed ended questions more than the open ended- questions.</i>
Answers are easily analysed statistically and simple to codify.	Some respondents might not have an opinion or knowledge of the answer but will answer anyway.	<i>Most respondents are likely by not having an opinion and very low knowledge of the topic.</i>
The respondents can understand the questions from the choices of answers.	Force respondents to answer or make choices from answers that they might not select in the reality.	<i>Most respondent made random or neutral choices due to lack of knowledge of the topic.</i>
Respondents are comfortable and more likely to answer		<i>Respondents were more comfortable to answer</i>

especially when sensitive topics are present in the research.		<i>due to concealment of their identities.</i>
Replicating questions is easy and Unrelated or confused answers to questions are unlikely to occur.		

Table 3: Questionnaire’s Closed-ended questions “Advantages and Disadvantages” (Frankfort-Nachmias and Nachmias, 1992, p.242; Neuman, 2004, p.178), Researcher’s work modifications are italicised.

- **Open- ended questions**

According to Oates (2006, p.222) open-ended questions gives the respondent the liberty in what answer they want to give. Open-ended questions do not follow any kind of specified given choice of answers and the respondents' answers are recorded in full (Frankfort-Nachmias and Nachmias, 1992, p.242).

- **Questionnaire’s Open-ended questions “Advantages and Disadvantages”**

Advantages	Disadvantages	<i>This Research</i>
Allow an unlimited number of possible answers.	Different degrees of detail may come from different respondents.	<i>Very low numbers of answers were obtained from the respondents.</i>
Respondents can answer clearly and give detailed responses.	Respondents may give incompetent and unrelated answers.	<i>Some respondents gave incomplete answers.</i>
Respondents can express their opinion in rich detail.	Statistical analysis and making comparisons can become difficult.	<i>Some respondents gave unrelated answers.</i>
Complex issues and be answered in a satisfactory	Difficulty in coding the responses.	<i>Most respondents were unlikely to respond due</i>

manner.		<i>to time consumption.</i>
Reveal unanticipated findings.	Consumes respondent's time.	<i>Most respondents were unlikely to respond due to low knowledge about the topic.</i>
	Answers require a lot of space in the questionnaire sheet.	

Table 4: Questionnaire's Open-ended questions "Advantages and Disadvantages" (Frankfort-Nachmias and Nachmias, 1992, p.242), Researcher's work modifications are italicised.

Therefore, the questionnaire is selected as one of the data collection tools since it could cover a large number of populations within the study.

This research employed a combination of both closed and open-ended questions. Closed questions will be used to facilitate respondents' understanding of the topics concern, and remind them of the points that they may not think about. On the other hand, open-ended questions will allow the respondents to add their comments and make suggestions on the issues included in the questionnaire.

4.8 Research's Data Collection Techniques

The selected case study strategy involves gathering facts by using two data collection techniques to explore the readiness to OA policy implementation, as well as to provide data and evidence to understand the real situation and to achieve the research's objectives. Interviews and questionnaires are the selected techniques that will be explored with the main stakeholders in the academic society of senior management, research active members and librarians as they present the main contributors in Kuwaiti Higher Education Institution/ PAAET in relation to the research in study. The techniques will be piloted in advance and the main reason for this is to ensure that the questions are clear and are worded correctly.

4.8.1 Interview Protocol and Pilot

Face-to-face interviews is designed and conducted with the senior and middle Management of PAAET who are the senior, decision-makers for applying OA policy initiatives. Interviews were also conducted with librarians and faculty. Semi-structured interviews were conducted as this type of interview allowed the researcher to ask different types of question.

- **Structure of the Interview Protocol**

The interviews used a semi-structured face-to-face strategy consisting of different numbers of questions depending on the participants' individual specialty. This was in order to explore issues about OA policy implementation. It examined the current situation of OA trend and explored perceptions relating to OA and OA policy in PAAET, in addition, to the organizational structure and culture that are faced during policy implementation. The researcher took the following steps before conducting the case study interviews.

- **Generating and determining the interview questions**

The main purpose of the questions used in the interviews was to collect sufficient data and information to achieve the aim and objectives of this research. The literature review and previous studies were the main sources for forming the interview questions and organized according to the contextual factor from the theory. The interview questions were discussed with the supervisor. In this respect, Collis and Hussey (2009, p.126) suggest some useful techniques such as:

“... regarding what has been done in similar research studies, using a single focus and specifying the research site and using open-ended questions without reference to the literature or theory, unless otherwise dictated by the research design”. (Collis and Hussey, 2009, p.126)

- **Developing the interview questions**

In this step the researcher developed the interview questions after discussion with the supervisor and 4 members of the Open Access team at the University of Salford who are knowledgeable in the OA trend and OA policy. They checked the suitability of the interview questions for the participants, and checked if the questions were easy to understand and were clear for the participants in this study. Moreover, this development of the interview questions provided the researcher with excellent feedback about the suitability of the questions to be used in the real case study. This also tested the information dependability of the questions that were to be used in the interview (See Appendix 3).

An example of the edits that were made for the interview questions and how they were refined:

The questioned that was, e.g:

- What are the main specific problems and challenges in your opinion that inhibit the practice of open access policy and how do you think they can be overcome?

It was suggested to change the wording, since there is no previous practice of OA and the possibility of low awareness in the different aspects of OA in general. Therefore it was proposed to refine it to:

- In your opinion, what are the cultural challenges that could face the institution when implementing an Open Access Policy?

As by this question structure some organizational culture may be uncovered and it might show if PAAET has a unique organizational culture that may differ from others HE institutes.

- **Translating the interview questions in Arabic**

This study was conducted in Kuwait, and being an Arab country, the researcher translated the interview questions into Arabic. Also, in order to ensure the accuracy of the questions, the researcher relied on an English/Arabic translator from Kuwait.

- **Conducting the Pilot Study**

Before conducting the pilot study, ethical approval was obtained from the University of Salford. It is believed by many experts in the area of research methodology that the

interview questions should be subjected to preliminary testing which is known as a pilot study (Hussey and Hussey, 1997; Sekaran, 2003; Yin, 2009). In this study the researcher conducted a pilot study for the interview questions. After translating the interview questions into Arabic, the researcher generated and developed these questions by testing them on four of the librarians in PAAET. The research also used the pilot study to test and check the participants' understanding of the research issue and their understanding of the field interview questions. Moreover, the pilot study provided the researcher with excellent feedback about the suitability of the questions to be used in the real case study. The pilot study method considered the information dependability of the questions, which were used in the interviews. This pilot study was undertaken during May 2011.

4.8.1.1 Interviews Sampling

The senior and middle management of PAAET play an important role in any planning and decision-making regarding OA policy, academic staff like librarians and faculty members also play an important role as they are the beneficiaries for such policies. Therefore, opinions toward the current situation concerning their perceptions on OA, together with their readiness to OA policy implementation, are important. Sixteen interviews were carried out with senior and middle management of PAAET, including faculty members and librarians as they are directly related to implementing OA initiatives (see Table 4.7).

1. PAAET Senior and Middle Management

Senior and middle managers are chosen because they are decision makers when it concerns to policies and strategies; they are also the budget holders for the plan of any new system implemented in the institution. The organisational structure in PAAET is very hierarchical and the decisions of higher management are mostly followed and implemented by others. This structure of structured organisational pyramid with clear command and control of an organisation makes it paramount for this research to gain views from senior decision makers. Therefore, they are involved in any policy making for PAAET. The interviews provided an in-depth approach into views and of senior managers towards the importance of Open Access policy and the use of Open Access system. Their

opinions concerning the role of Open Access will influence the process of its decision around its adoption, implementation and future sustainability.

2. Faculty Members

Faculty members engage in research and part of their responsibilities depends largely on new developments in their field and their contribution towards research, thereby, they are the main beneficiaries in the implantation of OA policy. The interviews will provide an in-depth approach into their views towards OA and their needs of OA policy type and the use of OA system (IR). Their opinions concerning the need of Open Access will influence the process of its implementation and sustainability in the future.

3. Librarians

Librarians have an important role to play in the growing information environment. There are 19 libraries across PAAET supported by librarians under the deanship of libraries; they provide services to faculty and students with information and references to support their academic needs. The interviews will provide an in-depth approach into their views towards OA and OA policy implementation. Their opinions concerning the need of OA policy will influence the process of its implementation and its long sustainability.

Participant	Position	Code	Interview Date
Interview 1	Senior Management	HM 1	<i>27/07/2011</i>
Interview 2	Senior Management	HM 2	<i>27/07/2011</i>
Interview 3	Senior Management	HM 3	<i>07/08/2011</i>
Interview 4	Senior Management	HM 4	<i>09/08/2011</i>
Interview 5	Middle Management	D 1	<i>12/07/2011</i>
Interview 6	Middle Management	D 2	<i>14/07/2011</i>
Interview 7	Middle Management	D3	<i>30/07/2012</i>
Interview 8	Middle Management	D4	<i>07/08/2012</i>
Interview 9	Librarian	L 1	<i>11/08/2011</i>
Interview 10	Librarian	L 2	<i>14/08/2011</i>
Interview 11	Librarian	L 3	<i>17/08/2011</i>
Interview 12	Librarian	L4	<i>07/08/2012</i>
Interview 13	Faculty Member	F 1	<i>07/08/2011</i>
Interview 14	Faculty Member	F 2	<i>29/07/2012</i>
Interview 15	Faculty Member	F 3	<i>02/08/2012</i>
Interview 16	Faculty Member	F4	<i>06/08 2012</i>

Table 5: PAAET's Interviews Sample

In the face-to-face interviews the researcher used semi-structured questions; the interviews involved 16 key members of staff of the Public Authority of Applied Education and Training (PAAET), as shown in Table (4.7) below. The interviewees included the senior Management (HM1, HM2, HM3, HM4) and middle management (D1, D2, D3, D4) of PAAET who are the senior, decision-makers for applying policy

initiatives. Interviews were also conducted with librarians (L1, L2, L3, L3) and faculty (F1, F2, F3, F4). These interviews were conducted between July 2011 and August 2012.

- **Conducting the actual interviews**

All the interviews were conducted in the Arabic language (the mother tongue of the interviewees and the interviewer). This allowed participants to feel relaxed and comfortable when giving their responses. However, they were not relaxed to allow the researcher to tape-record the interviews, therefore, the researcher had to take notes. The researcher began the interviews by describing the importance of their contribution to this study, with regard to the fact that they are the key stakeholders for promoting any strategies regarding an OA policy. The views of 16 interviewees regarding some of the aspects of introducing OA to PAAET/ Kuwait in terms of the current situation, the main problems and obstacles it might face, and the potential solutions for its implementation. In the interviews, the perceptions of interviewees towards OA and its need in their institute specifically, is crucial in identifying any plans or strategies to promote OA policy across PAAET. The other main issue that was explored in the interviews was their readiness towards OA policy implementation in the institution (See Appendix 3). The following research objective was addressed: “to explore the perception of Kuwaiti HE institution PAAET stakeholders towards OA” (objective 2), and “to identify the factors that affect the readiness of OA policy implementation in PAAET” (objective 3).

Notes from the interviews were later converted into Microsoft Word documents on the same day. After each interview the researcher gave the opportunity to the interviewees to add any further comments and then thanked them for their contributions and participation. Each interview took approximately 30 to 40 minutes.

4.8.2 Questionnaire Design and Pilot

This method is suitable for collecting data when what is required will be measured and known in advance. In other words, when the questionnaire data in this study are not being used to determine reasons or meanings but to compare between responses and to compare results with the qualitative analysis to enhance the transparency of analysis. The questionnaire in this study will focus on the perception of Kuwaiti Higher Education

institution/ PAAET stakeholders towards the implementation of OA policy and policy factors that are related to OA implementation issues. It will also cover a large number (352 Participants) of the academic population to respond to the different methods of communication that might affect the success of Policy initiatives.

As mentioned earlier, the questionnaire can be managed in many different ways, either in person, electronically or by mail (Sekaran, 1992, p.200). As a result of the researcher's knowledge of PAAET, mail and in person methods will be chosen in terms of distributing and collecting the data. The questionnaire is designed containing both closed-ended and open-ended question for PAAET's academic staff. The reason for selecting this type of questionnaire is to try to gather a wide range of views from academic staff concerning their perceptions towards OA policy, as well as their views on certain OA policy issues. As the open ended question gives the opportunity for the academic staff to write their views freely about the issues that were raised in the questionnaire. These issues might be sensitive to some academic staff and this type of questionnaire is to offer them different ways of expressing their views freely without being observed within direct communication.

- **Questionnaire Design**

The process for designing the questionnaire that will be used in this research is adopted from Frazer and Lawley (2000, p.19) and modified by the researcher to reflect an interpretive perspective, according to Oates (2006, p.294), Lincoln and Guba (1994) instead of speaking of research validity as in the positivist research, interpretivist ask how much trust we can place in the research which its called "Trustworthiness". Therefore, it is worth noting that the researcher did not depend on validity; the process consists of five steps as shown in figure (4.2).

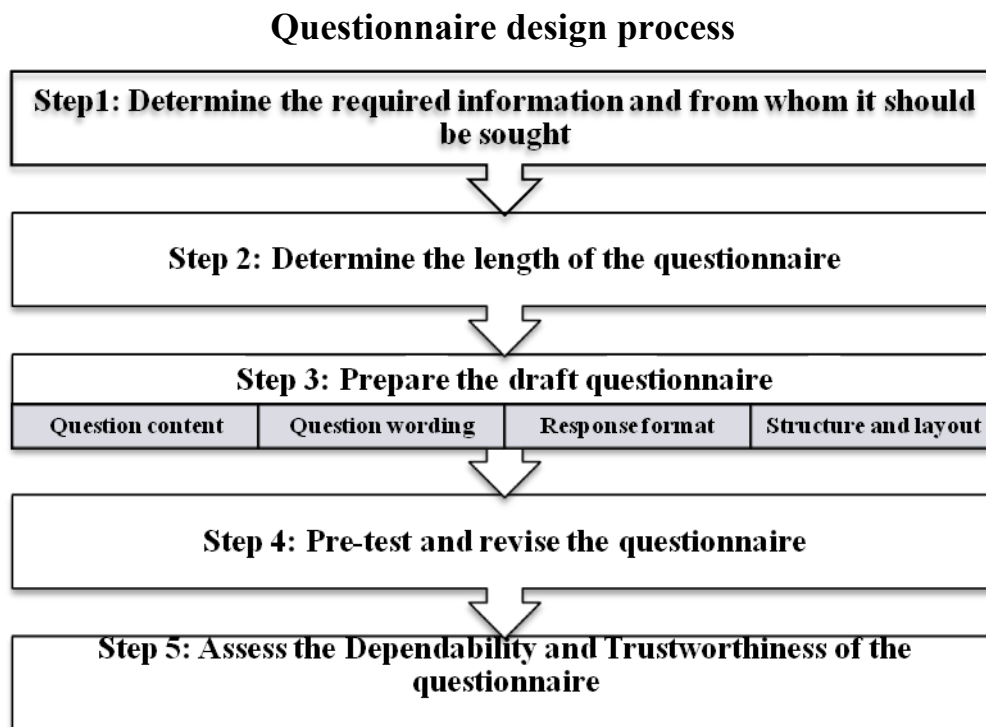


Figure 3: Questionnaire design process (Frazer and Lawley, 2000, p.19) modified by the researcher according to (Oates, 2006, p.294)

Step 1: Determine the required information

This is an important stage of the questionnaire’s design process and that is to determine the required information; which is drawn from the research objectives and the literature was used to guide questionnaire development. A questionnaire justification table is available in (Appendix 9) section.

Step 2: Determine the length of the questionnaire

There are several methods that a questionnaire can develop. These will include questionnaires that are personally performed, mail questionnaire or telephone or Internet interviews (Frazer and Lawley, 2000, p.22). It was personally administered, and some were distributed with the assistance of secretaries of the departments. In addition, the researcher was present during the fieldwork to resolve any problems in distribution and collection of the questionnaires. This method ensures that the questions are understandable

and clear. It is also necessary to explain to the respondents the purpose for conducting the questionnaire. This was achieved by providing the respondents a letter of consent with the information regarding the research aims and confidentiality. The length of the questionnaire is designed to minimize the time required to complete it in order to avoid the loss of interest of the respondents. The questionnaire contained 6 sections including 32 questions (2 multiple-choice questions, 28 scale questions and 3 open ended questions).

Step 3: Preparing the draft questionnaire

Four important structures are taken into consideration at this stage: question content, question wording, the desired format of the responses, and the structure and layout of the questionnaire (Frazer and Lawley, 2000, p.22).

- **Question content**

The question content of the questionnaire was determined by the information that is required and is drawn from both reviewing the literature and the research objectives.

- **Question wording**

Question wording is important in questionnaire design and has an influence on the response rate (Frazer and Lawley, 2000, p.24). The supervisor and several subjects from the OA team members in the University of Salford reviewed the question wording.

Suggestions were made about the questionnaire's wording, as it was found that the questions were structured in a very "positive" way towards OA. Therefore, it was suggested that it would be worth asking some control questions – i.e. instead of "Open access publishing helps avoid duplication in research efforts." It should be "Open access publishing DOES NOT help to avoid duplication in research efforts."

- **Response format**

There are generally acknowledged to be three types of questions: close-ended questions, open-ended questions and scaled-responses (Sekaran, 1992, p.190; Frazer and Lawley, 2000, p.26) all three forms of questions are used in this study's questionnaire:

1. **Close-ended questions:** the questionnaires that include close-ended questions or pre-coded that have lots of tick boxes for respondents to fill in (Sekaran, 1992; Fisher, 2004). The closed-ended questions force the respondent to choose from a range of answers that have been pre-defined (Oates, 2006, p.222).

- Multiple-choice questions give the respondent a choice of answer, to which the most closely suited answer should be ticked (Anderson, 1998; Oppenheim, 1992).

- **Multiple-choice questions**

Example:

<p>1. Where do you work at PAAET?</p> <p>a. College of Basic Education</p> <p>b. College of Nursing</p> <p>c. College of Business</p> <p>d. College of Technology</p>
--

2. **Scale questions** measure the scale of feeling against a set statement (Anderson, 1998). Likert questions are the most common method of testing scale data, and many researchers agree that the five point “Likert scale” is the most effective, although seven, nine and eleven point scales are possible (Anderson, 1998; Idea, 2007). The five point scale was chosen because this gives a smaller distribution of responses given the relatively small sample of respondents, this also gives some participants to make a “neutral” choice – unlike in 4 or 6 scales which force participants to take a side.

- **Scale questions measure**

Example:

No	Opinions	Strongly Agree 1	Agree 2	Neutral 3	Disagree 4	Strongly Disagree 5
1	Open access is important.					
2	My institution is aware about Open Access.					
3	Open Access will have an impact on my role in my institution.					

3. **Open-ended questions** in the questionnaire are the questions that have plenty of space for people to make their responses in their own words (Sekaran, 1992; Fisher, 2004). According to Oates (2006), open questions give the respondent the liberty in what answer they want to give.

- **Open-ended questions**

Example:

<p>31. In your opinion, what are the cultural challenges that could face the institution when implementing an Open Access Policy?</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>32. How do you think these cultural challenges can be overcome?</p> <p>.....</p> <p>.....</p> <p>.....</p>
--

The questionnaire consists mostly of scaled-response with a chance for the academic staff to express their own views through three open-ended questions. This balance was primarily driven by the practicality of getting as many responses as possible and balancing the usefulness of data received for answering the stated research questions.

- **Structure and layout**

The order of the questions is an important factor that motivates respondents to complete the questionnaire (Frazer and Lawley, 2000, p.28). This is taken into consideration in order to avoid any negative attitudes towards the questionnaire and that is why the personal questions and open-ended questions were left to the end. The structure and layout of the questionnaire is designed to be simple in order to encourage respondents to complete it.

Step 4: Pre-test and pilot study

Similarly to the interview pre-testing is needed in conducting a questionnaire that is to detect and eliminate any possible problems within the questionnaire (Frazer and Lawley, 2000, p.33). Since the questionnaires are designed in this study to be self-administered this steps was more important that of testing the questionnaires where the researcher was able to intervene and clarify certain points should they arise.

Table (6) shows the two stages used to pilot the questionnaire in this research. It also shows sample size, the targeted sample and the main reasons for undertaking each stage. In the first stage, the questionnaire was distributed to five of OA team members at the University of Salford as they are familiar with the subject of study. Comments were received about the wording of some statements and the layout of the questionnaire. All the comments were considered and changes made. Furthermore, the questionnaire was produced both in English and Arabic as the study was carried out in Kuwait. The Arabic version was sent to a translator to compare the two versions as they had to be accurate in terms of the statements having precisely the same meaning before distribution. The second stage involved piloting the questionnaire by sending it by e-mail to four librarians from PAAET. The comments from the four participants concerned the instructions, information on the cover page, and the questionnaire's layout. All changes were made to produce the final version of the questionnaire that is presented in Appendix 6.

Stage	Sample Size	Target Sample	Reasons
Stage 1 Pre-Fieldwork visit	5	Open access Team (University of Salford)	Same Background Easy to contact No cost involved
Stage 2: Pilot Study	4	PAAET Librarians	Reflect real situation Relatively cheap

Table 6: Pre-test and pilot study stages

Step 5: Dependability and Trustworthiness of the questionnaire

The final stage of the design process concerns the dependability and trustworthiness of the questionnaire. Lincoln and Guba (1985 cited in Oates, 2006, p.294) propose a set of criteria for interpretivist research that are different to, but parallel to, those for positivist research. Among these are dependability which is parallel to reliability, and trustworthiness which is in parallel to validity, therefore instead of asking of the research's validity as a positivist, we can ask how much trust we can place in the research. And this also goes for dependability (reliability) of the researcher to carry out and document all the research in the expectation that one could take place. Frazer and Lawley (2000, p.35) stated that reliability is involved with the consistency of measurement of the instrument (Bryman 2004, p.70). In other words, the data is measured for internal consistency during the process of analysis, in order to confirm there are no contradictions in the responses. In this research it is not be possible to show this type of reliability check due to the lack of time and the issue of the convenience of the research subjects.

Inter-observer consistency requires the participation of subjective judgment in cases where there is more than one observer or more than one data record used in the research. This raises the possibility of a lack of consistency and introduces a limitation to the data collected (Bryman 2004, p.71). To show this type of reliability in this research is not necessary as the research will be conducted by a single researcher. Internal reliability testing is performed in order to check whether the scores of the research respondents on any one indicator tend to be related to their scores on the others (Bryman 2004, p.71). This research uses reverse forms in some of the questions to check the reliability of the questionnaire.

4.8.2.1 Questionnaire sampling

The selected academic staff that took part in the questionnaire were selected randomly are middle management (3.9%), librarians in library colleges and Institutes (19 libraries) in addition to the administrative librarians in the deanship of libraries (32.5%). Faculty members of five major colleges (College of Basic education, College of Nursing, College of Health Sciences, College of Business and College of Technological Studies) (57.8%) and administrative staff in the Research Department (5.8%) also took part in the questionnaire.

As the faculty members are considered the larger portion of the population (57.8%) in the study and the researcher was not able to interview them individually due to the inconvenience of time and location. The overall response rate was 43.75% (154 out of 352) respondents across all different departments – see breakdown by department in table 7.

Participants	Frequency	Percentage
College of Basic Education	22	14.3%
College of Nursing	11	7.1%
College of Business	16	10.4%
College of Technological Studies	19	12.3%
College of Health Sciences	21	13.6%
Libraries	31	20.1%
Research Department	9	5.8%
Deanship of Libraries	25	16.2%
Total	154	100

Table 7: Questionnaire sampling (Departments and Colleges)

- **Questionnaire Distribution**

The questionnaire distribution was based on the following considerations:

- Arabic versions of the questionnaire were prepared as it is the commonly used language in questionnaires and so that academic staff felt contented to complete the questionnaire.
- The questionnaires included a covering letter and were placed in an envelope, which also contained a self-addressed envelope.
- The questionnaires were distributed and collected via the colleges' departmental secretaries. This strategy was designed to increase the number of responses as the secretaries manage and administrate academics schedules and are in the same buildings.
- A contact was established with the departmental secretaries, using telephone and direct personal contact, in case there were problems or a need for clarification of any issues.
- Reminder letters were sent via the colleges department's secretary to those academic staff who had not responded (2 letters with in two weeks).

4.9 Data Analysis Techniques

Both qualitative and quantitative data were collected during the fieldwork at PAAET using the following data collection methods: interviews and questionnaires. A significant amount of qualitative data was collected from the interviews and very few from the open-ended questions of the questionnaire. Therefore, such data was analysed manually due to the language of the transcripts that were in Arabic and the researcher had to translate the findings into English.

As mentioned before in this research, the mixed methods were used that include semi-structured face-to-face interviews and questionnaires. After gathering the data from the participants in PAAET, data analysis is an important step of the research as it helps the researcher to examine the collected information and prepare the conclusions based on them.

A significant amount of qualitative data was collected from the interviews and the open-ended questions of the questionnaire. In qualitative data, according to Saunders *et al.*, (2007), Bryman (2004) and Robson (2002), there is no fixed rule or standardised approach, no clear and acceptable set of agreements for analysis of qualitative data. Furthermore, Saunders *et al.* (2007) explained that qualitative analysis usually involves the development of data categories, determining units of the researcher's original data to suitable categories, identifying relationships within and between categories of data, and developing schemes to create well-grounded conclusions. On the other hand, According to Oates (2006, p.267) qualitative data analysis involves extracting from the research data the verbal, visual or aural themes and patterns that the researcher thinks are important to the research topic.

Collis and Hussey (2003) clarified that many authors have tried to identify what they concern as the main elements of an analysis of qualitative data and stated that general analytical procedures can be use with any methodology; the researcher followed all of the steps outlined below:

1. Convert all rough field notes into the form of written record.
2. Confirm that any materials collected are properly referenced.
3. Read the data many time in order to become familiar with it.
4. Start coding the data as early as possible, coding each concept or theme, as the coding allows for the effective storage, retrieval and organisation of data.
5. Start grouping the codes into smaller categories according to patterns or themes that emerge.
6. Write summaries of the findings at various stages.
7. Use the summaries to construct generalisations that confront existing theories or be used to construct a new theory.
8. Continue the process until satisfied that data collected are sufficiently robust to stand the analysis of existing theories or the construct of a new theory.

According to Collis and Hussey (2003) the value of the analysis of qualitative data is dependent upon the quality of the researcher's interpretation, and the final step in analysing qualitative data is to evaluate the analysis reached. Different measures can be used to evaluate an interpretive research and consequently, evaluate the quality of the

analysis. Lincoln and Guba (1985, cited in Collis and Hussey, 2003) suggest that four criteria can be used:

Credibility: demonstrates that the research was conducted in such a manner that the subject of the enquiry was correctly identified and described. Credibility can be improved by the researcher involving him/herself in the study for a prolonged period of time, by persistent observation of the subject under study to obtain depth of understanding, by triangulation by using different sources of evidence, and by peer debriefing by colleagues on a continuous basis. Among those techniques, the credibility of this study was enhanced by triangulation of data collections by different sources of evidence such as interviews and questionnaires. Peer and colleagues' reviews enhanced the credibility; the researcher and other researchers from different schools within the University of Salford held regular meetings to discuss their research and related methodology.

Transferability: this is concerned with whether the findings can be generalised to another situation.

Dependability: this illustrates that the research process is systematic, rigorous, and well documented.

Conformability: this should be used as a criterion where the study has described the research process fully and it is possible to assess whether the findings flow from the data.

According to Yin (2009) there are five analytic techniques used for case study analysis, these being: Pattern Matching, Explanation Building, Time-Series Analysis, Logic Models, and Cross-Case Synthesis.

- **Pattern Matching:** pattern matching logic is used to compare an empirically-based pattern with a predicted one. If the case matches the predicted patterns then the case supports the theory in the same way as successful experiments support a theory. If the pattern coincides, the results can help to strengthen the internal validity of a case (Yin 2009).

- **Explanation-building:** explanation- building is a special type of pattern matching. The goal of this technique is to analyse the case study data by building explanations about the case. Yin (2009) suggested that in explanation-building processes, the findings are compared to any statement or proposition created.
- **Time-Series:** the time-series technique is a special and more rigorous case of process tracing, Yin (2009) argued that if the events over time have been traced in detail and with precision, time-series analysis technique may be possible.
- **Logic Model:** the logic model deliberately stipulates a chain of events over an extended period of time. The events are in a repeated cause-effect-cause-effect pattern, whereby a dependent variable (event) at an earlier phase becomes the independent variable for the next phase. This process can help define the sequence of programmatic actions that will accomplish the goals (Yin 2009).
- **Cross-Case Synthesis:** cross-case synthesis is a technique especially relevant to a research consisting of at least two cases. According to Yin (2009) this technique treats each individual case study separately.

Based on the above description and discussion of different techniques used for qualitative data analysis, the researcher adopted the explanation-building technique as a data analysis method since during the data collection process, unpredicted patterns emerged and needed to be tackled.

Moreover, the questionnaire results are presented using; percentages distribution tables of the comments by the respondents. Analysis of the data was undertaken using the descriptive method; this will allow the participants' perceptions to be identified. Excel 2011 software has been used (pivot tables) to analyse the data collected from the questionnaire.

As a result of the analysis procedure, the findings from the data analysis were engaged with the other sources that were used during the data collection such as literature and according to the research methodology. Therefore, to reduce the possibility of errors different approaches and techniques were used for investigation.

4.10 Summary

This chapter introduced the research philosophy, strategy and design of the chosen methods. It was well described that this research was a single exploratory case study, as the research explores factors that influence the readiness of OA policy implementation in PAAET that cannot be generalised to other organisations or institutions. Furthermore, a mixture of methods, using both qualitative and quantitative approaches, were adopted to answer the research questions and to fulfil the aim and objectives of this research. Interviews and questionnaires were carefully selected as methods and were designed to avoid improve trustworthiness in data collected.

In the following chapter, the research findings (related to the readiness of OA policy implementation) from the case study Kuwaiti public higher education institute (PAAET) will be highlighted and presented in the relation of the Kuwaiti public higher education environment context.

5.0 Introduction

This section describes the qualitative analysis of the interview findings, to establish a rich, in-depth picture of the issues explored in this study. Semi-structured interviews are important in relation to the sensitive issues relating to this research, and the respondents were interviewed individually to discuss the readiness of OA policy implementation in PAAET. All the respondents were assured of the confidentiality of the information they provided in the interviews; their names and positions will not be mentioned in the research and have been given unique codes, as mentioned below. In addition, their identity is respected throughout this research.

Semi-structured interviews were considered appropriate, as they offer an opportunity to ask more exploratory questions, for example about the “lack of communication and collaboration between department managers”; they are also suitable in extracting the specific information required.

In the interviews, the perceptions of interviewees towards OA in general, and the readiness of OA policy implementation in their institute specifically, were explored. Five contextual factors informed by TORC and one factor proposed by the researcher were explored in the interviews: organisational policies, procedures and past experience, organisational structure, resources, culture and organisational tensions (added by the researcher) (see the literature review in Chapter 2). These factors are important for planning strategies to promote OA initiatives for future OA policy implementation across PAAET. The researcher used TORC (Weiner, 2009) to provide a realistic step that deals with the unique Kuwaiti concept and offers a direct guide and appropriate strategies that fit PAAET’s environment. The theory offered a means of merging the structural and psychological views of organisational readiness found in the study. It was used as a foundation of the study to identify organisational issues that affect the structure of readiness and change towards OA policy

implementation.

This section deals with the analysis of the views of the 16 interviewees regarding aspects of introducing OA to PAAET in terms of the current situation, the main problems and obstacles to be faced, and potential solutions for its future implementation (See Appendix 3). The following research objectives were addressed: “To explore the perception of Kuwaiti Higher Education institution / PAAET stakeholders towards OA” (Objective 2); and “To identify the factors that affect the readiness of OA policy implementation in Kuwaiti Higher Education institution / PAAET” (Objective 3).

5.1 Perceptions of open access

Knowing and understanding any concerns first is the key to how to deal with them afterwards; thus, it was important to gain an understanding of the perceptions of PAAET stakeholders towards OA, as well as recognising the benefits OA from the interviewees’ own perspectives.

Theme	Interview Questions
Perceptions of OA and the need for an open access policy in PAAET	<ol style="list-style-type: none"><li>1. Is PAAET familiar with the OA trend within its community?<li>2. In your opinion, what are the benefits of OA to the research community?<li>3. Is there a role for OA in PAAET?

Table 8: Interview questions “Perceptions of OA”

5.1.1 PAAET’s perception of open access

It was clear that the interviewees had little knowledge of OA or its role Respondents HM2 and HM3 commented:

There is very little awareness within the academic community of such trend as we currently have a database department “Libranet” to support our academic needs. ’ (Interview 2, 27/07/2011).

Enthusiasm for OA

Respondent HM1 (Interview 1) was very enthusiastic about OA and expressed positive views towards taking this matter into consideration in future plans for PAAET, commenting:

This is very interesting to have in our institution and should be taken into consideration for future plans (Interview 1, 27/07/2011).

We already have a similar system

However, there was a different point of view from HM4 (Interview 4) that revealed that there was no clear understanding about OA or an institutional repository:

We as a department are already practising something similar and we are archiving the studies and research of the faculty members as abstracts in our systems and it can be available to the public upon request (Interview 4, 09/08/2011).

In the above quotation, the respondent confuses OA attitude and “spirit”, in the sense that OA does not require publishing on request – the publications are supposed to be open to the world at large without any intervening barriers or obstacles from management. On the other hand, this respondent does support the notion that the individual is ready to share the information with others in principle, and that there is already infrastructure available for sharing studies and research publications for public use.

However, D1 (Interview 5), D2 (Interview 6), D3 (Interview 7) and D4 (Interview 8) had no idea at all about OA and showed no awareness of the topic or if there was any OA practice in their departments.

Improvement of information process

L1 (Interview 9), L2 (Interview 10) and L3 (Interview 11) viewed OA as an information process, understandable because of their background and the nature of their work. L4 (Interview 12) suggested that the need for an OA policy was based on experience and ways of accessing information. They all believed that an OA policy is needed to facilitate the retrieval of information by academic staff and librarians.

The responses to these questions suggest that the higher management are better informed and have some potential views of what OA could or could not bring to PAAET. Although lack of awareness amongst the majority of individuals interviewed seems to be a barrier at first sight, the fact that these individuals do not have negative perceptions of OA as a potentially new way of knowledge sharing in PAAET is itself a positive outcome from this question.

5.1.2 Open Access Benefits

When asked about the benefits of OA, interviewees had different views and opinions.

Gaining organisational recognition

HM1 and HM4 stated that the country will benefit from OA and it would improve international academic arrangements. HM2 (Interview 2) commented as follows:

... In my opinion it is a set standards in order to share research that helps in gaining recognition for both the individual and for the organisation. (Interview2, 27/07/2011).

The above quote highlights that individuals in higher management are not only concerned with the welfare of the country as a whole but also the recognition of individual researchers and the organisation they work in, in this case PAAET.

Development of skills for future students

However, interviewees D2 (Interview 6) and F1 (Interview 10) suggested that an OA would also help to develop the skills of students that join the institution. One of the reasons for this

understanding of the policy is that the use of technology is focused on students, facilitating the use of information among newcomers. The perception is that the younger generation of learners will develop skills and gain access to new technology through OA, and thus be able to engage with this new set of data more easily than individuals who have not had the training and who do not feel comfortable in the use of computers in their day-to-day research. The current culture is for individuals who want access to a specific publication relying on a librarian to provide the paper version; they do not expect to find the information themselves. This organisational culture will be a major challenge and the benefits of OA will be limited if academics and research staff continue with their tradition of relying on help to conduct their research.

Organising research funding

On the other hand, L2 (Interview 8) had a different point of view of the concept of OA among stakeholders in PAAET, mentioning that it would help organise research funding by PAAET according to a written policy. F4 (Interview 16) also mentioned that an OA policy would protect research funding in PAAET:

The benefits as far as I know, it is to organise new information and to protect PAAET's funded research (Interview 16, 06/08 2012).

This belief in the protection of research funding is confusing, and if anything highlights the lack of understanding of OA. The individual will certainly gain from getting recognition, and the institution will be recognised for funding a certain type of research but the reality for protection is somewhat limited.

Improvement of information management

According to L1, (Interview 7) one benefit of OA is to have standard procedures for organising information, again a comment due to this interviewee's professional background as a librarian. A similar view was held by L4 (Interview 12):

From my understanding, the benefit of OA is to help the library to manage research and information (Interview 12, 07/08/2012).

It is interesting that stakeholders identified different benefits according to their position within PAAET. Librarians are concerned with standardising information and introducing common rules and practices. On the other hand, management is concerned with external factors such as gaining external recognition and visibility for the work conducted in the institution. Overall, the benefits can be grouped into operational and strategic, but this still misses out some of the claims in the literature about the impact on the wider society and research community at large.

5.1.3 The role of Open Access or Open Access policy practice in PAAET

L2 (Interview 8) and L3 (Interview 9) pointed out that they had never seen any OA performance by any department in PAAET; therefore, they felt that senior management should encourage the implementation of an OA policy. L1 (Interview 7) also confirmed that OA played no role of any kind in PAAET's colleges or departments.

Feeling of insecurity

Interviewees F1, F2 and F3 expressed the view that OA is a form of publication, making them feel insecure about their research being openly available.

No role for OA

L1 (Interview 7) also confirmed that OA played no part in the performance of PAAET's colleges or departments. This again highlights the particular organisational structure, where higher management are expected to drive innovation forward and other departments are less likely to propose policies such as OA. As for any OA practices in PAAET, F1 commented:

I have no acknowledgement of open access practice in PAAET's colleges. There is no practice or role for open access that I can see ... In my opinion we have not recognised it yet (Interview 11, 29/07/2012).

There are a large number of research papers published by academic staff and available on major and famous databases which makes it accessible to the academic community without making it open access (Interview 13, 07/08/2012).

This statement, by F3, clearly shows that there is very little awareness of the concept of OA, with potential hostility towards the need for OA at PAAET. The reference to existing databases ignores the fact that they are closed proprietary systems, accessible only to those who have paid a subscription. The core principle of OA is that information is freely shared with anyone, and this principle is clearly not understood by this faculty interviewee.

Need for OA

Although the majority of interviewees felt that there is a need for an OA policy in HE, F2 (Interview 14) expressed the opinion that there is no need to introduce it in PAAET. Overall there were no significant differences in their opinions about awareness of OA, and opinions of the need for an OA policy were mainly positive and related to improving individual and organisational performance.

In my opinion, as an academic institution we need to have such a policy to but I don't think we really need it now... (Interview 14, 29/07/2012).

The interviews on PAAET's perception of OA uncovered little awareness by senior management of the trend to OA, or how they might promote OA initiatives through their policies. There is also no recognition of the importance of OA for PAAET's future sustainability or contribution to the academic community and wider society. As in the previous question, some of the academic staffs' views revealed that they did not know the difference between an OA institutional repository and a subscription database as illustrated by F4:

I think it's the same as the database that we use for searching studies and scientific articles? (Interview 16, 06/08/2012).

- **Contextual Factors and Sub-factors of the readiness of OA policy implementation**

5.2 Policies and procedures

This section aims to provide an insight into the current management, policy and government issues that support the implementation process.

Factor and Sub-factors	Interview Questions
<p>Policies and procedures:</p> <ul style="list-style-type: none"> • <i>Management encouragement for policy implementation.</i> • <i>Government influence.</i> • <i>Type of open access policy.</i> 	<p>4. In your opinion, how does senior management encourage policy development in order to implement an effective policy?</p> <p>5. In your opinion, is management open or paying attention to the suggestions of the academic staff and employees before implementing a policy?</p> <p>6. In your opinion, how will the government intervene on open access policy implementation in PAAET through their instructions?</p> <p>7. In your opinion, what type of Open Access policy will be appropriate for PAAET? A mandated policy or a voluntary policy? And why?</p>

Table 9: Interview Questions “Policies and procedures”

5.2.1 Management encouragement for policy implementation

Participants were interviewed regarding the role of management and their encouragement in policy implementation in the organisation. As mentioned in Chapter 3, top managers exercise topdown hierarchical control and thus have an important role in establishing guidelines to encourage the implementation of any policy within PAAET. In the light of this, the interviewees were asked “how does senior management encourage policy

development in order to implement an effective policy?” and “is management open or paying attention to the suggestions of the academic staff and employees before implementing a policy?”.

HM willingness to involve other staff in policy development

HM1 (Interview 1), HM2 (Interview 2), HM3 (Interview 3) and HM4 (Interview 4) confirmed that they were open to involving whoever is necessary from the field of expertise of the policy in question. On the other hand, L2 (Interview 9) and L4 (Interview 12) did not respond clearly to this issue, which in itself suggests that the views of higher management are not shared by librarians, who are not familiar with the potential opportunities available to them. However, D3 (Interview 7) and D4 (Interview 8) were certain that senior management support a policy according to the standards set by the need for the policy:

The support of the higher management is given according to the type of policy and policy standard needs which it is serving (Interview 8, 07/08/2011).

This reveals that senior managers consider their role in terms of policy implementation for improving PAAET’s performance. However, it was also made clear that there were no written strategies from top management regarding policy involvement by lower staff through the organisational hierarchy. The interviews also showed that the approaches to policy making in PAAET were neither clear nor systematic, with little management awareness of the possible impacts of policy implementation. It is also due to a lack of formal strategies that encourage and support this issue.

Lack of faculty engagement in change implementations

Different views were revealed by D1 (Interview 5) and D2 (Interview 6), who did not comment on this matter although they implied indirectly that they have no involvement with top management when it comes to the implementation of any policies implemented in PAAET. This supports the organisational culture where policies are usually implemented in isolation. Not surprisingly, given the responses to this issue, F2 (Interview 14) openly stated:

Unfortunately, the current leadership within PAAET, as well as the management does not encourage academic staff to be involved in policy implementation as there is no recognition to our activities by the top management and there is no support for holding meetings that would let us share our professional opinions (Interview 14, 29/07/2012).

The organisational culture has the potential for change, with a more engaged decision-making process, as the above comment demonstrates the willingness of faculty to engage in decision making. Opportunities for consultation with staff on new policy development are not available despite the statements made by one of the higher management interviewees, reported above. The current study is potentially the first time that this faculty member was consulted about a potential policy change. The fact that such a frank response is given highlights a willingness to speak out against the current organisational culture and make clear, constructive suggestions to senior management. Simple management consultation meetings and staff engagement in strategic policy and decision making could be improved by involving more individuals.

Lack of competition within PAAET

F3 (Interview 15) criticised the few measures made by top management to encourage and compare research efforts between departments; the number of researchers in each department are posted on PAAET's official website. This motivates some competition between researchers in the institution:

There is no direct involvement by faculty in policy implementation as the senior management is not aware of the members that can contribute positively and gain from their experience... they can start by posting the faculty's contributions on PAAET's website, this will make them aware of whom can contribute positively by brainstorming ideas if required' (Interview 15, 02/08/2012).

Again, as in the previous comment, the criticisms offered are constructive and allow faculty to show their interest in developing PAAET as an organisation with an interest in participating in the development of the research culture.

General policy development and implementation issues

Although most interviewees felt that there is a need to be involved in policy implementation, a few expressed the opinion that there is such an involvement by the necessary professionals in PAAET. It was also revealed from some of the interviews that involving academic staff, particularly in decision-making processes about policy, will help them feel part of the organisation; they can then be motivated to accept and practise the policies implemented by the institution. However, it appears that there is a lack of interaction between top management and academic staff on how to share their views and experiences.

Although this study is primarily concerned with OA policy the way in which general consultations are made highlights the challenges posed by organisational culture when it comes to policy decision making generally.

5.2.2 Government Influence

The government can play an important role as a facilitator and a supporter of the OA movement. This can be achieved by establishing a budget for promoting OA policy within academic institutions through appropriate strategies, and by promoting an OA culture that encourages the OA trend. It is worth noting that detailed economic factors were not raised as PAAET is funded and supported by the Ministry of Finance of the Kuwaiti Government. The question was focused on whether there will be any government intervention in the organisation's policy and decision making when implementing an OA policy. Fourteen interviewees declined to answer this question. Only one of the two who did answer offered comments relevant to government influence on policy implementation in PAAET, HM1 (Interview 1):

There is no direct influence by the government as we are an academic institution and have no political activities. The only influence will be the financial support that is provided by the Ministry of Finance (Interview 1, 27/07/2011)

It is clear that there is no direct influence by the government as PAAET is an academic institution and has no political activity. The only influence is the financial support provided by the Ministry of Finance. PAAET is a government institution and the state thus largely imposes the main strategies and policies of PAAET, which is a possible barrier to the implementation of an OA policy and also affects readiness for its implementation. This can be seen, for example, in regard to policy funding. All interviewees focused and agreed on the financial barrier and the lack of professionals who should manage such policy. The qualitative analysis revealed that there are other factors that may obstruct the readiness for future OA policy implementation in PAAET.

5.2.3 Type of open access policy

In this section the type of policy (mandated or voluntary) that is preferred by the organisations' academic staff is uncovered, what is the appropriate type to practice as an organisation, and the appropriate colleges (PAAET community) that can apply and practise an OA policy. With regard to the types of OA policy that can be used, the opinions of HM2 revealed that a mandated policy is appropriate for PAAET and expressed the idea that a voluntary OA policy would have no impact on faculty members:

It will be difficult to control and demand from faculty members to deposit their studies in the database as they already have the choice to do so or not. On the other hand, a mandated policy in PAAET will be more exposed to the national and international academic society (Interview 2, 27/07/2011).

One of the common views from HM3 (Interview 3), who had responsibility for regulations and policies, was that mandated policies are the most common type of policy used in practice in PAAET. HM4 (Interview 4) had a different point of view on this matter and commented:

We as a department are already using a mandated policy, as all research that is conducted by faculty members should be submitted to the research department as a hard and soft copy (Interview 4, 09/08/2011).

Another interviewee argued that decisions on the type of policy should strictly be made by

professionals; HM1 (Interview 1) clarified his comment as follows:

Such decisions should be made by professionals in the field and according to the flexibility of our research community (Interview 1, 27/07/2011).

Four interviewees L1 (Interview 9), L2 (Interview 10), L3 (Interview 11) and L? (Interview 12) believed that a mandated policy is more functional and appropriate and that a voluntary policy would not work within PAAET's community and organisational culture. On the other hand, D1 (Interview 5) and D2 (Interview 6) had a different comment:

It will be very difficult to force faculty to a mandated policy and that is due to the lack of time and as for most scientific publications copyright issues must be taken into consideration" (Interview 5, 12/07/2010; Interview 6, 14/07/2011).

On the other hand, F1 (Interview 13), F2 (Interview 14) and F3 (Interview 15) had different points of view, and they all suggested that a voluntary policy is the best option for the academic staff in terms of OA policy and practice in PAAET. They emphasised that problems with faculty members have other dimensions, such as having the choice to deposit their publications, and copyright issues. Another interviewee, F4 (Interview 16), mentioned that deficiencies in the electronic system are considered a problem in practising a mandated policy.

...A voluntary open access policy is the best and most appropriate type of policy for us to practice as an institution. It the best option that can be applied for faculty members ... We also have to overcome the barrier of the use of electronic systems among faculty members (Interview 16, 29/07/2012).

Some interviewees suggested that a voluntary policy is appropriate for PAAET due to their interests and profession. On the other hand, most signified that a voluntary OA policy is a weak option for PAAET, as it gives the faculty a choice; nevertheless, it will be difficult to expect faculty members to deposit their studies in the repository without specific regulations. Therefore, a mandated OA policy is more suitable for PAAET because, firstly, it grants

funds to researchers who would be obliged to deposit in the IR. Secondly, with a voluntary OA policy it does not demand from the researchers to submit or deposit a copy in the IR. Thirdly, the Ministry of Finance is unlikely to fund any type of system implementation that does not conform to the organisation’s policy.

5.3 Past Experience

Interviewees were asked about the issues that could affect policy practice in general and the needs to be considered before policy implementation. They mentioned factors that might also influence the readiness for OA policy practice after implementation.

Theme	Interview Questions
<p>Past experience :</p> <ul style="list-style-type: none"> • <i>Resisting Change</i> • <i>Language</i> • <i>IT Competency</i> 	<p>8. In your opinion, what are the main issues that affect policy practice in general that need to be considered?</p>

Table 10: Interview Question “Past experience”

5.3.1 Resisting change

Regarding the current situation in PAAET, HM1 (Interview 1), HM2 (Interview 2) and HM4 (Interview 4) noted that one of the issues of policy practice is resisting new changes that will be added to their practices. Nevertheless, HM3 (Interview 3) pointed out that the period of time taken to accept a policy reflects the resistance to change of academic members in the institution.

The resistance to practising a new policy by some of the academic community is a very common reaction in PAAET; nevertheless, convincing them is also another long process” (Interview 3, 07/08/2011).

Interviewees L1 (Interview 9) and L3 (Interview 11) declared that promoting and spreading awareness across PAAET before implementing any policy is an important issue which should be taken into consideration; in other words, change causes tension and becomes difficult for the academic community to accept easily without any sort of advocacy. L4 (Interview 12) commented that some academic members within the institution were very resistant towards using current systems or practising certain policies, and that the organisational culture needs to change, with academic members becoming more accepting of new trends. One academic leader argued that:

Resistance to new tendencies is a normal reaction from academic members, as an evidence to that, many academic staff members are not willing to use current systems we have or practice certain policies easily. Unfortunately accepting new trends with an open mind is not easy (interview 12,07/08/2012)

F2 (Interview 14) believed that the putting into practice of new policies is not constantly monitored by professionals, and therefore does not serve the purpose of its implementation:

Lack of promotion of new policies that the higher management wants the academic staff to practise and it is not monitored therefore not taken seriously... (Interview14, 29/07/2011).

The longevity and sustainability of any policy are reliant on the measures which help to continuously re-enforce policy implementation and embedding in the organisational culture. As we can see from the above quotation, the issue of “monitoring” seems to be the only way to make a policy prominent – there were no participants who felt that positive recognition is an option, for example, an option for celebrating the best employee of the month, or with the highest number of publication citations, being recognised in a regular communication to staff, etc.

5.3.2 Language

Remarkably, competence in the English language was an issue that emerged from the interviews with L1 (Interview 9) and L4 (Interview 12). The need to use English was emphasised and related to the use of new systems that require competence in the language.

For example...some academic staff do not conduct their own database searching because of the language; and they ask librarians to assist them to do so” (Interview 9, 11/08/2011; Interview 12, 07/08/2012).

On the other hand, F1, F3 and F4 (Interview 13, 15, 16) showed many concerns about a policy that supports a system in English and accessing English language materials. F3 stated that:

There is a large number of academic staff who lack competence in English. This problem has restricted their use of new systems especially those in English. It has also constrained their use of English language materials' (Interview 15, 02/08/2012).

However, this was not seen as a difficulty by senior managers HM1, HM2, HM3, HM4 (Interviews 1, 2, 3, 4) or middle management D1, D2, D3, D4 (Interview 5, 6, 7, 8). Language was not mentioned in their interviews as an impediment to policy practice. This suggests that they were graduates from foreign countries who did not see language as a difficulty, relying on their personal knowledge instead of needing to ask the faculty who would be affected by the potential change. This reveals that a lack of capability in English can affect the readiness for OA policy implementation and can also be a limitation in OA practice policy.

5.3.3 IT Competence

Most interviewees emphasised the lack of continuous training for academic staff on how to use the associated programs implemented in the the current systems in the institution. F1 (Interview 13) made the point that technology and technological “know-how” are not yet common among academic staff and this may be an obstacle to the practice of OA policy in

PAAET. L1 (Interview 9) revealed that lack of IT skills is a barrier in PAAET and stated that:

There is a lot of demand for the use of databases in PAAET, but unfortunately a large number of members of faculty are not willing to do any searching on their own on the databases, and that is due to the lack of IT skills among some and the lack of time among others. Therefore, they demand that we do the searching for them... the lack of an electronic culture among some faculty in PAAET can be a major barrier to practising a new policy... (Interview 9, 11/08/2011).

L2 (Interview 10) also acknowledged that the academic community had a lack of awareness of the OA trend in PAAET and the use of its components, which will be a barrier in practising OA policy:

...Facing the lack of awareness of open access benefits and the uses of the IR among the academic community will make it difficult to practise an open access policy even after its implementation. (Interview10, 14/08/2011).

5.4 Organisational resources

In this section, technical and professional issues are addressed that can affect the readiness for implementation of an OA policy in PAAET; it includes IT skills and IT maintenance.

Theme	Interview Questions
<p>Organisational resources:</p> <ul style="list-style-type: none"> • <i>Technical Resources</i> * <i>IT infrastructure</i> * <i>IT support</i> • <i>Information Professionals</i> 	<p>9. In your opinion, in order to maintain an open access Institutional Repository (system) in PAAET, how is the foundation of IT infrastructure (resources) and the level of IT support provided?</p> <p>10. In your opinion, what is the level of support provided by information professionals (librarians)?</p>

Table 11: Interview Questions “Organisational resources”

5.4.1 Technical Resources

The technical infrastructure and support were explored as a basic foundation for the implementation of an IR. Currently, as HM1 (Interview 1) noted, there are large numbers of computers in PAAET. These are distributed for academic staff to facilitate the use of technology through the Internet and Intranet and they are supported by full maintenance.

However, the interviews conducted with D1 (Interview 5), D2 (Interview 6) and D4 (Interview 8) revealed that there were general technological problems and it was clear that these interviewees were not happy with their current IT support. D3 (Interview 7) stated that:

There are a lot of technical problems that need to be faced before the decision to shift to a new system. The transition without solving the existing problems will transfer these problems and obstacles to the new system. (Interview 7, 30/07/2012)

HM2 (Interview 2), HM3 (Interview 3) and HM4 (Interview 4) confirmed that there was regular technical maintenance. Nevertheless, F2 (Interview 14) and F3 (Interview 15) expressed another opinion, that some academic staff did not know how to use the Intranet; as for the Internet, it was not being used effectively due to technical problems.

A point was made by F1 (Interview 13) that insufficient training programmes are offered by the IT department. Continuous training and support for academic staff on how to use new systems and associated programmes is low.

L1 (Interview 9) and L4 (Interview 12) pointed out that they face slow service from the IT department due to insufficient staff. L2 (Interview 10) commented that the library is struggling with proper IT support in PAAET and the use of its components, stating:

...We as a library need a lot of IT support and in our current situation we don't get enough IT training and service due to the large number of libraries that are in PAAET (Interview 10, 14/08/2011).

5.4.2 Information Professionals

Furthermore, HM3 (Interview 3) highlighted the experience and expertise of professionals needed to meet the demands of the academic community in PAAET :

We have very few professionals who are experts in both IT and library science and this is one of the problems that we face as a deanship to fulfil the needs of the institution as a whole and therefore, it is somehow difficult for us to keep up with these new trends in the world of information... (Interview 3, 07/08/2011).

From L1 (Interview 9) and L4's (Interview 12) point of view, their connection with faculty members is not as strong as before, because the Internet has become the key element in answering most of the faculty members' needs in most of their work. However, they failed to

present a full picture of their potential role in advocating an OA policy among the faculty members.

Lack of professional skills in both IT and library science among library staff is an obstacle that must be overcome by the Dean of Libraries if the needs of the institution as a whole are to be met. Faculty members have indicated that librarians within PAAET have failed to promote the use of technology among academic staff. This emphasises the lack of professional development that may have an affect on readiness for implementing an OA policy in PAAET.

D1 (Interview 5) and D2 (Interview 6) expressed the opinion that they should be kept informed by professionals about the OA trend and encouraged in such initiatives. In this respect, D4 (Interview 8) also said:

The academic staff should be the first to be informed about OA trend so they can request to implement an OA policy, because professionals are the ones who are responsible to pass on the message of such initiatives to us in order to develop and improve our performance. (Interview 8, 07/08/2012)

5.5 Organisational structure

This section examines the organisational structure that will affect readiness for the implementation of an OA policy within PAAET.

Theme	Interview Questions
Organisational Structure	11. In your opinion, which colleges in PAAET will be able to practise an open access policy in the future? And why?

Table 12: Interview Questions “Organisational structure”

5.5.1 Segregation

In the interviews with HM 1, 2, 3 and 4 (Interviews 1,2,3,4) they all stated that gender segregation is a state regulation, but asserted that they thought that it could be a major barrier to implementation of new policies especially to those working with a new system; some staff would not interact with members of the opposite sex for social reasons and national culture. HM3 (Interview 3) believed that this was a good choice as it confirmed Kuwaiti tradition, culture and religious beliefs.

As the findings indicate, there are certain issues that concern senior managers in PAAET in terms of looking for alternatives to segregation when implementing OA initiatives. L2 (Interview 10) and L3 (Interview 11) revealed that there are difficulties in terms of movement to other colleges located in different areas.

I think that the different locations of our buildings for male and female colleges would slow the process of the OA policy implementation (Interview 11, 17/08/2011).

The findings concerning segregation issues also indicate that the different locations of colleges and departments may influence OA practices and processes in PAAET. According to D3 (Interview 7), conducting seminars and training sessions can be made difficult by the segregation in PAAET:

Conducting seminars and sessions to give the academic community a clear vision of the policy and how it could influence positively on the institution as whole is great!!... But because of the segregation many cultural issues should be taken into consideration first; not all academics are assured to attend, therefore, it is not easy in PAAET to get all academic staff to participate and attend these sessions (Interview 7, 30/07/2012).

The issue concerns which members of society can practise an OA policy within PAAET and who will contribute to it if applied to. It was made clear by HM1 (Interview 1) that an OA policy cannot be applied to all colleges and institutions in PAAET due to the different levels

of academic staff; some are not research active, so the overall hierarchy of PAAET should be re-considered; he expressed the following opinion:

PAAET can not apply this kind of policy to all of the colleges and institutes as there are different academic levels among its staff members; therefore, the applied education should be separated from the training and this kind of system can be practised only by the Applied Education colleges (Interview 1, 27/07/2011).

Remarkably, HM4 (Interview 4) disclosed an insightful point of view about this matter:

Implementing an open access policy will be challenging to the training institutes in PAAET as they are not research oriented, therefore, PAAET's organisational hierarchy should be overlooked and consider separating the applied education from the training... This type of policy can be practised only by the Applied Education colleges as they are more research active (Interview 4, 09/08/2011).

Another point was highlighted by HM2 (Interview 2) and HM3 (Interview 3) who specified that an OA policy would be more easily applied in science-based colleges and social studies as most of their faculty members are research active:

It would be easier practised by the scientific colleges Such as the College of Nursing and Health Sciences, and the College of Basic Education...they have more research activity than other colleges. (Interviews 2, 27/07/2010; Interview 3, 07/08/2011).

All colleges in PAAET should practise OA if it is applied, as was revealed very clearly by L1 (Interview 9), L2 (Interview 10) and L4 (Interviews 12). As for F1 (Interview 13), F2 (Interview 14), F3 (Interview 15) and F4 (Interview 16), they did not answer as they support the application of a voluntary OA policy and the choice of practice should be open for faculty members.

The interviews indicate that an OA policy cannot be applied to all colleges and institutes in PAAET, due to the different levels of academic qualifications among academic faculty

members (not all faculty members are research active). Only the five applied education colleges in PAAET can practise this kind of policy.

5.6 Institutional Culture

The influence of institutional culture is explored in relation to readiness to implement an OA policy; emerging factors are bureaucracy and favoritism “wasta”.

Theme	Interview Questions
<p>Organisational culture</p> <ul style="list-style-type: none"> • <i>Bureaucracy</i> • Favouritism “Wasta” 	<p>12. In your opinion, how does the institutional culture influence the development/implementation of a policy?</p> <p>13. In your opinion, what are the cultural challenges that could face the institution when implementing an Open Access Policy?</p>

Table 13: Interview Questions “Organisational Culture”

5.6.1 Bureaucracy

The next issue investigated is the influence of institutional culture on the development and implementation of a policy. It was made clear by D2 (Interview 6) that bureaucracy is very common in PAAET, slowing down development and policy implementation and putting many obstacles in the way of improvement. Another interviewee, L2 (Interview 10), commented:

PAAET is like any academic institution in Kuwait, we are controlled by bureaucracy and any development takes double the time due to this... (Interview 10, 14/08/2011).

L3 (Interview 11) thought that the existence of bureaucracy in the institution made

developments and activities very difficult and would affect policy implementation.

...Our developments depend on old management implications, therefore, I wouldn't be surprised if it could slow down a policy implementation" (Interview 11, 29/07/2012).

Interviewees F2 and F3 (Interviews 14, 15) indicated that, despite the existence of some rules and regulations for developing and implementing a policy, nothing actually happens fast.

5.6.2 Favouritism or *Wasta*

D1 and D2 (Interview 5, 6) specified that most developments and policy implementations depend on *wasta* that might speed the implementation of a policy. D4 (Interview 8) stated:

...it all depends on who is in charge and his/her position in order to see fast developments and smooth policy implementation; as all these depend on wasta, the relation with senior management in PAAET (Interview 8, 07/08/2012).

L1 (Interview 9) indicated that the responsibility for developing or implementing a policy is allocated according to the personal and social relationships with top management.

It is clear from the above that there is indeed a lack of standards specified for the development and implementation of a policy; any standards that do exist are neither generally applied nor respected, as a result of the current Kuwaiti organisational culture in HE, in which personal relationships are allowed to intervene in matters of policy implementation.

5.7 Organisational Tensions

Theme	Interview Questions
<p>Organisational Tensions.</p> <ul style="list-style-type: none"> • <i>Interdepartmental Collaboration</i> • <i>Budget and funding</i> 	<p>14. In your opinion, what are the tensions that could face the institution when implementing an Open Access Policy?</p>

Table 14: Interview Questions “Organisational Tensions”

5.7.1 Interdepartmental Collaboration

The issue of collaboration between department managers in PAAET was raised in terms of who would take over the responsibility for OA policy implementation proceedings and initiatives; this was identified as a problem in the majority of interviews. There is no clear vision of leadership, so who has the rightful authority to address and set the standards needed for implementing an OA policy in PAAET is in doubt.

HM2 (Interview 2) and HM4 (Interview 4) commented on and highlighted this point:

As for archiving the outcomes of faculty members this is within the authority of the research department but in general there was some discussion that it should be handed over to the deanship of libraries (Interview 2, 27/07/2011).

As a department we are already archiving all the researches that are funded by PAAET online. And we have them on our departments web page as abstracts, if anyone requires the study he/she should request it from us and we are more than happy to provide it to them. (Interview 4, 09/08/2011).

This is mainly due to the lack of the higher management’s awareness of the OA trend and OA benefits in general. It also goes back to inactive communication and collaboration between the departments responsible for supporting the implementation of an OA policy.

Furthermore, management's failure to spread awareness among the academic staff was another issue raised by D1 (Interview 5). This may also affect the readiness of OA policy implementation, as lack of awareness is a major barrier.

Interviewees HM1 (Interview 1), HM2 (Interview 2) and HM3 (Interview3) pointed to the lack of cooperation among the directors of departments as causing tension and slowing down projects, especially when it comes to the leadership of new projects. As HM4 (Interview 4) commented:

Lack of cooperation between the directors of departments... some directors refuse to hand over tasks or devolve decision making to a more appropriate department for fear of losing recognition by PAAET's top management...this is considered a major tension in our institution (Interview 4, 09/08/2011).

It seems clear that the top management's interaction with departments does not encourage collaboration and communication between departments. Also, there are concerns about top management setting priorities that should be made in the best interest of the institution. For example, the line of demarcation in setting standards and priorities is not clear between the Department of Research and the Deanship of Libraries, as to which should receive faculty members' research whose is the task of meta-data entry in PAAET's system to enable public access.

5.7.2 Budget and funding

Another issue raised by most interviewees was budgets. HM4 (Interview 4) insisted that funding is a critical issue due to annual cuts in PAAET's budget by the Ministry of Finance. L1 (Interview 9) and L2 (Interview 10) mentioned that the main tension is related to convincing PAAET's financial department about the importance of the policy that PAAET needs to implement in order to demand more funds. Not surprisingly, these demands to raise PAAET's annual budget go through bureaucratic means of communication and many delays before approval (or not) by the Ministry of Finance.

Different interviewees provided different responses to this issue, highlighting the fact that the implementation of a policy was not usually easy, would be subject to delay; some agreed that any suggestions requiring a financial commitment would not be funded readily or even considered at all.

5.8 Overcoming Challenges

Participants' Views	Interview Questions
Overcoming Challenges	15. How do you think these challenges can be overcome?

Table 15: Interview Questions “Overcoming Challenges”

There are institutional challenges that need to be addressed when implementing an OA policy, so it was necessary to explore the interviewees' opinions on how to overcome them. HM1 (Interview 1) commented:

Most importantly is that the overall institutional hierarchy should change by separating the applied education from the training in PAAET (Interview 1, 27/07/2011).

Another challenge was the lack of seminars and training sessions according to HM3 (Interview 3), HM4 (Interview 4) and HM2 (Interview 2):

Conducting seminars and sessions to give the academic community a clear vision of the policy and how it could influence positively the institution as whole. To get all academic staff to participate and attend these sessions is a difficult task in PAAET (Interview 2, 27/07/2011).

Training sessions should be a priority before implementing any policy whether involving individual or group practice in PAAET; this was noted by D1 (Interview 5), D2 (Interview 6), L1 (Interview 9), L2 (Interview 10), L3 (Interview 11) and F1 (Interview 13).

This reveals that very few seminars, workshops and training sessions are performed in PAAET to raise awareness and promote a clear vision of new information trends in general; and nothing is promoted on OA, policy initiatives or how it could influence positively the institution as a whole. The higher management and library can play an important role as facilitators and promoters of OA. This can be achieved by establishing a policy for promoting OA within the organisation through appropriate strategies and by promoting a culture that encourages OA.

5.9 Quantitative Analysis

To enhance and complement the findings from the interview questions, the researcher triangulated the data through the most popular data collection method, a questionnaire. This section presents an analysis of the questionnaire responses gathered at PAAET between July and August 2011. The results presented were generated using Excel in Microsoft Office 2011. A total of 352 questionnaires were distributed to academic staff in the five PAAET colleges, and 154 respondents completed them, a response rate of 43.75%. The quantitative analysis of the questionnaire presents a description of the various factors regarding OA and OA policy. It is worth noting that the results were merged (Agree with Strongly agree) and (Disagree with Strongly disagree); due to the cultural understanding to these terms as there is no significant difference between them.

First, brief information is provided on the background of the academic staff who participated in this questionnaire (described in detail in Chapter 4). The work location of academic staff was sought in the first part of the questionnaire. The questionnaire covered academic staff in PAAET's five main colleges, 19 libraries and two administrative departments. 31 out of 154 respondents were from the **libraries (20.1%)** while the smallest group, 9 out of 154, was from the **Research Department (5.8)** 22 out of 154 were from the **College of Basic Education (14.3%)**, the largest college in PAAET, while the smallest college group, 11 out of 154, was from the **College of Nursing (7.1%)**, which is relatively newly established

compared to other PAEET colleges. All the faculty members from PAAET's five colleges that participated in this questionnaire were research active. The overall **response rate was 43.75%** (154 out of 352) respondents.

5.9.1 Perceptions of OA and the need for an OA policy in PAAET

The researcher considers the main key to dealing with an issue is understanding any concerns first, thus gaining an understanding on the perceptions of PAAET stakeholders towards OA, as well as understanding the benefits of an OA policy. This information helped the researcher to develop a suitable strategy for a more efficient and effective OA culture appropriate to PAAET.

OA Awareness

Academic staff were asked whether they had ever heard of the concept of OA and they did not show a strong indication that they had done so (see Chart 1: OA Awareness). 37% responded 'Yes' and **39% responded 'No'**, while 24% were 'Not sure' about the OA concept. As for acknowledging whether OA is important, 10% had a negative attitude (strongly disagreed or disagreed) and 28% were neutral. Although **62% of the sample strongly agreed or agreed that OA is important**; academic staff had a different response towards the statement "*My institution is aware of Open Access*"; (62 out of 154) **40% were neutral** and (44 and 13 out 154) 37% had negative attitudes towards the institution's awareness of OA, leaving only (3 and 32 out of 154) 23% who strongly agreed or agreed that PAAET is aware of OA.

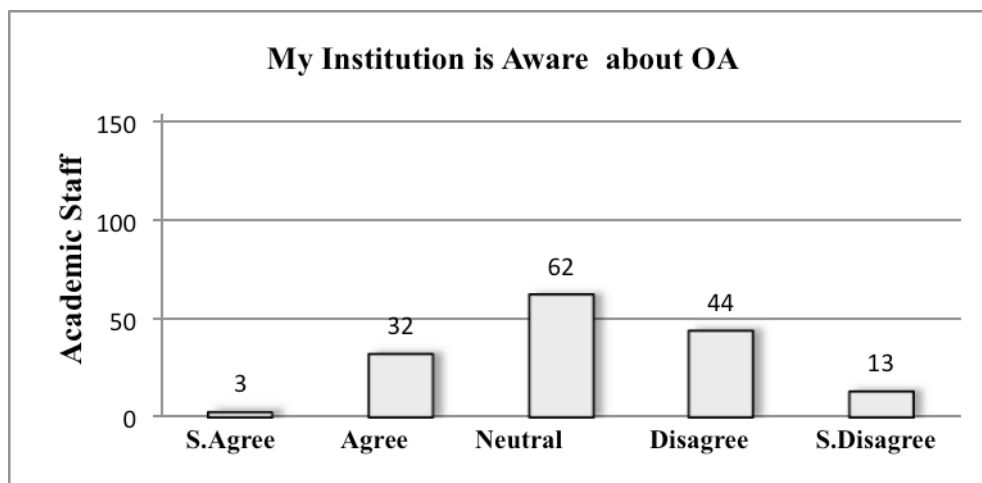


Chart 1: OA Awareness

Benefits of OA

Academic staff showed positive responses “*Open Access will have an impact on my role in my institution*” as **(20 and 69 out of 154) 58% by agreeing or strongly agreeing** with the statement while only (13 and 5 out of 154) 11% disagreed or strongly disagreed and (47 out of 154) 31% were neutral. As for Open Access increases visibility of research impact about three quarters’ of the respondents, (35 and 67) a total of 102 out of 154 **(66%), supported this statement** compared with (11 and 1 out of 154) 8% who strongly disagreed or disagreed. Furthermore, respondents were asked to express their opinions on whether “*Open Access can help increase improvement of a researcher’s career*”. It was found that there was no immense differences found in the responses as (18 and 35 out of 154) **35% who agreed or strongly agreed** with this statement, while (33 and 17 out of 154) 32 % disagreed or strongly disagreed and (51 out of 154) 33% were neutral.

On the Regarding their views towards the statement “*Open access will not help keep track of research active members' output in my institute*”, a big portion of the respondents (57 and 19 out of 154) **49% disagreed or strongly disagreed** with the statement, while (6 and 27 out of 154) 22% agreed or strongly agreed with the statement; (45 out of 154) 29% were neutral. Further analysis showed that (23 and 61 out of 154) **55% academic staff that agreed or strongly agreed** with the statement: “*Open Access can increase the motivation for research active members to publish*”. Furthermore (8 and 4 out of 154) 7% who disagreed or strongly

disagreed. 38% (58 out of 154) were neutral.

Academic staff showed differences in their perceptions towards exploring the influence of OA towards the increase of citation where (56 and 25 out 154) **52% disagreed and strongly disagreed** with “*Open Access publishing does not influence the increase of citations*” but (5 and 28 out 154) 22% agreed and strongly agreed and (40 out 154) 26% remained neutral. When the respondents were asked “*Open access publishing does help avoid duplication in research efforts*” strangely **48%** (59 and 16 out 154) **of academic staff disagreed or strongly disagreed** and 45 (29%) were neutral. These responses indicate that only 23% (6 and 28 out of 154) agreed or strongly agreed are aware about the basic concepts of OA.

Academic staffs were asked to indicate whether “*Open Access policy does not encourage research active members to deposit their research in an Open Access institutional Repository*” (28 and 63 out of 154) 59% agreed and strongly agreed that an Open Access policy does not encourage research active members to deposit their research in an Open Access institutional Repository. While 4 and 3 (5%) disagreed and strongly disagreed upon this statement. 56 (**36%**) were neutral.

5.9.2 Policies and procedures

This section aims to provide an insight into the current issues that could not be explored clearly through interviews in regards to the academic staffs’ views towards OA policy implementation in PAAET and its strategies.

Research Output

Furthermore, these results indicate that the majorities do not see OA can help in institutional collaboration. Responses when asked whether “*An Open access policy gains the institution a better picture of research outputs*” The majority of academic staff, 28 and 63 out 154 (as highlighted in Chart 2) the total responses **59% agreed or strongly agreed** that the institution could gain a better picture of research outputs by implementing Open access policy. Only 5% (4 and 3 out of 154) strongly disagreed or disagreed while (56) 36% were neutral.

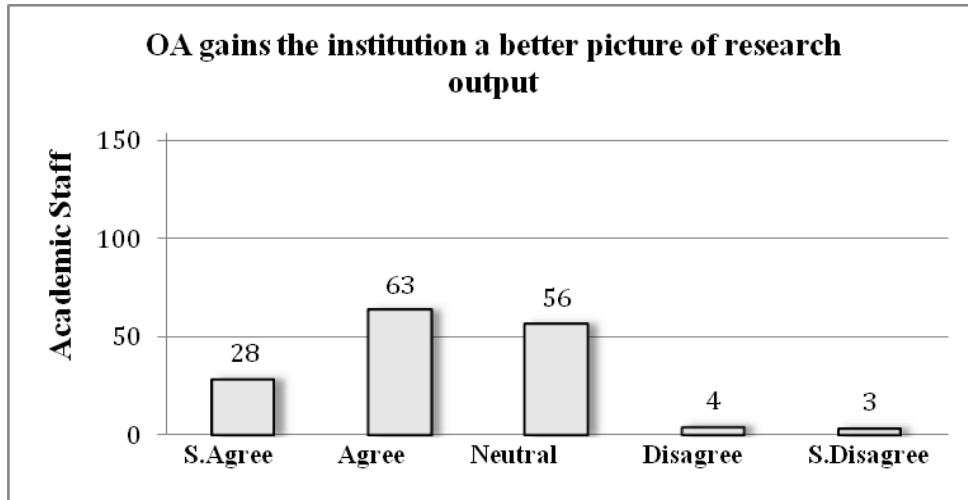


Chart 2: Policies and procedures (Research Output)

Institution Collaboration

Results revealed that some academic staff viewed the institution’s collaboration with others through OA will not be difficult as **41% of the academic staff (41 and 22 out of 154) disagreed or strongly disagreed** with this statement with the statement: *“It will be difficult for my institution to collaborate with other institutions through Open Access”* (See Chart 3) compared with the (47 out of 154) 30% were neutral and (15 and 29 out of 154) 29% of the academic staff agreed or strongly agreed in their views concerning this issue.

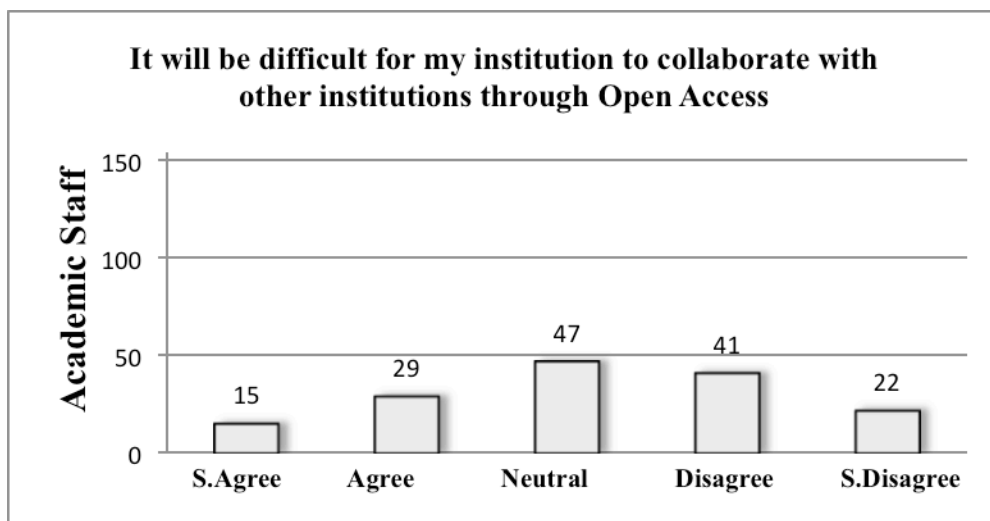


Chart 3: Policies and procedures (Institution Collaboration)

Government Influence

The governmental influence is an important environmental factor and when the academic staff were asked about government influence by this statement: “*The government has no influence on open access policy practice through their instructions*” no major differences shown in academic staffs’ responses (as shown in Chart 4), (17 and 36 out of 154) **34%, agreed or strongly agreed** compared with only (41 and 8 out of 154) 32% who disagreed or strongly disagreed. (52 out of 154) **34% were neutral**.

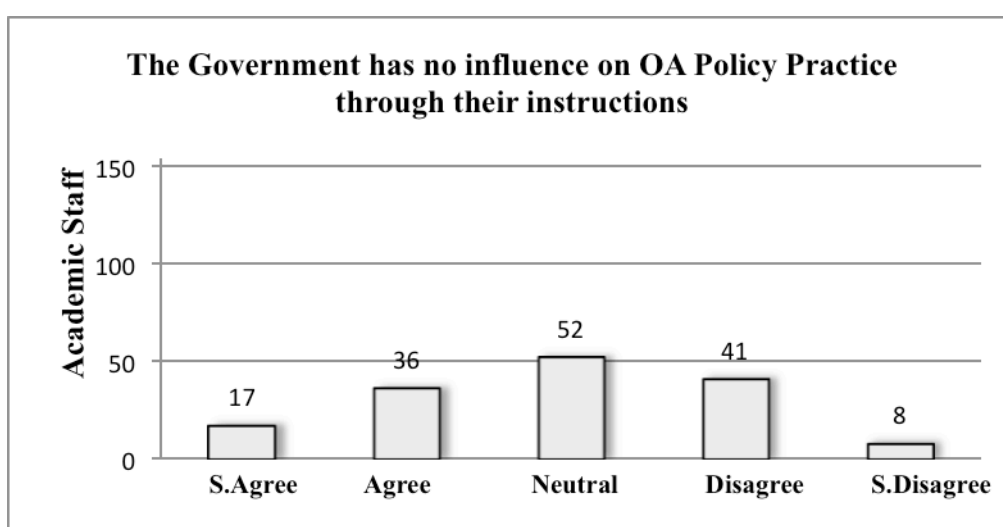


Chart 4: Policies and procedures (Government Influence)

Mandated Policy

The type of policy that is preferred by PAAET’s academic staff is explored. Therefore, respondents were asked whether a mandated open access policy should not be practiced in PAAET, Unexpectedly (56%) 86 out of 154 were neutral, while 12 and 49 out of 154 (40%) of the total responses agreed or strongly agreed that a mandated open access policy should be mandated (See Chart 5). Only (4%) 6 and 1 out 154 of the responses that disagreed or strongly disagreed.

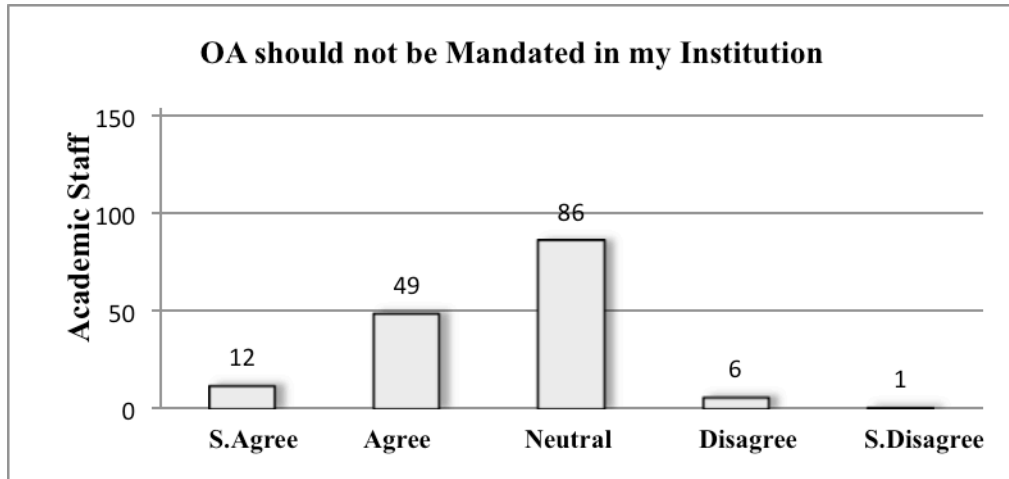


Chart 5: Policies and procedures (Mandated Policy)

Voluntary Policy

Further analysis showed that 20 and 59 out of 154 (**51%**) **academic staff that agreed or strongly agreed** with the statement: *“A voluntary Open access policy is appropriate for my institution”*. On the other hand, 63 (41%) responded as neutral and the least response was (8%) 11 and 1 out of 154 who disagreed or strongly disagreed (See Chart 6).

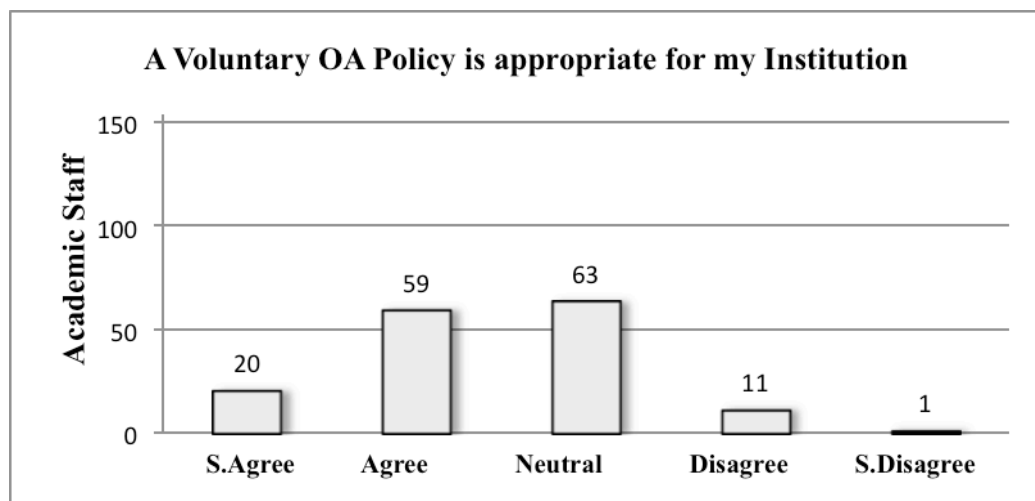


Chart 6: Policies and procedures (Voluntary Policy)

Self-archiving

Academic staff responded to self-archiving according to their IT skills and backgrounds by responding to the statement “*Self-archiving in the Institutional Repository will be easy for researchers in PAAET*” and surprisingly 28 and 51 out 154 (**51%**) **agreed or strongly agreed** with that statement (as illustrated in Chart 7) and 13 and 5 out of 154 (12%) disagreed or strongly disagreed, while 57 out of 154 (37%) remained neutral.

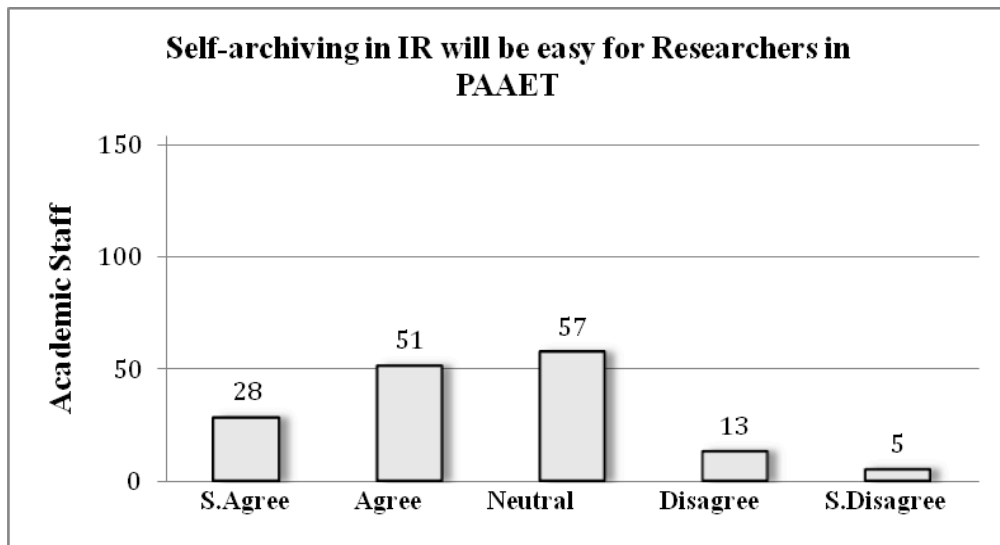


Chart 7: Policies and procedures (Self-archiving)

Library Agreement

On the other hand, (37%) 46 and 12 out of 154 respondents **disagreed or strongly disagreed** with the statement: “*An agreement should be made between the researcher and the library to grant the institution a permission to make his or her scholarly articles available in the IR and to exercise the copyright for those articles*” and 52 (34%) were neutral compared with 3 and 41 out of 154 (29%) who agreed or strongly agreed that the library to act on his/her behalf (as shown in Chart 8).

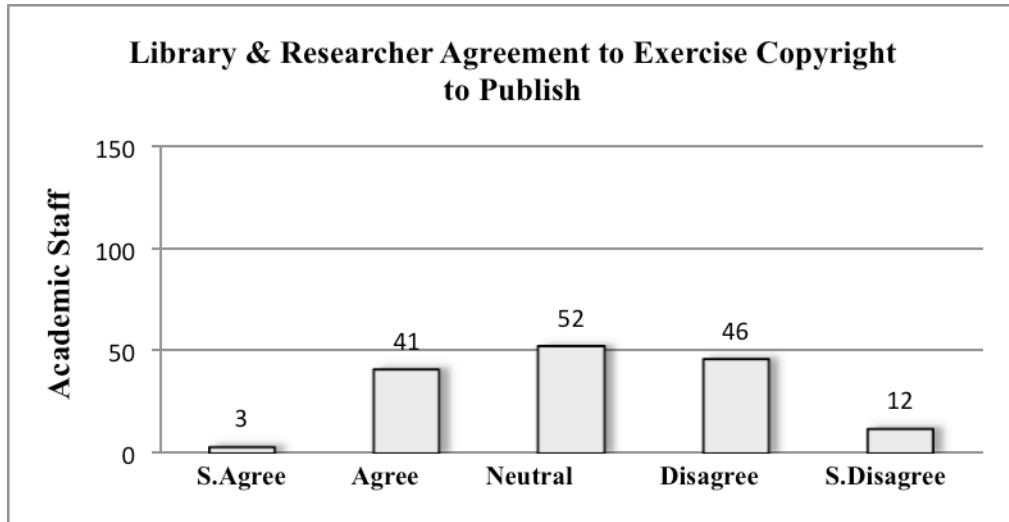


Chart 8: Policies and procedures (Library Agreement)

Copyright Concerns

In regards to explore the type of policy copyright issues should be uncovered and should be revealed. Therefore, 42 and 10 out of 154 (34%) disagreed or strongly disagreed to the statement: *“There will not be copyright issues with publishers if peer-reviewed articles are deposited in PAAET’s institutional repository”*, while (28%) 13 and 30 out of 154 agreed or strongly agreed and **59 out 154 (38%) were neutral** (See Chart 9).

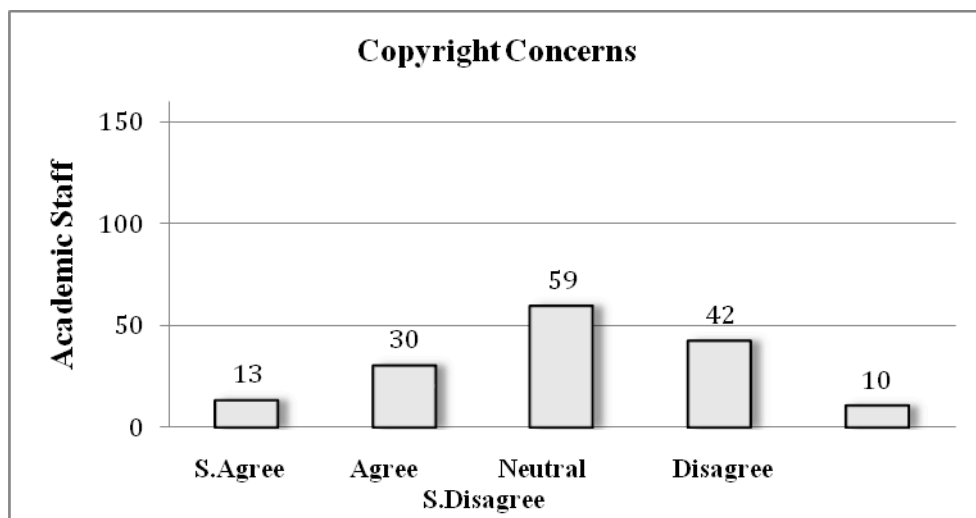


Chart 9: Policies and procedures (Copyright Concerns)

Deposit Published articles

When the respondents were asked to express their opinions on whether only published research should be deposited in PAAET's Institutional repository, 15 and 44 out of 154 of the respondents **(38%) strongly agreed and agreed** (as illustrated in Chart 10), while (26%) 32 and 8 out of 154 disagreed and strongly disagreed with the statement and 55 out of 154 (36%) of the respondents were neutral.

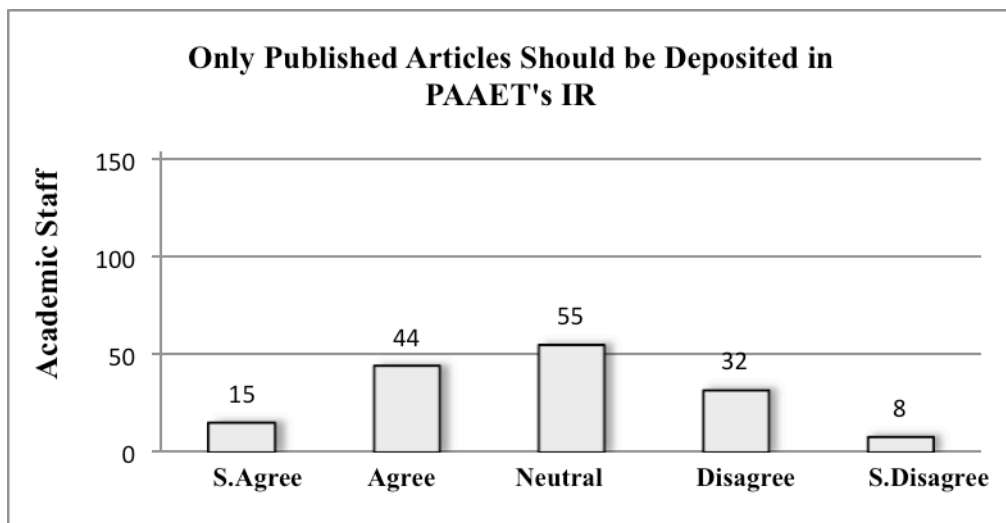


Chart 10: Policies and procedures (Deposit Published articles)

PAAET's need for an OA Policy

A comparison between two statements on whether PAAET needs an OA policy to implement an open access IR for research active members' outcomes was explored; one statement had a positive response and the other negative. It was found in the first statement that the half of academic staff **15 and 63 out of 154 (51%) agreed or strongly agreed** that they support the need for an OA policy to establish an IR (See Chart 11), while only (13%) 13 and 7 out of 154 who disagreed or strongly disagreed and 56 out of 154 (36%) remained neutral.

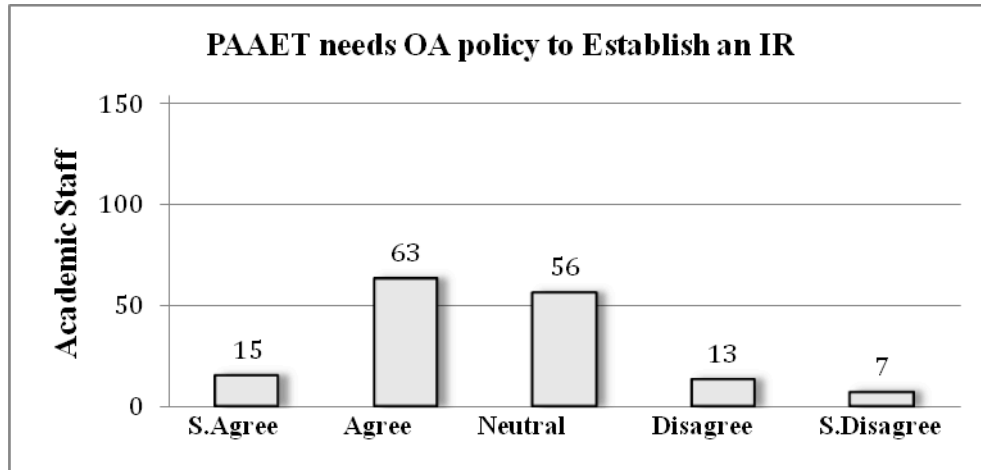


Chart 11: Policies and procedures (PAAET’s need for an OA Policy)

For the second statement just over half, 95 out of 154 (**62%**), **responded neutral** and the least response was 16 and 10 out of 154 (16%) who strongly disagreed or disagreed. Whereas 7 and 26 out of 154 (22%) who supported this statement by agreeing and strongly disagreeing (See Chart 12).

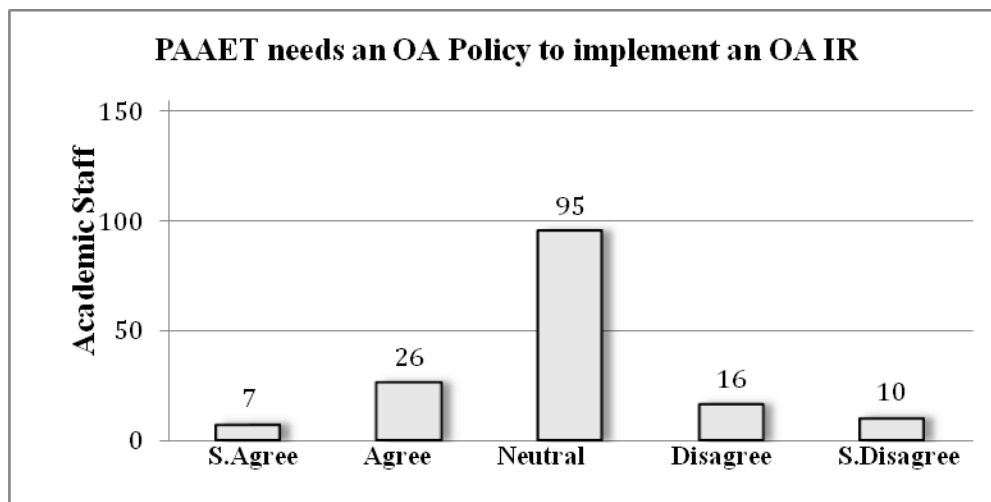


Chart 12: Policies and procedures (PAAET’s need for an OA Policy)

5.9.3 Organisational resources

In this section PAAET’s level of resources and professionals are explored and it presents an analysis of the responses to statements regarding these specific issues.

IT Infrastructure

But in term to the statement “*Technology resources do not prevent the implementation of an open access policy*” (53%) 27 and 55 out of 154 of the respondents strongly agreed or agreed that technological resources is not an issue for implementing an OA policy (as illustrated in Chart 13), which, clearly indicates they are not aware the practice of an OA policy; and 56 out 154 (36%) were neutral, the least were 15 and 1 out of 154 (11%) who strongly disagreed or disagreed.

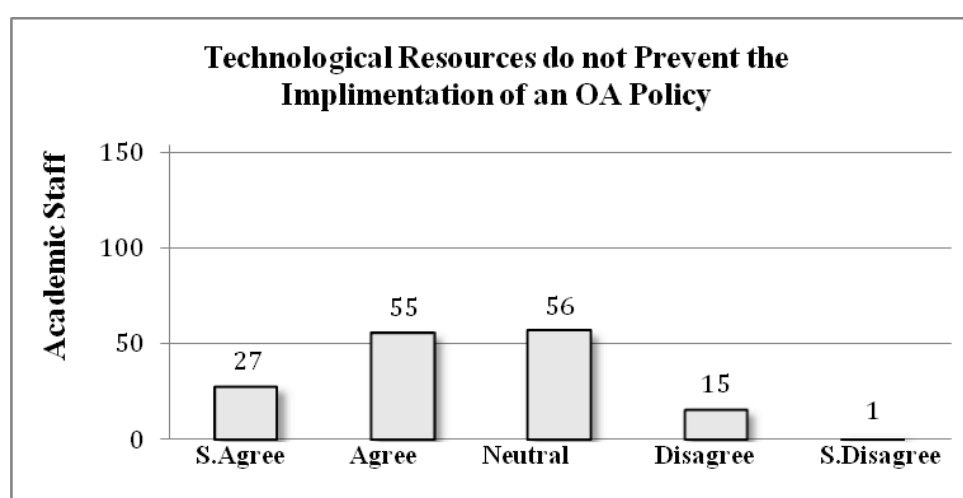


Chart 13: Organisational resources (IT Infrastructure)

Information Professionals

In terms of the issue of the lack of OA professionals in PAAET that can support it through IT and Advocacy of an OA policy, academic staff were more likely to support this statement “*Lack of Open Access professionals will prevent the implementation of an open access policy*” as 12 and 60 out of 154 (47%) agreeing or strongly agreeing with the statement compared to 26 and 5 out 154 (20%) disagreed and strongly disagreed, while 51 (33%) were neutral (See Chart 14).

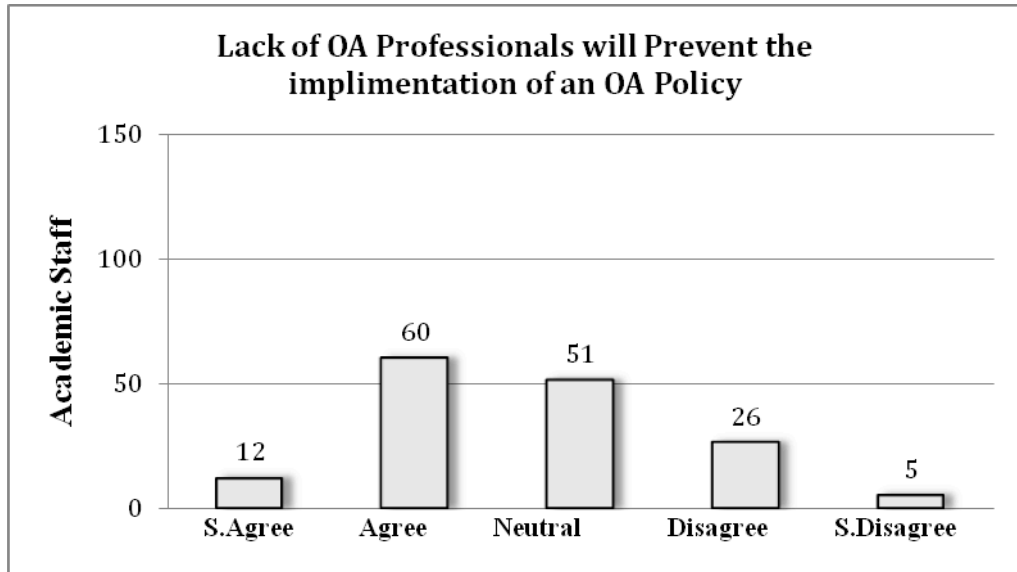


Chart 14: Organisational resources (Information Professionals)

5.9.4 Organisational tensions

Financial Issues

This section explores organizational tensions focusing on the financial issues that affect the implementation of an OA policy within PAAET. To explore whether or not financial issues is an institutional tension in PAAET, academic staff were asked if '*open access could help my institute to reduce costs*' and responses to this statement was a very close response was between (as shown in Chart 15), 17 and 50 out of 154 (44%), who strongly agreed or agreed and 69 out of 154 (45%) that was neutral. And the least were 16 and 2 out of 154 (11%) who strongly disagreed or disagreed that OA will help make a difference for cost in PAAET.

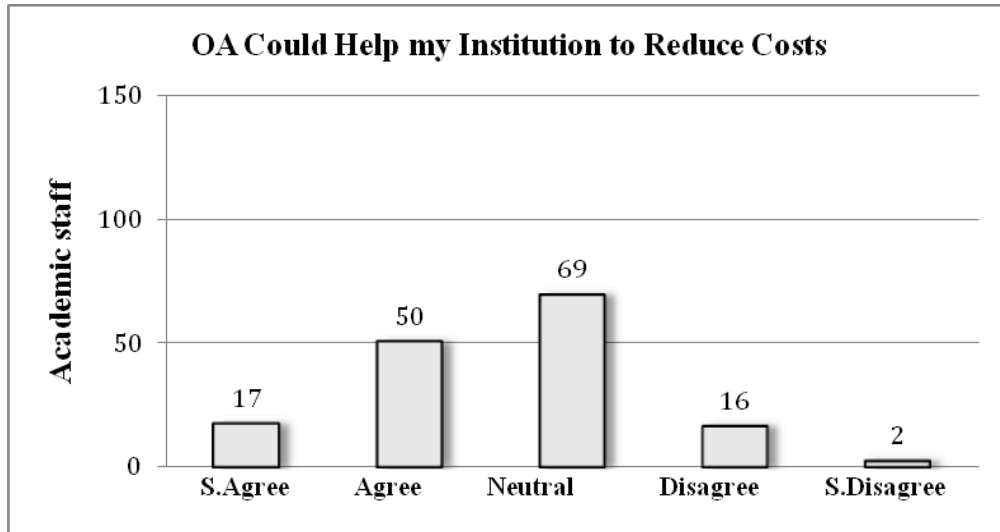


Chart 15: Organisational tensions (Reduce Costs)

Research Funds

Another financial issue was explored that are related to funds, responses to the statement: *“The financial department will provide more research funds when open access policy is practiced in my institution”* (56%) **26 and 62 out of 154 respondents agreed and strongly agreed** that more funds will be provided by the financial department. While, 60 out of 154 (39%) were neutral and very few respondents 6 and 1 out of 154 (5%) who disagreed and strongly disagreed upon this statement (See Chart 16).

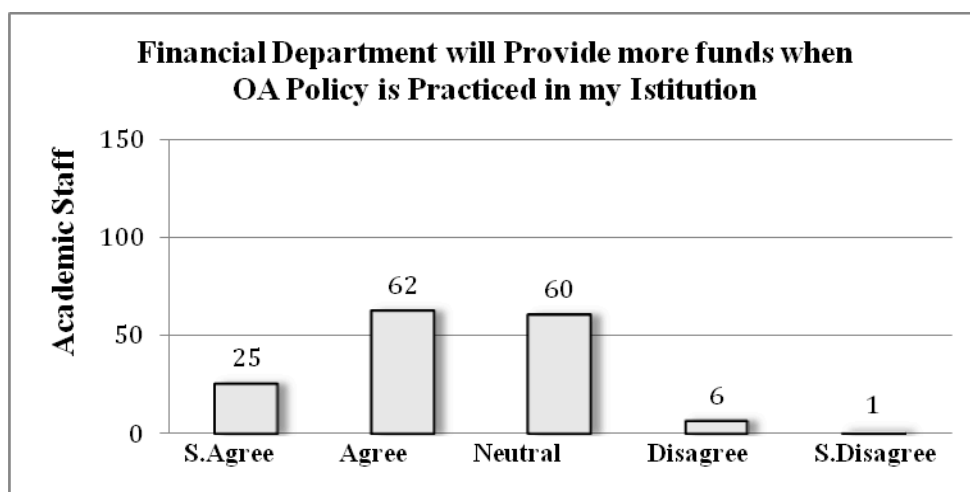


Chart 16: Organisational tensions (Research Funds)

Deposit funded Research

When further analysis was conducted on “*Only funded research by the financial department should be deposited in PAAET’s institutional repository*”. 11 and 26 out of 154 (24%) agreed and strongly agreed compared to 55 and 13 out of 154 (**44%**) **disagreed and strongly disagreed** (See Chart 17). And 49 (32%) were neutral in their responses.

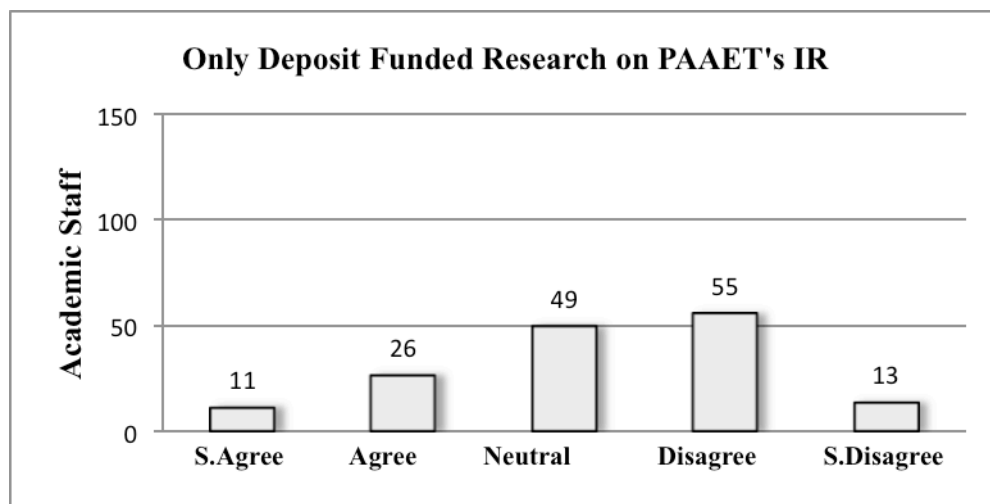


Chart 17: Organisational tensions (Deposit funded Research)

Financial barrier

But respondents had an opposite view in regards to whether the financial issue is not a barrier, more than half 84 (**55%**) **had a neutral response** and 7 and 48 out of 154 (35%) agreed or strongly agreed (as illustrated in Chart 18), while 15 out 154 (10%) disagreed and 0 out of 154 strongly disagreed.

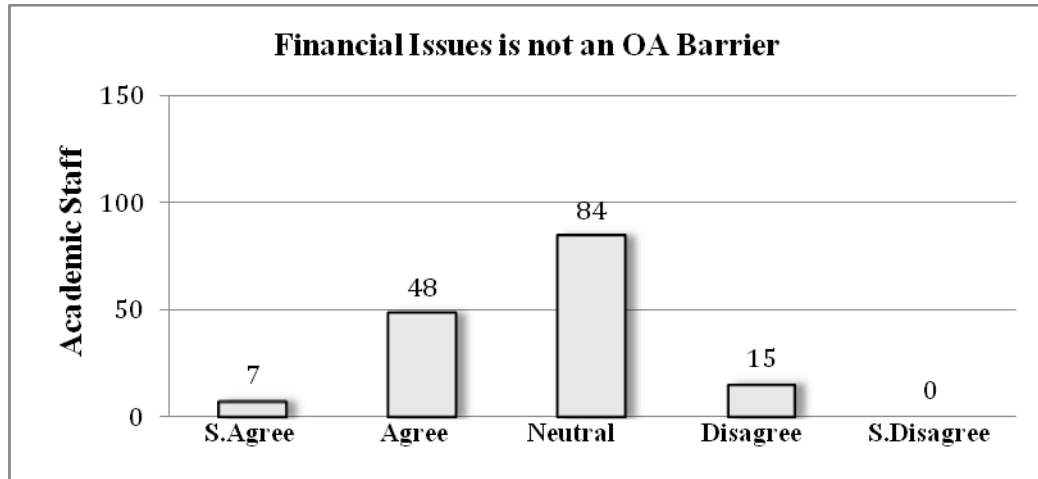


Chart 18: Organisational tensions (Financial barrier)

5.9.5 Overcoming Challenges

To explore the level of responses towards institutional efforts to overcome the lack of awareness towards OA within PAAET, therefore, respondents were asked whether “*More efforts must be made by my institution to spread the awareness of Open access*”, the vast majority of the academic staff (71%) 35 and 74 out of 154 strongly agreed or agreed. While 10 and 4 out of 154 (9%) strongly disagreed or disagreed, and 31 (20%) were neutral that thought there is no need for efforts to be made by the institution to spread the awareness of Open access (See Chart 19).

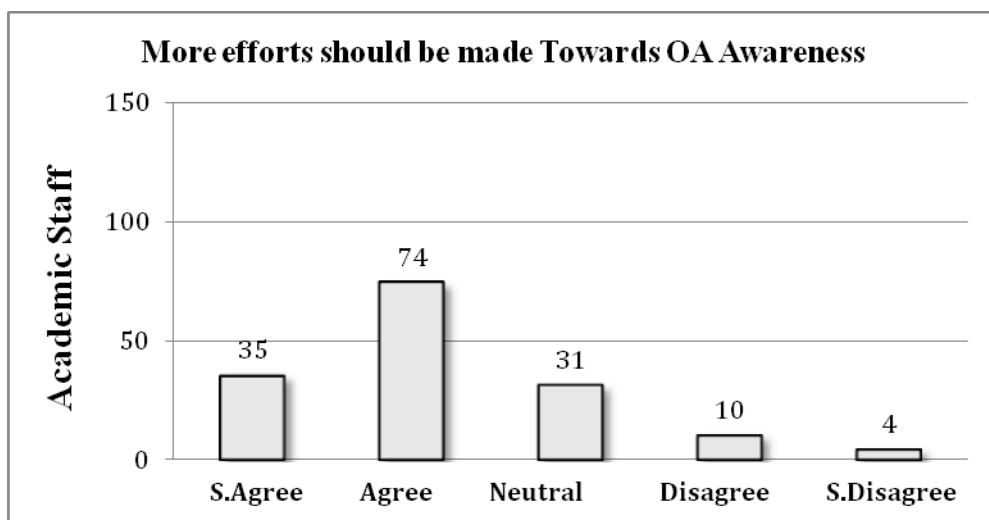


Chart 19: Overcoming Challenges

5.10 Summary

In this chapter, qualitative data were drawn from the interviews and presented according to the themes derived from TORC. The analysis of the interviews revealed a range of perceptions regarding issues related to OA. These perceptions varied according to awareness level, profession and background of participants, and the level of top management support. The majority of interviewees,, regardless of background, agreed that OA is important to enhance the role of the institution, although they lacked awareness about issues concerning the OA trend in general. Moreover, faculty members were not aware of the need for or the importance of an OA policy. On the other hand, librarians were more clear-sighted in regards to barriers and the cultural challenges that affect readiness for OA policy implementation. The main reason for these differences goes back to their professional backgrounds and the needs of academic staff. In general, most of the questionnaire results were consistent with the interview results, which enhances the research findings.

One of the main findings is the role of organisational culture and its particular impact on policy decision making and staff consultation, which will pose a challenge for OA policy.

These findings of qualitative and quanttative data will be highlighted and discussed thoroughly in the next chapter and correlated with previous studies discussed in the literature review.

6.0 Introduction

This study will both make a contribution to knowledge and have a practical impact on PAAET. It has investigated perceptions towards OA and identified issues that influence readiness for the implementation of an OA policy in PAAET. The research questions were formulated as: “What are the perceptions of stakeholders in respect of OA in PAAET/Kuwait?”; “What are the factors that affect the readiness of OA policy implementation?”; “How do these factors affect the readiness to OA implementation in Kuwaiti HE/PAAET?”; and “Why are these factors present in Kuwait HE/ PAAET?”.

This chapter discusses the main findings and draws together the results of the research, bringing together evidence from the literature review, and the interviews and questionnaires, in order to find the factors that affect readiness for OA policy implementation. These factors can pave the ways in promoting an effective OA policy in public HE in Kuwait, and specifically at PAAET. Cross referencing the findings and relating them to previous research conducted are discussed, involving a collection of issues or factors that have emerged from the research. The chapter discusses the key findings from the literature review, qualitative and quantitative analyses and compares and contrasts the results.

6.1 A Theory of Organisational Readiness for Change

This research used the theory of organisational readiness for change (TORC) (Weiner, 2009) to provide a realistic method of handling the unique Kuwaiti concept that influences readiness for OA policy implementation and offers a direct guide and appropriate

strategies that fit PAAET's environment. It is the first time that this theory has been applied in this new setting. The theory offers a means of merging the organisational and cultural views of organisational readiness found in the study. It was used as a foundation study to identify organisational resources, culture and procedures that indicate the importance of readiness towards OA policy implementation. In other words, researchers must take into consideration the organisation's structural resources, organisational culture and tensions in formulating their planned change in implementing an OA policy.

The theory revealed that organisational members are unlikely to hold similar views about readiness. Higher management, as illustrated in the previous chapter, have different views and authority on policy decision and implementation actions; lower down the hierarchy, academic members may have little opportunity to interact and share information, and limited authority in policy implementation. Conflicting views indicate lower organisational readiness, leading to problems in implementation that demand coordinated action among organisational actors. The current study highlighted the challenges created by organisational culture, which relies on a top-down hierarchy for decision making and implementation. The lack of consultation and information about potential change with every member of staff in an organisation is a common point which seems to either disengage staff and reduce their involvement in the change process, as illustrated by in number of interviews.

Lack of staff consultation in new policy developments

TORC treats organisational readiness as a shared group property, that is, organisational members should be aware of a policy's purpose and requirements, be committed to implementing the new policy, and should be confident in their cooperative abilities to do so. This way of thinking about organisational readiness is best suited to situations where coordinated change is necessary in order to effectively implement the change. Predictable benefits are more likely using TORC. This research set out to investigate OA policy readiness and highlighted cultural challenges, which are characteristic of academic institutions such as PAAET, and an inadequate change management culture. This study is, as far as the researcher is aware, the first detailed study on change management in Kuwaiti public administration. The results are consistent with studies in developed countries where

strong hierarchical leadership without staff consultation results in high staff resistance to change and reduction in its effectiveness (Morgan and Zeffane, 2003; Proctor and Doukakis, 2003; Raymond, 2002; Campbell, 1995). This study allowed different stakeholders to voice their opinions, and although some might have been cynical about their contribution to the actual policy development, because of the established culture, there were others who were very helpful in sharing insightful comments. This is the first study in PAAET which gives academic staff, middle management and librarians a voice to comment on policy development, consultation which has never been done before in a Kuwaiti HE institution. This evidence suggests that there is willingness from staff at different levels to be involved in future policy shaping, identifying steps which could help the organisation as well as individuals to feel part of the decision-making process, and thus become change agents themselves, driving change and innovation forward.

This research has confirmed several factors identified by TORC, and an additional one not mentioned in the literature. A total of six contextual factors (main headings) were identified; five are from the theory and one was added by the researcher (Organisational Tensions); and 14 new sub-factors emerged during analysis, representing issues that affect readiness for OA policy implementation. The main contextual factors and sub-factors are:

I. Policies and procedures

- 1. Management encouragement for policy implementation:** the role of the senior management is important in establishing guidelines to encourage the implementation of any policy will be put into practice within academic institutions.
- 2. Government influence:** the government plays an important role as a facilitator and a supporter of the OA movement, yet again highlighting hierarchical top-down decision-making at the national level. This involves establishing a budget for promoting OA policy within academic organisations through appropriate strategies and by promoting an OA culture that encourages the OA trend.
- 3. Type of OA policy:** the choice of a mandated policy suits the needs and practice of an academic institution.

II. Past experience

4. **Resisting change:** public sector organisations, as in Kuwait, are owned and influenced by government regulations, and are recognised as slow in decision making and reluctant to embrace change. Since there is a culture of **not consulting or involving staff** in introducing policy change, past experience suggests that change will be slow and often fails due to the lack of sustainable processes to manage it.
5. **Language:** the level of competence in the English language, widely used in working with technology, is an issue. Despite opportunities to develop skills, there is a culture of relying on librarians to support research efforts.
6. **IT Competence:** the level of skills and training for academic staff in how to use new systems and associated programs yet again highlights the difficulties of past policy project implementation.

III. Organisational resources

7. **Technological resources:** identifying the technological issues (IT infrastructure and support) could influence readiness for OA policy implementation in HE.
8. **Information professionals:** implementing technologies by providing hardware and software are not sufficient without training, possibly requiring external support (professional staff including information specialists, an OA team) to manage the OA policy.

IV. Organisational Structure

9. **Gender segregation:** this was identified as a cultural challenge as it is a state regulation, and was seen by many interviewees as a potential barrier to implementation of new policies especially; some staff would not interact with members of the opposite sex because of existing cultural norms in place in PAAET.
10. **OA society:** although ideally a flatter organisational structure should be introduced, the cultural reality is that this would be impossible in the near future. It would

involve identifying appropriate groups of research-active staff within PAAET's institutional structure, to practice an OA policy and contribute to it if implemented.

V. Organisational Culture

11. Bureaucracy: this was identified as a norm in the institutional culture of PAAET, and could influence readiness for and slow down the implementation of the policy.

12. Favoritism or *wasta*: *wasta* play a major role in the organisational culture, which means that policy change can depend on the position of the person in charge of the project and their relations with higher management in developing and implementing a policy.

VI. Organisational Tensions

13. Interdepartmental collaboration: lack of collaboration between department managers in deciding who would take on the responsibility for OA policy implementation proceedings and initiatives, was raised in most interviews. There is no clear authority in who to address or who will set the standards for implementing an OA policy.

14. Budget and funding: the lack of a budget allocated to this project is considered to be an impediment to implementation of OA or any other policy. Finance is also seen as a cause of tension for many academic institutions, affecting readiness.

6.2 Perceptions on open access

According to the findings of this research, there is currently no clear plan to educate and make the academic, librarians and management staff aware of OA. The Hawthorne effect was clearly witnessed in the participants, as most of the respondents became aware of OA during the interviews. This study has itself increased awareness of OA by engaging the main stakeholders in discussions on the topic. The initial responses were hostile and in some cases dismissive – for example, one participant stated that there is already a system

in place, which allows access to knowledge from PAAET. This was partially due to a misunderstanding of what OA means, and a general feeling that there is no need for change. As a result of poor understanding of OA issues, the findings put a strong emphasis on the perceptions and readiness towards OA policy implementation. As mentioned previously, this is also the first study of its kind which allowed views from different stakeholder groups to be heard and taken into account when a potential OA policy is considered for this organisation.

6.2.1 PAAET's perception of OA and OA's benefits

When considering the perceptions of PAAET's academic staff regarding OA, as recorded in both the qualitative and quantitative data, there was little knowledge about the OA trend; stakeholders had no clear understanding about OA or the OA policy which would be required in order to develop a strong strategy for implementation.

Lack of OA awareness

It is widely recognised in the literature that the perceptions of OA awareness and understanding are important factors that influence readiness for implementing an affective OA policy. Pinfield (2004b) stated nearly a decade ago that researchers and academic institutions are unaware of the possibilities in relation to open access. The qualitative analysis revealed that the majority of academics thought that the institution was not aware of OA, although it has been embraced in several institutions in developed countries. Moreover, the vast majority of the interviewees had never even heard of the concept

I have no acknowledgement of open access practice in PAAET's colleges. There is no role for open access that I can see ... In my opinion we have not reached the stage of recognising it yet (Interview 11, 29/07/2012).

There is very little awareness within the academic community of such trend as we currently have a database department "Libranet" to support our academic needs (Interview 2, 27/07/2011; Interview 3, 07/08/2011).

However, the quantitative results show otherwise as more than half of the participants thought that OA is important, which clearly shows a contradiction in the awareness and understanding of OA in PAAET. On the other hand, in the qualitative results some librarians in particular showed an understanding of OA in PAAET as an information process, presumably because of their background and the nature of their work. Similarly, they recognised the need for an OA policy, based on their professional experience and their ways of accessing information. Both among academic staff and librarians believed that an OA policy is needed to facilitate the retrieval of information.

Negative opinion were expressed by faculty; they believed that OA is a form of publication that may threaten their research; therefore, as Pinfield (2004a) suggests, academic institutions and their members need clarity about their rights in terms of publications. This highlights the insecurity about and minimal awareness of the concept of OA. This is consistent with several studies over the last decade in developed countries, such as those by Lin, Xiwen and Xiaolin (2009), Morrison (2007), Swan (2006, p. 54) and Pinfield (2004b), who confirm that many researchers remain unaware of the OA concept or, if they have heard of it, they remain ignorant of its implications. Therefore, there is a need to inform researchers and policy makers about OA. Overall, in terms of awareness of OA, there were no significant differences in participants' knowledge of OA.

Few interviewees expressed the opinion that there is no need to apply OA in PAAET. This finding was consistent with Pinfield (2004b) that researchers and their institutions are not necessarily asking for OA. Moreover, the majority of opinions towards the need for an OA policy were somewhat positive and were related to improving individual and organisational performance in PAAET as well as gaining recognition in the wider academic community and visibility of the research projects undertaken. This could be due to the Hawthorn effect, as this study made them think about OA in detail and allowed them to consider the potential benefits.

OA Benefits

The qualitative results were expressed positively and it was obvious that senior management were enthusiastic about the idea of OA, firmly believing that the country

would benefit from it and increased international academic visibility. This is consistent with Pinfield *et al.* (2002), Anbu (2011) and Kirsop and Chan (2005) who noted that OA provides a better picture of a country's research output and areas of specialisation and reconnects national and international research. Some faculty speculated that OA is a set of standards intended to share research and gain recognition for both individuals and the organisation. In terms of quantitative results, positive responses were found towards the impact of OA on their role in PAAET, which was consistent with the literature (Jeffery, 2006; Pinfield, 2004a, b, 2005); on the other hand, respondents showed little difference in their response that OA could help improve a researcher's career. These findings indicate that some respondents understanding OA more as technical support to their profession rather than to their career, organisational or national development.

Some librarians expressed an opinion that OA could help the library manage research and information, setting standard procedures for organising information. Faculty corroborated that view, since OA could help to organise research funded by PAAET according to a documented policy; in other words, an OA policy would help guard and keep track of all research funded by PAAET. Furthermore, the quantitative results show that the majority of respondents thought that OA could help keep track of research active members' output in PAAET.

The benefit as far as I know, it is to organise new information and to protect PAAET's funded research(Interview 16, 06/08 2012).

Librarians also had a different understanding of the benefits of OA; OA policy could be directed at freshmen students, in other words it would facilitate their information retrieval skills from the beginning of their university career. This suggests that their understanding of OA policy included serving and assisting students in accessing information as soon as they enrol in PAAET. The increased engagement of undergraduate students and their potential access to research conducted in PAAET is a view which has not been previously acknowledged in the existing literature. Undergraduate students being more exposed to research results in their home institution could increase their interest in research; they

could talk to faculty about their research in more detail, thus increasing their in-depth understanding of subject areas which they might not have considered before and were not part of their standard curriculum.

To obtain a better picture, it is important to explore further the levels of awareness of respondents in terms of OA and OA policy benefits in the quantitative results. Not surprisingly, these results showed conflict and contradictions. This highlights the importance of the interpretive nature of such studies and the challenge in getting a clear view from one institution. Therefore this analysis represents all points of view. For example, respondents seemed to show an understanding of OA's influence towards increasing citation opportunities, but they did not think that it would avoid duplication of research effort. Moreover, they did not believe that an OA policy encourages research-active members to do their work in an OA IR. The questionnaire findings also revealed that more than half of the academic staff had positive attitudes towards OA since it could increase the motivation for research-active members to publish (Kim, 2010; Harnad, 2008b). However, this contradicts the fact that the majority of respondents were negative about OA as a way of keeping track of research-active members' output in PAAET. This strongly suggests that they are not sure what the benefits of OA are, and have no clear understanding about the benefits of an OA policy.

The above findings agreed with a large number of studies (Lawrence, 2001b; Antelman, 2004; Harnad and Brody, 2004; Suber, 2004; Brody, *et al.* 2004; Kirsop and Chan, 2005; Pinfield, 2005; Zhang, 2007), that the obvious benefits of the OA movement are that researchers can quickly and widely disseminate their research and receive increased citations; it is better for the researcher's career; and it will help the institution by showcasing their faculty's research output through institutional open archives/IR, which can bring prestige to both researcher and institution.

These views reflect some understanding of OA and OA policy, but it is likely that understanding is also a reflection professional background (manager, librarian, faculty member). The following conclusions can be drawn: **Qualitative and quantitative analysis of PAAET's perception towards OA uncovered low awareness in terms of knowledge of the OA trend and how policies promote OA initiatives. There is also low**

recognition about the importance of OA for PAAET. The researcher supports the opinion of previous studies and agrees that research that OA is better than non-OA publications, spreading the work of the institution among the research community. With OA, PAAET will be able to connect with the international academic community through dissemination of its research output, an important reason for PAAET to set strategies to raise and increase awareness among its community in order to be ready for OA policy implementation.

- Contextual Factors and Sub-factors of the readiness of OA policy implementation**

6.3 Policies and procedures

The results of this study uncovered four sub-factors in contextual factor Policies, Procedures and Past experience: management encouragement for policy implementation, considerations of policy implementation, government influence, and type of policy. These sub-factors are associated with policy and OA initiatives, and how they influence readiness for the implementation of OA policy in the HE sector, specifically PAAET.

6.3.1 Management encouragement for policy implementation

The literature review (see chapter 2) confirms that senior management has an important role in establishing guidelines to encourage the implementation of any policy that is practised within academic institutions. It was clear from the qualitative analysis that management support was recognised in this study as a factor that can influence readiness for OA policy implementation. Given PAAET's strongly hierarchical organisational structure, the role of senior leadership is especially important in this exploratory case study.

Qualitative results uncovered that senior management were open to involving staff, according to their specialties and depending on the type of policy that will be implemented. This reveals that senior management are aware and have consideration of their role in

terms of policy implementation for improving PAAET's organisational performance in terms of research output. However, it was made clear that there were no written strategies from top management regarding the involvement of lower-level staff in any policy structuring. This lack of staff consultation in change management processes is widely recognised as a common mistake (Raymond, 2002; Morgan and Zeffane, 2003; Proctor and Doukakis, 2003) and highlights the need for organisational culture change not only in the area of OA but also any other policy development. Other interviews revealed that approaches to policy implementation in PAAET were not clear or systematic, again highlighting potential for organisational culture change and the need for document trails and written practices which could be repeated as needed. This mainly suggests a lack of formal strategies by higher management in encouraging and supporting general policy implementation and development. Moreover, others revealed that higher management did not consider OA initiatives in their strategies or policies. Nevertheless, one of their written aims is to restructure (implying the continuous need for change management processes) PAAET in order to develop the quality of their education and technologies and to stay ahead in terms of delivering qualified, skilled labour for the Kuwaiti market (PAAET, 2005) and to stay competitive in the changing world.

Morrison (2007) suggests that there is a need to educate researchers and policy-makers about OA. This view and the need for education is supported in this exploratory case study. These findings revealed that senior management have a limited understanding of OA policy implementation; certainly, their knowledge would need to be improved in order to proceed with the OA policy implementation process. Therefore, as acknowledged by others, key players have a responsibility to take a strategic view and provide leadership in their communities (Pinfield, 2004b); and the need for leadership development is also highlighted in this study, should OA be selected as an option for this institution.

Moreover, some interviewees in middle management did not feel that they were recognised as a source of valuable contribution, as they had no involvement with top management in decision making or making policy. Lynch and Lippincott (2005) suggested that participation in policy decisions should involve faculty, academic administration, departments and different units in the academic institution in order to get both their input and their commitment. Pinfield (2004a), also suggested that people from different parts of

the institution should have a say in institutional policy, which again supports the need for change management policies to be developed first so that staff consultation is a standard step in any policy development.

It was clearly identified from the qualitative results that the absence of support and leadership from top management represented a barrier. Librarians felt that there is no recognition of their activities as professionals or encouragement for arranging meetings that would support their involvement in order to share their professional opinions in terms of policy implementation. On the other hand, a few expressed the opinion that there is such involvement of professionals in PAAET. It appears that there is a deficiency in interaction between top management and academic staff on how to share their views and experiences, as illustrated in the quote below:

Unfortunately, the current leadership within PAAET, as well as the management does not encourage academic staff to be involved in policy implementation as there is no recognition to our activities by the top management and there is no support for holding meetings that would let us share our professional opinions (Interview 13, 29/07/2012).

In addition some librarians criticised the lack of significant encouragement made by top management to compare research output between faculty and departments by posting research numbers on the official PAAET website. It was also indicated in some interviews with faculty that the lack of involvement of academic staff in decision-making processes made them feel not to be part of the organisation. As a result, they do not feel motivated to practise the policies implemented by the institution, as illustrated in the quote below:

There is no direct involvement by faculty in policy implementation as the senior management is not aware of the members that can contribute positively and gain from their experience... they can start by posting the faculty's contributions on PAAET's website, this will make them aware of whom can contribute positively by brainstorming ideas if required (Interview 15, 02/08/2012).

It is clear that academic staff are demanding more involvement in long-term decision making which will affect them and that they want the support of management in such initiatives. It is also true that senior managers are not dedicated to a clear strategy about policy application, as mentioned earlier. PAAET should be seriously concerned about the situation and a clear institution-wide strategy should be developed in order to make a step-by-step change in managing and supporting the very important policy issue of OA.

Management support and leadership was acknowledged in the change management (Brown, 1998; Senior, 2002; Davies et al., 2001; Raymond, 2002; Campbell, 1995) as well as the OA policy literature (Swan and Brown, 2004a,b; Pinfield, 2010; Morrison, 2007; Abrizah, 2010) as an important element in implementing change. If leaders are not completely committed, successful implementation will be unlikely. Davies et al., (2001) emphasise that the role of leadership is to create vision, communicate policy, and deploy strategy throughout HE institutions. Leadership is a fine balance of providing commitment, motivation, and direction (Brown, 1998; Senior, 2002). Therefore, for effective OA policy implementation, higher management must involve all organisational levels in a consultation - this involvement was practised in the current exploratory study.

Quantitative analysis revealed the same negative results; some academic staff believed that the institution's collaboration with other institutions through OA would be difficult. These results indicate that the majority do not see that OA can help in institutional collaboration with other institutions. The literature suggests different views, and Bosc and Harnad (2005) stated that progress in research is based on a worldwide collaborative, cumulative and self-corrective cycle of publishing, accessing and using research findings in order to generate further findings, applications and publications. Magara, (2002, p. 241) argued that digital libraries and electronic technologies contribute to collaboration between HE institutions. On the other hand, responses were positive in regards to whether the institution could gain a better picture of research outputs by implementing an OA policy, which shows that there is some insight into the impact an open policy can have on the institution's output within the international academic community.

This research revealed that the unstable situation of the management support and the involvement of academic staff in decision making towards policy implementation are considered an impediment towards the readiness for implementing an OA policy in PAAET. This researcher believes that implementing an OA policy would occur only if the higher managers are actively involved in and attend to academic staff requirements, in addition to setting strategies for promoting and advocating OA initiatives in order to progress and achieve readiness. In general, without appropriate leadership an OA policy implementation will not succeed; only dynamic leadership can create the commitment to achieve readiness. Moreover, the need for a documented change in management policy, to include all staff in the future shaping of the institution to comply with the aspirations of PAAET to continuous improvement, can only be achieved if all staff have are committed to such practices and see changes in the culture of disengagement of institutional policy. An organisational culture which includes regular consultation in meetings, and workshops and newsletters to highlight the strategic direction of the institution, is necessary to achieve the environment needed for PAAET to become the institution it aspires to be.

6.3.2 Government Influence

The qualitative results revealed that there is no direct influence by the government with regard to intervening in decision making or implementation of an OA policy. As implied by the senior management, PAAET is an academic institution and has no political activities. The only influence will be the financial support that is provided by the Ministry of Finance. It was obvious that most of the interviewees hesitated and did not respond to this question; as they are not being involved by management in policy implementation they have no idea about the government's role in such processes. (Section 6.2.1)

There is no direct influence by the government as we are an academic institution and have no political activities. The only influence will be the financial support that is provided by the Ministry of Finance (Interview 1, 27/07/2011).

Quantitative analysis also revealed that the majority of academic staff had no insight into governmental influence on policy implementation. The researcher speculates that some of the concerns here, not specifically voiced by the respondents but clearly felt, were related to the sensitivity of the issue. This raised the interesting question of which topics were identified by the majority of the participants as ones which they refused to answer or seem hesitant about, and why? It might be related to their readiness for OA policy implementation. This point will be discussed further in Section 6.7.

Several authors (Diamond, 1986; Garfield, 1988; Harnad, 2001; Swan, 2005; Pinfield, 2010; Houghton, Swan and Brown, 2011) agreed that research funders such as the Research Councils and government are in a strong position to initiate developments in OA, by setting up OA support systems to ensure their policies are implemented. That is, government can play an important role as a facilitator and a supporter of the OA movement at a national level. This can be achieved by establishing a budget for promoting OA policy within HE institutions, through appropriate strategies. PAAET is a government institution, so the state largely imposes its main strategies and policies. Funding policy will be discussed further under Institutional Tensions (section 6.5.2).

Research funders play a crucial role in policymaking with respect to OA. Where funders are spending public money they will wish to ensure that the results of their funding are disseminated as widely as possible and used by all who can benefit. **Hence, the researcher agrees with previous studies that the government should attempt to create a fund for research projects by making OA policies mandated in all academic institutions and to contribute a certain percentage of their budget to support such trends. Moreover, given that public funds are spent on research, the research findings should also be publicly available, and project funding made conditional on open publications; this would ensure that OA policy is enforced over a long period of time and is sustainable for both the institutions which would receive funding and the government since they can enforce the publication of results in this way.**

6.3.3 Type of open access policy

With regard to the types of OA policy that should be used in PAAET, the qualitative results disclosed the opinions of PAAET's senior management that a mandated policy is appropriate, as a voluntary policy would have no impact on faculty members. Moreover, mandated policies are the most common type of policy in PAAET. This reveals that as an academic institution funded by the government, they have to make sure that any policy implementation should be mandatory to all academic staff. t. These policies should be made strictly by professionals, as highlighted by the following interview quote:

It will be difficult to control and demand from faculty members to deposit their studies in the database as they already have the choice to do so or not. On the other hand, a mandated policy in PAAET will be more exposed to the national and international academic society (Interview 2, 27/07/2011).

On the other hand, faculty and middle management interviewees had different points of view, and it was suggested that a voluntary policy is the best option for the academic staff, emphasising giving faculty members the choice to deposit their publications, as there are also concerns about time and copyright. This is consistent with Baker (2010, p.22) who states that some faculty hesitation results from concern that open access policies will restrict their publication opportunities. The following quotes on voluntary OA policy illustrate this point from PAEET:

...A voluntary open access policy is the best and most appropriate type of policy for us to practice as an institution. It the best option that can be applied for faculty members in order for us to gain trust in using such system. We also have to overcome the barrier of the use of electronic systems among faculty members (Interview 16, 29/07/2012).

It will be very difficult to force faculty to a mandated policy and that is due to the lack of time have and as for most scientific publications copyright issues must be taken into consideration (Interview 5, 12/07/2010; Interview 6, 14/07/2011).

On the other hand, it was signified by librarians that a voluntary OA policy is a weak option for PAAET as it gives the faculty the choice; nevertheless, they expect them to deposit their research in the repository without the need for specific regulations. Swan and Brown (2004b) suggest that librarians state that they need leadership from senior management and proper institutional mandatory policies to affect change in the institution. Sale (2006b), Baker (2010) suggests an alternative for a graduation mandate if the institution can't manage to gain institutional mandate they are advised to work towards getting departmental (school/faculty) mandates one by one. This finding is also in line with the opinions of authors such as Sale (2006b), Harnad (2008b) and Swan and Brown (2004b), who all noted that a mandatory policy works better than a voluntary one. Overall, the literature supports the view that in the vast majority of cases a mandatory policy is the best and most effective option.

The quantitative analysis exposed that the majority of participants did not agree that a mandated OA policy would be most applicable in PAAET; further analysis showed that academic staff also had the same opinion on implementing a voluntary OA policy and that it is appropriate for PAAET. Hence, in order to vindicate acceptance of a mandated or a voluntary OA policy, it was important to understand if they were willing to deposit and self-archive their research in PAAET's OA IR, and in this regard very few of the academic staff expressed support or willingness to do so.

Self-archiving

Academic staff also responded to the ease of self-archiving in the IR, and surprisingly the responses were positive that self-archiving would be easy; however like other questions in this section a substantial number attracted negative responses. The negative result of these responses could be related to their IT competencies (section 6.2.2.3); this is consistent with Swan (2006, p.56) who suggests that authors' anxieties arise because they are not sure what the process actually involves.

Copyright and Agreement

In regard to exploring the type of policy, copyright concerns were taken into consideration in the investigation. Consequently, quantitative results revealed that academic staff are

aware that an OA policy could bring out copyright concerns with publishers if peer-reviewed articles are deposited in PAAET (IR). It also appears that they are not ready to agree to granting the institution permission to make their scholarly articles available in the IR, or to excise the copyright for those articles. This indicates that they have no clear picture what the copyright agreement is about. As Sale (2006b) argues, the author must accept the repository deposit licence before they can deposit or self-archive, so it is important that they understand what they are agreeing to. Therefore, these issues should be clearly understood in order for PAAET to reach the level of readiness for OA policy implementation. Copyright laws could possibly create a barrier to launching OA repositories (Grgic and Barbaric, 2010).

The need for an OA policy

Furthermore, quantitative results highlighted two statements on the need for an OA policy to implement an open access IR in PAAET. There was an obvious disagreement in their responses and this revealed that readiness to implement an OA policy is fairly low due to poor awareness and understanding of OA policy and OA initiatives among PAAET's academic staff.

Research results revealed that according to PAAET's regulations and institutional culture, the institution does not support the fact of implementation by a voluntary policy. Therefore, a mandated OA policy is more suitable for PAAET because, firstly, it grants funds to researchers and by mandating the OA policy they will be obliged to deposit their work in the IR. Secondly, the Ministry of Finance will not be likely to fund any type of system implementation unless the policy is mandated and within the institution. However, despite the fact that a mandatory policy works better than a voluntary one, The researcher agrees with previous studies that support working towards a mandatory policy gradually within the institution is a better option. This will give more time for advocating the policy and spreading awareness throughout the institution, and for academic staff to recognise the importance of OA and enrol as soon as they can see their colleagues benefiting from the OA IR results.

6.4 Past experience

The results of this study uncovered that Resisting change and Language and IT Competence influence the discussion relating to previous practice in PAAET; these issues could therefore impede readiness for the implementation of OA policy in PAAET.

6.4.1 Resisting change

It is widely acknowledged in the change management literature that it is in everyone's nature to resist change (Waddell and Sohal, 1998; Smith, 2005) in everyday situations, especially when they have no previous experience of the change. According to Jones (2009), the public sector organisations in Kuwait are owned and influenced by the government, which is known for slow decision making, a traditional outlook, and an organisational culture which hesitates to embrace change. Hassan and Ditsa's (1999) study which is over a decade old, noted that several interpretive studies found less readiness in reluctant cultures towards adopting IT; sadly the current study revealed that the situation in PAAET is still characteristic of this, and that little progress has been made in the given institutional context.

With regard to the current situation in PAAET and according to what was discussed in section 6.1.2, most of the interviewees did not have a clear understanding about OA nor about OA policy. Therefore, they felt uncomfortable about their future, lacking any understanding of how such change could affect them professionally. This view of a potential threat is recognised in the literature in other institutions. Pöschl (2010) argues that open access is not a threat but is an urgently needed prospect for the progress of scientific quality assurance and it should be considered as such, if currently misunderstood. Arguably, the misunderstanding in this case, as potentially in many others, is due to the lack of awareness amongst senior management and the wider staff body.

Some interviews with librarians specified that they have seen resistance to change in the past, particularly from faculty, which is inherent in the current organisational culture. However, this finding is also supported in the literature on other institutions in developed countries; for example, Gul, Shah and Baghwan (2010) indicated that scholars proved to be somewhat resistant towards OA. This suggests that the resistance to change that mostly

appears from faculty members in PAAET is not uncommon and can be expected. Others pointed out that the current situation of academic staff resistance stems from difficulty in accepting new trends, rather than refusing to practise them. It was also mentioned earlier that resisting new changes is an issue that affects the implementation of a policy (mentioned in section 6.2.1), especially the period of time taken in accepting the new policy. These two quotes remind us of the attitude to change implementation in PAAET and the need for sustainable practices to be implemented in order for change to take effect and be embraced by the academics and other staff:

The resistance to practising a new policy by some of the academic community is a very common reaction in PAAET; nevertheless, convincing them is also another long process (Interview 3, 07/08/2011).

Resistance to new tendencies is a normal reaction from academic members, as an evidence to that, many faculty members are not willing to use current systems we have or practice certain policies easily. Unfortunately accepting new trends with an open mind is not easy (interview 12,07/08/2012).

Faculty members also emphasised promoting and spreading awareness across PAAET before implementing any policy, as it is an important issue and should be taken into consideration; in other words, change causes pressure and becomes difficult for the academic community to accept easily without any sort of promotion or advocacy. Swan (2008) suggests that the barriers and benefits of implementing an OA policy must be discussed across the whole institution. One of the main reasons for this is the fact that such a policy has a wide-reaching institutional cultural impact.

As was highlighted in the literature, librarians play an important role in their institutions in providing guidance on OA issues, encouraging policy development and planning effective practices to manage OA services (Pinfield, 2010). The current study, in particular the qualitative results, revealed that faculty stated that the practice of new policies is not regularly monitored or supported by professionals in PAAET; therefore, there is no organisational culture of practising the policies accurately and thus these policies may not achieve the desired outcomes, as illustrated by the following quote:

Lack of promotion to new policies that the higher management wants the academic staff to practice and it is not monitored therefore not taken seriously... (Interview14, 29/07/2011).

Resistance to any change usually comes from both management and employees. Therefore, managers should treat resistance as an opportunity to evaluate the organisation's readiness, in order to acknowledge and deal with the real barriers towards OA policy implementation. This view is supported in the literature, in particular Raymond (2002); Campbell (1995) verify that increasing the success of implementation policies demands leadership in the management of resistance and it is important to map the resistance factors if leadership is to create a new context which will break the hold of the forces of resistance.

Pursuing change and transforming organisations is hard work. The researcher believes that change management initiatives could fail without the guidance of leadership. In other words, implementation of OA policy requires leadership and advocacy. Therefore, the institution's senior managers and librarians must be fully informed of the benefits and limitations of Open Access before they are able to engage in wider consultation about the type and format of implementation and before they finally advocate OA. In addition, senior management must guarantee that all academic staff have a clear vision about the nature of this change. They should understand the full impact of the change, understand the vision of OA initiatives and be clear about anticipated outcomes when practising an OA policy and its on-going refinement and monitoring where needed. Leaders in PAAET, in consultation with the other stakeholders, should develop guidelines for OA policy implementation, which includes development of a set of principles around how people are to be informed in the future. This could involve regular internal staff training sessions, to ensure that staff voices are heard and that concerns are identified and where needed addressed. Thus, the researcher considers that commitment from both management and academic staff to any change developments could be dynamic only with full understanding of the long-term goal and objectives of that change.

6.4.2 Language

Remarkably, competence in English was also an impediment to the current policy and it was emphasised by librarians in the qualitative results. The English language is related to the use of technology in PAAET.

There is a large number of academic staff who lack competence in English. This problem has restricted their use of new systems especially if it was in English. It has also constrained their use of English language materials (Interview 15, 02/08/2012).

Some academic staff do not conduct their own database searching because of the language; and they ask librarians to assist them to do so (Interview 9, 11/08/2011; Interview 12, 07/08/2012).

This problem was unexpected in a HE institute as academic staff hold high-level degree qualifications. However, the same problem was not observed in interviews with senior and middle management, as language was not mentioned in their interviews. This indicates that they may be graduates of foreign universities and have good levels of English, so did not see an obstacle in the potential use of English language systems. It was also implied by faculty interviewees that some academic staff were graduates from Arab HE institutes where their research was written only in the Arabic language. On the other hand, it is possible that higher management were not fully informed about the potential English language skills needs if the publishing process was potentially made in English. This again highlights the important issue of staff consultation which is emerging from this study, and the need to discuss and agree a potential solution.

This study revealed that foreign language is another reason for inadequate policy and it can affect readiness for OA policy implementation; it can also limit the use of an IR if PAAET considers implementing an OA policy. The issue of language was not found in the literature; for example, previous studies such as Pinfield, Gardner and MacColl (2002) have provided a more technical view of an IR implementation but have recognised the major challenges to implementers as managerial and cultural rather than technical. This

again is a contribution to the OA debate which challenges the need for publishing content in an accessible manner. Language is a barrier to accessibility in the context of a developing country such as Kuwait, and potentially in many other countries where English is not a commonly used language. To what extent is something open access if it is publicly available on the Internet but in a foreign language? Although technically the material can be accessed, linguistically it presents another potential obstacle.

The results suggest that competence in English affects policy implementation for those in PAAET; this could also be a factor that hinders readiness for OA policy implementation and its practice. If PAAET is serious about developing a strategy in implementing an OA policy, then the language issues have to be taken into consideration by introducing policies concerning English language capabilities and conducting comprehensive English language courses for academic staff. Alternatively, solutions need to be explored where an Arabic version of a similar system could be developed and implemented. Arguably, this would reduce the impact of the research worldwide since English is increasingly used as the main platform for academic publications. However, with the increasing options of online translation, at least for those who are keen to engage in the dialogue with researchers in PAAET, there will be another opportunity to see what kind of studies are made there.

6.4.3 IT Competence

Qualitative results revealed that continuous training was limited to the associated programs of the current systems, (see also section 6.3.1); therefore, this affects the practice of a policy that uses an automated system. Technology and technological “know-how” were also identified, as they are not yet common amongst academic staff in PAAET. This finding is consistent with those of a study conducted nearly 20 years ago by Abdel-Halim, Ashour (1995), who found that Kuwaiti nationals lacked technical competence. Haneefa’s (2007) study found a connection between electronic information resource use and perceived IT competency. This also can impede readiness for OA policy implementation and practice in PAAET, since OA relies on self-archiving and in many cases presents another technical artefact and a system which needs to be taught and introduced to staff. This requires another set of organisational culture changes, since as those highlighted

below from academics:

There is a lot of demand for the use of databases in PAAET, but unfortunately a large number of members of faculty are not willing to do any searching on their own on the databases, and that is due to the lack of IT skills among some and the lack of time amongst others. Therefore, they demand that we do the searching for them... the lack of an electronic culture among some faculty in PAAET can be a major barrier in for practicing a new policy [which relies on the use of technology] ... (Interview 9, 11/08/2011).

...Facing the lack of awareness of open access benefits and the use of the IR among the academic community will make it difficult to practice an open access policy even after its implementation (Interview 10, 14/08/2011).

The researcher believes that the lack of IT competence among academic staff is due to the lack of timely IT training strategies. Therefore, PAAET should consider establishing such strategies to form a technology education culture within its institution, which will help not only with current challenges faced by librarians but also help staff to achieve personal development and become more self-sufficient when it comes to the use of electronic resources online.

6.5 Organisational resources

It is widely recognised in the literature that user satisfaction is an important influence in accepting technology, as well as in the intention and actual use of such technology (Roca, Chiu and Martinez, 2006). The results of this study revealed several issues in regard to the technological resources (IT infrastructure support and professional support) that could influence the readiness for OA policy implementation in PAAET.

6.5.1 Technological Resources (IT infrastructure and Support)

Qualitative results revealed that PAAET experiences technological problems in general and it was obvious that academic staff were not happy with their current IT infrastructure and IT support in particular.

Some of the senior management assured the researcher that there are great numbers of computers in PAAET, distributed among academic staff to facilitate the use of technology through the Internet and Intranet, and they are supported by full maintenance. Although it was claimed that regular technical maintenance was in place, faculty insisted that the Internet was not being used effectively due to technical problems and because others still did not know how to use the Intranet. This is consistent with Haneefa (2007) and Al-Ansari, (2011), who confirmed in their reports that respondents lacked technical support, a problem which seems to be still unaddressed and of high potential impact on wider competitiveness of academics in PAAET. Additionally, there is a lack of continuous training for academic staff on how to use new systems and associated programs (see also section 6.2.2.3). On the other hand, quantitative results exposed the opposite, as a majority of academic staff in PAAET did not think that technological resources would prevent the implementation of an OA policy; this clearly indicates that they are unaware of the technical element of an OA policy, as illustrated by the quote below:

There are a lot of technical problems that need to be faced before the decision to shift to a new system. The transition without solving the existing problems will transfer these problems and obstacles to the new transition (Interview 7, 30/07/2012).

...We as a library need a lot of IT support and our current situation we don't get enough IT training and service due to the large number of libraries that are in PAAET (Interview 10, 14/08/2011).

It is inconsistent that an institution with high aspirations has not yet developed clear strategies regarding technological resources. It is also ironic that such an institution, which is financed by a wealthy government, has not invested in or even identified the resources needed (human resources, technological infrastructure, capabilities and training investment).

These results suggest that the authorities should be aware of the demands for appropriate technologies that can support OA policy implementation without investing in many sophisticated technologies that could waste money and efforts when implementing initiatives to create an OA culture. It is also clear that some staff in PAAET are not aware of the institution's ICT strategy and infrastructure. In addition, the IT department provides ineffectual support in the use of technology to academic staff within PAAET. To guard against this occurrence, the institution needs to establish a strategic long-term mission/vision; all leaders should be unified in their commitment to achieving this, and their commitment should be sustained to facilitate and encourage long-term OA change. It is therefore essential that PAAET develop a plan that will inform staff about the capabilities and availability of the current technological infrastructure and implement training sessions and regular support in order to ease the implementation of an OA policy, should they want to proceed.

6.5.2 Information Professionals

An organisation must regularly adapt to new technologies because of the short life and new developments in technology, and changes in users' needs. Implementing new hardware and software is not sufficient without development in promoting staff skills and competence in handling technological change. Libraries must look beyond their traditional roles of building collections and subscribing to remote resources. According to Schmidt and colleagues (2005), "Libraries need to think of themselves as mediators between their patrons and the ever-expanding and increasingly complex world of information. With regard to open access resources, libraries can serve their patrons in a number of ways" (Schmidt, Sennyey and Carstens, 2005).

The qualitative results disclosed the level of support from information professionals in PAAET. As interviews with senior management indicated, lack of professional skills in both IT and library science among library staff is an obstacle faced by the Dean of Libraries in meeting the needs of the institution as a whole. Other librarians considered that the previously strong connection with faculty members has weakened with faculty's increasing dependence on the Internet in their work. However, they failed to give a full picture about being able to advocate an OA policy among faculty members. This emphasises the lack of professional development, that impedes readiness for implementing an OA policy in PAAET. Moreover, some middle management indicated that librarians have failed to promote new trends such as OA, and insist on the use of current technology systems by academic staff within PAAET. According to Pinfield (2004b, 2010) information professionals have a leadership role in terms of encouraging cultural change, policy development, and providing systems and service, as supported by the extracts below:

We have very few professionals who are experts in both IT and library science and this is one of the problems that we face as a deanship to full fill the needs of institution as a whole and therefore, it is some how difficult for us to keep up with these new trends in the world of information... (Interview 3, 07/08/2011).

The academic staff should be the first to be informed about OA trend so they can request to implement an OA policy, because professionals are the ones who are responsible to pass on the message of such initiatives to us in order to develop and improve our performance (Interview 8, 07/08/2012)

Information professionals are considered the first people to champion new ideas and trends that are beneficial to the organisation. Meyer (2008) emphasised technical workshops to train professionals in generating and maintaining the IR even before focusing on awareness education and promoting IR. The researcher disagrees with this conception because awareness, training and promotion should be go hand-in-hand before implementation, in order to reach a high level of readiness for implementation and practice of OA. **It can be argued that the lack of IT skills among information professionals (librarians) is due to the lack of IT and professional development training programmes. Therefore,**

continuous professional development programmes should be proposed on a continuing basis for such professionals.

6.6 Organisational Structure

Organisational structure is the basis for operating standard procedures and routines. It determines which individuals participate in which decision-making processes, and thus to what extent their views shape the organisation's actions.

The higher education institutes are integrated with the applied education sector in PAAET but all of these institutes and colleges are built separately in different locations; in other words, they are segregated and have separate campuses for males and females (Al-Ansari, 1992 cited in Al Fadhli and Johnson, 2006, p.10). Therefore, geographical location is considered complex and unique from other commonly known higher education institutes. Male and female students are located in different campuses and every college, institute and library is duplicated (Male/ Female collages and libraries); this has led to the same department's academic staff to be separated physically (different locations). Therefore, it is difficult to reach each other, as there is no recognised process to link them together in order to reduce this problem. The physical separation of colleges for males and females is a main reason for the lack of interaction between the sexes and influences the cooperative activities among researchers. Therefore, the issue of segregation raises some concerns about the time and efforts that will be needed to spread the awareness of OA initiatives in PAAET. This factor may slow the process of interaction between researchers in PAAET if there will be cooperative publishing through OA and for future OA policy practice among the sexes.

6.6.1 Gender Segregation

Previous researchers studying technology in the Arab world may not have fully considered some of the unique social inferences of Arabic culture (Fandy, 2000; Zakaria, Stanton and Sarkar-Barney, 2003).

Qualitative results clarified that segregation is a state regulation, but suggested that many individuals did not see them as a major barrier to implementation of new policies,

especially to those that involve a new system. Nevertheless, it would be more convenient for some staff to refuse to interact with members of the opposite sex for social reasons. “Cultures with very strong traditions require clear signals about the commitment of leadership to avoid a crisis [...] in the change initiative” (Bait-Elmal, 2000). Furthermore, one interviewee believed that segregation was good as it confirmed Kuwaiti tradition, culture and religious beliefs.

This finding is unique, as it has not been reported in previous studies on OA. There are certain issues that concern senior managers in PAAET, in terms of looking for alternatives to segregation when implementing OA initiatives, especially since there are difficulties in terms of movement to other buildings located in different areas. The findings concerning segregation also indicate that the different locations of colleges and departments may influence future OA practices and processes in PAAET.

It will be inconvenient to have IT staff to go around colleges to fulfill the demands of technical support of a new system as we are facing such problems right now (Interview 10, 14/08/2011).

I think that the different locations of our buildings for male and female colleges would slow the process of the practice of OA policy (Interview 11, 17/08/2011).

This physical barrier could be a concern for senior management in trying to resolve implementation problems in PAAET. According to middle management, conducting seminars and training sessions is a segregation issue that can be considered as a delaying factor in PAAET

Conducting seminars and sessions to give the academic community a clear vision of the policy and how it could influence positively on the institution as whole is great!!... But because of the segregation many cultural issues should be taken into consideration first; not all academics are assured to attend, therefore, it is not easy in PAAET to get all academic staff to participate and attend these sessions (Interview 7, 30/07/2012).

Therefore, the researcher thinks that the authorities at PAAET will face some problems with this issue in terms of finding appropriate techniques that are suitable to the preferences and skills of academic staff; the factor of segregation cannot be ignored, and alternative solutions that can go around it must be found.

6.6.2 OA Society

Qualitative results determined the appropriate society (colleges or institutes) that could practice and contribute to an OA policy and implementation. It was made clear in the interviews with senior management that an OA policy cannot be applied to all colleges and institutions in PAAET, due to the different academic levels of staff. Academic members in the applied colleges are research active, unlike the members in the training institutes. Therefore, the interviewees felt that academic members in the applied education colleges are more appropriate to practice and contribute to OA policy if implemented. It was also indicated that there is a need for overall change to PAAET's organisational structure. This finding is consistent with those of Organ and Mandl (2007) and Drake (1993) who argued that academic institutions began to restructure their organizational structures to become more efficient, productive, and service-oriented. Al-Ansari (1999, p.136) noted an Advisory Committee report of 1994 which suggested reviewing the existing organisational structure and recommending an alternative structure that would meet the changing needs of the library system; this is supported by the following extracts:

PAAET can not apply this kind of policy to all of the colleges and institutes as there are different academic levels among its staff members, therefore, the applied education should be separated from the training and this kind of system can be practiced only by the Applied Education colleges (Interview 1, 27/07/2011).

It would be easier practiced by the scientific colleges Such as The college of Nursing and Health Sciences, and the college of Basic Education...they have more research

activity than other colleges. (Interviews 2, 27/07/2010; Interview 3, 07/08/2011).

Results unveiled another point, that senior management specified that an OA policy would be easier to apply in scientific colleges and social studies, as most of the faculty members are research oriented. Some librarians suggested that all colleges and institutes should practice OA, and this was expressed very clearly. Faculty supported the application of a voluntary OA policy and believed that the choice of practice should be open for faculty members.

From the interviews, it can be argued that an OA policy cannot be applied to all colleges and institutes in PAAET, due to the different levels of academic qualifications among faculty members (not all faculty members are research active). Therefore, the researcher feels that the five Applied Education colleges in PAAET could practise OA. In order to support this change, the researcher also suggests that the organisational structure of PAAET should be modified; PAAET’s leadership should review the institutional structure in order to focus on the appropriate policy for an OA community.

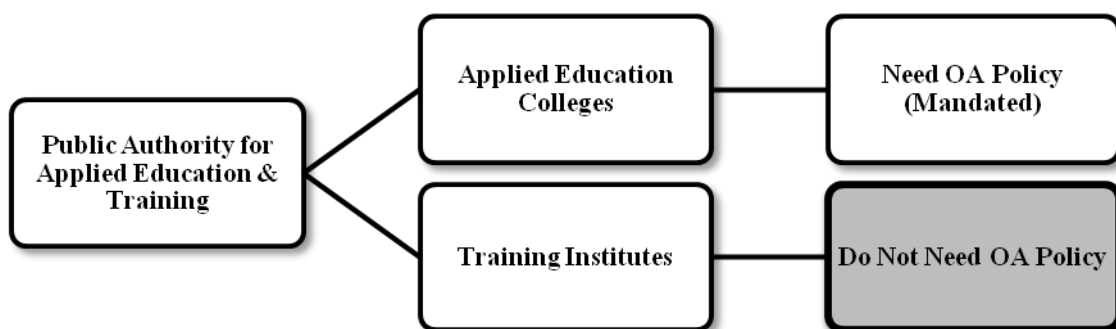


Figure 4: OA Policy need in PAAET colleges and institutes

6.7 Organisational Culture

The influence of institutional culture is explored in relation to readiness for the implementation of an OA policy, with sub-factors emerging: bureaucracy and favoritism or *wasta*. According to Information Systems literature, many researchers (Abdul Rashid et al., 2004; Chai and Pavlou, 2004; Davison, 1996; Fey and Denison, 2003; Frotaine and Richardson, 2003) agree that organisational culture is a controlling influence in accepting and adopting an information system. Cultural challenges were explored in relation to the implementation of OA, and bureaucracy and *wasta* were uncovered as sub-factors.

6.7.1 Bureaucracy

The qualitative results revealed that management believed that bureaucracy is very common in PAAET's organisational culture, as it is experienced in day-to-day life; it slows down processes and development especially if they are new, and this can be related to resistance to change (discussed in section 6.2.2.1). This finding is consistent with those of Al-Alawi, Al-Marzooqi and Mohammed (2007) who reported that most managers realise the disadvantages of bureaucratic arrangements in slowing processes and raising restrictions on information flow. In addition, such procedures often devour a great amount of time.

It was also implied by middle management that bureaucracy puts many obstacles in the way of improvement, especially if it requires financial commitment; this is also related to government influence (discussed in section 6.2.2), given the fact that PAAET is funded by the government, an influence on organisational culture and a factor that impedes readiness for OA policy implementation. Other faculty indicated that, despite the existence of rules and regulations for developing and implementing policies, nothing actually happens quickly. Librarians agreed that the existence of bureaucracy in their institution made developments and activities very difficult, would be unsurprised if it affected policy implementation.

PAAET is like any academic institution in Kuwait, we are

controlled by bureaucracy and any development takes double the time due to this... (Interview 10, 14/08/2011).

...Our developments depend on old management implications, therefore, I wouldn't be surprised if it could slow down a policy implementation (Interview 11, 29/07/2012).

These results identify bureaucracy as a factor that can influence the readiness of OA policy implementation in PAAET; it is mostly related to government authority through its processes and regulations. Therefore, the researcher thinks that it is important for the government to support the OA trend through funding in order for it not to fall foul of organisational bureaucratic procedures.

6.7.2 Favouritism or *Wasta*

In the Arab world, the influence and power that individuals enjoy in social settings is usually conveyed into organisational settings (Tlaiss and Kauser, 2011). According to Sawalha (2002, cited in Hutchings and Weir, 2006, p.151) *wasta* pervades the culture of all Arab countries and is a force in decision making. According to the qualitative results, middle management specified that most developments and policy implementations depend on *wasta*, which help speed up the implementation of a policy, as indicated by the following quotation:

*...it all depends on who is in charge and his/her position in order to see fast developments and smooth policy implementation; as all these depend on *wasta* the relation with senior management in PAAET (Interview 8, 07/08/2012).*

This is consistent with In addition to Tlaiss and Kauser's (2011) study which revealed that many of the respondents especially at middle and senior management levels were likely to have used *wasta* in their organisation. Librarians also indicated that the responsibility for

developing or implementing a policy is appointed according to *wasta* and the social relationships with top management in the institution. *Wasta* has a considerable role in the decision-making process, according to Weir (2003), Hutchings and Weir (2006), Metcalfe (2006) and Tlaiss and Kauser (2011). Whiteoak *et al.* (2006, cited in Tlaiss and Kauser, 2011, p.470) specified that *wasta* is crucial for understanding how decisions are made in this region because it permeates the culture of all Arab countries and is a force in every significant decision.

It is clear from the above that there is indeed a lack of standards specified for the development and implementation of policy, but that these standards are not generally applied, as a result of the current Kuwaiti organisational culture in which personal relationships are allowed to intervene in matters of policy implementation. In addition, with regard to implementing an OA policy based on the establishment of an electronic IR, Al-Awadhi and Morris (2009) stated that participants thought it would be difficult to limit *wasta* in government work, even if such work is electronic, because they considered it to be part of their culture. “*Wasta* in our society will be used in everything, even if it is electronic” (Al-Awadhi and Morris, 2009, p. 588).

Therefore it is in the researcher’s opinion that PAAET should begin to facilitate changes in the institution’s culture and to create a healthy work environments where those who do not have access to *wasta* do not feel that the top management are favouring others. Therefore, senior management should set up policies that reduce preferential treatment based on *wasta* within PAAET.

6.8 Organisational Tensions

The results of this study revealed different aspects of organisational tension and how they can affect the readiness for implementing an OA policy in PAAET. Emerging sub-factors were uncovered in terms of organisational tensions: interdepartmental collaboration, and budgets and funding.

6.8.1 Interdepartmental Collaboration

The issue of interdepartmental collaboration between managers was raised in a majority of interviews; higher management emphasised the need to determine who would take over the responsibility for OA policy implementation, proceedings and initiatives. They are currently facing disagreement between departments (Research Department and the Deanship of Libraries) in terms of tasks that involve librarians rather than regular staff members. According to Lynch and Lippincott (2005), 80% of institutions responded that the library should have administrative responsibility for the IR, and around 60% indicated that the library should have sole responsibility for setting its policy. It was also implied by senior management that lack of cooperation among the directors of departments causes tensions, and projects are slower especially when it comes to the leadership of new projects.

As for archiving the outcomes of faculty members this is within the authority of the research department but in general there was some discussions that it should be handed over to the deanship of libraries (Interview 2, 27/07/2011).

Lack of cooperation between the directors of departments... some directors refuse to hand over tasks or involve decision making to a more appropriate department in fear of losing recognition by PAAET's top management...this is considered a major tension in our institution (Interview 4, 09/08/2011).

Results reveal that senior management's interaction with departments does not influence collaboration and communication between departments. Obviously, standards and priorities are not clear between the Department of Research and the Deanship of Libraries in determining who will take over responsibility for the submitted research, / the task of entering meta-data into PAAET's system and managing public access. Therefore, the researcher feels that encouraging collaboration and communication between departments must be taken seriously; most

importantly, allocating responsibility for specific tasks must be prioritised by the top management in the best interests of the institution.

6.8.2 Budgets and Funding

Budgets were an issue raised by most interviewees. Higher management insisted that funding is a critical issue, due to the annual reduction in PAAET's overall budget by the Ministry of Finance; this forces the Finance Department to cut down the library budget. Librarians also pointed out that the main tension is related to convincing PAAET's Finance Department about the importance of the OA policy, in order to request more funds. Not surprisingly, these demands to the Ministry of Finance to raise PAAET's annual funding go through slow bureaucratic means of communication (discussed earlier in sections 6.2.2 and 6.5.1), and ultimately they may or may not be granted. Different interviewees had different responses to this issue. Some highlighted the fact that the implementation of a policy was not usually easy, and would only occur after some delay caused by bureaucracy; other interviewees agreed that any suggestions requiring a financial commitment would not be readily agreed to, or may not even be considered at all (discussed earlier in section 6.5.1).

Pinfield (2010) insists that research funders are in a good position to originate developments by setting strong policies to support greater access and then setting up enabling systems to ensure their policies are implemented. She also suggests that institutional funding should be moved from the library budget to a separate OA fund.

Quantitative analysis revealed that participants were aware of the financial barriers that their institution is facing. Academic staff had almost the same responses towards the financial issues as to institutional tension in PAAET; OA could help PAAET reduce costs. 56% of the respondents were positive that the Finance Department would provide more research funds when OA is practised in PAAET. However, when further analysis was conducted to ensure that the level of readiness for depositing funded research in PAAET's IR would occur before the implementation of OA, the responses were negative, the majority disagreeing or being neutral on the issue of depositing only funded research in PAAET's IR. This also indicates that a straightforward mandated policy for PAAET colleges simultaneously will not be successful; a mandated policy should spread from

department to department, as discussed in section 6.2.3. In order to overcome the difficulties with funding an OA policy leading towards depositing research in PAAET's IR, those in decision-making positions should view this funding as a long-term economic investment, which will help the developmental needs of PAAET.

Therefore, it is important for PAAET's higher management to initiate negotiations with the Ministry of Finance to assign an independent budget and convince them that Kuwaiti HE institutes would benefit from long-term cost reduction with the implementation of an OA policy.

Hereafter, the necessary funds should be made available to the Research Department so that they are able to meet what is required of them. In the researcher's point view, PAAET should request the Ministry of Finance to make the Research Department financially independent (separate from PAAET's overall budget) and therefore able to set its own budget and allocate funds appropriately among colleges and in a timely fashion. The Research Department should be allowed to coordinate its work with private academic and research institutions, in exchange for financial benefits and support; this would be put towards funding future coordinated research projects, such as being a part of "Tempus".

6.9 Overcoming Challenges

It was necessary to explore the challenges from the point of view of the academic staff members, especially how to overcome the cultural challenges in PAAET. Some senior managers focused on the institutional structure; in order to be ready for the implementation of an OA policy there should be major change to PAAET's hierarchy, separating the applied education from the training colleges, as discussed in section 6.4.1.

Most importantly is that the overall institutional hierarchy should change by separating the applied education from the training in PAAET (Interview 1, 27/07/2011).

Other senior managers revealed that individual or group training sessions should be a priority before implementing any policy. Accordingly, seminars, workshops and training

sessions should be offered by PAAET in order to raise awareness and promote a clear vision of new information trends in general; and to promote OA policy initiatives and their potential influence on PAAET as a whole (as discussed in section 6.3.2).

Academic staff expressed their opinion positively in the quantitative results by acknowledging the need for PAAET's higher management to put more effort into spreading OA awareness in their institution. The higher management and library can play an important role as facilitators and promoters of OA workshops and training sessions and programmes.

The researcher's opinion, overcoming challenges can be achieved through greater efforts in appropriate strategies; and by promoting a culture that encourages OA within PAAET before establishing an OA policy within the organisation.

6.10 Reasons for declining to respond to some questions

It came to the attention of the researcher that 14 interviewees declined to answer questions about government influence, which raised the interesting questions of why, and who were those participants who refused to answer some questions? It was clear to the researcher that two topics were declined to be answered by faculty (on government influence, section 6.2.2, and organisational structure, section 6.4) and this reveals that faculty members lack readiness to implement OA policy; moreover, they are resistant to change more than any other academic staff members in PAAET. The possible reasons for this resistance are:

1. Little awareness of OA and its initiatives.
2. They would be compelled to practise an OA policy by self-archiving and depositing their research in IR, if the policy is mandatory.
3. They feel insecure about depositing research online.
4. They support the application of a voluntary OA policy.

In terms of declining to answer the questions on government intervention in policy

implementation, it appears that some respondents' understanding of government interference is only related to political activities; to others it might be related to not being involved by management in PAAET's policy implementation process (section 6.2.1).

6.11 Summary

This chapter discusses the main findings from the interviews and questionnaires and considers their propositions in terms of the main participants that will be involved in OA implementation in PAAET. Many issues have been highlighted that influence the readiness of PAAET for OA policy implementation, and which might, therefore, be countersigned in other similar organisations in Kuwait. From evidence gained from the qualitative and quantitative analyses and from the literature, clear facts emerge concerning the importance of the benefits of and readiness for OA and an OA policy in PAAET, as it would improve academic performance, save money and lead to the institute gaining recognition among the international academic community in the long term.

However, in terms of implementing an OA policy at PAAET, this is still in its early stages, as awareness and readiness levels are considered to be very low. Therefore, the authorities need to pay attention to the issues that were raised in order to accomplish their goals. It can be concluded that there are organisational and cultural factors that impede readiness for implementing an OA policy in PAAET, such as the organisational culture and challenges; this includes management's leadership, policy considerations, and professional and technological resources. PAAET should move seriously towards increasing awareness levels and find new strategies within the institution in order to move towards implementing an OA policy, to keep abreast of the OA trend and to gain institutional recognition.

On a theoretical level, TORC was found useful for structuring the discussion of readiness for policy implementation; however, given the exploratory nature of this case study, several new themes and issues emerged which were not envisaged in the initial stages of TORC. This understanding of TORC's use has been advanced in the OA context.

The final chapter will draw the thesis to a close, by reviewing the contribution made by the research and presenting the main concerns, conclusions and recommendations for the authorities at PAAET and for future research in this field.

Chapter Seven Conclusions and Recommendations

7.0 Introduction

This final chapter presents the main conclusions of this exploratory case study in relation to the aim, objectives and questions of the research. Contributions to knowledge are highlighted, and contributions to practice are made. Practical recommendations are also made concerning the readiness for implementation of an OA policy in PAAET. Finally, suggestions for further research and the research's limitations are presented.

The research's focus was to explore the factors that affect readiness for implementation of an OA policy within a Kuwaiti HE institution. Exploring the current situation in regard to perceptions, policy processes, organisational resources, organisational culture and organisational tensions was tailored, according to TORC, for PAAET's main stakeholders (higher management, faculty members, librarians and academic staff). It was important to identify those factors that can affect the readiness as this will help in identifying problems that needed to be solved. It was aimed to introduce OA initiatives in order to help in developing an affective OA culture for PAAET, and this could lead the institution to implement an OA policy and achieve better performance to meet the expectations and plans of the Kuwaiti government.

Finally, the researcher's philosophic stance is interpretive, evaluated and justified following the principles suggested by Klein and Myers (1999).

7.1 Achieving the Aim and Objectives of the Study

The aim of this research was *to explore the perception towards Open Access and identify the factors that influence the readiness for Open Access Policy implementation in Kuwaiti Higher Education Institution / PAAET*. The aim has been achieved by addressing the research objectives as follows:

The first objective was *to review the related literature on OA and OA policy to establish a theoretical research framework*, that is, critically review the relevant literature on OA implementation within the Higher Education sector. This objective was achieved, as detailed in Chapter 2. This understanding evolved from the researchers' experience and theories about the subject, and the related empirical studies. The literature review also covered change management topics with a special focus on the HE context. Most of the literature related to OA originated in or referred to developed countries, and only a few studies were reported from developing countries. The themes from the literature, and in particular TORC, informed the development of the primary data collection tools as well as knowledge of the organisational context in Kuwait (Chapter 3).

The second objective was *to explore the perception of Kuwaiti Higher Education institution / PAAET stakeholders towards OA*. The purpose was to guide the researcher in conducting the empirical study and data collection. To meet this objective a number of OA policy standards and readiness factors were identified from the earlier literature review and primary data collected at PAAET using a triangulation of a questionnaire and interviews. An analysis (Chapter 5) and discussion (Chapter 6) of the perceptions was presented.

The third objective was *to identify the factors that affect the readiness of OA policy implementation in Kuwaiti Higher Education institution / PAAET*. Interviews and questionnaires were carried out to gain an in-depth understanding of the factors affecting readiness for OA implementation within the institution. To meet this objective, four contextual factors were identified from TORC; see Chapter 6. The current study applied TORC in the new setting of an OA policy in HE in a developing country, contributing to knowledge one new factor: organizational tensions; and fourteen sub-factors: management

encouragement for policy implementation, government influence, type of open policy, resisting change, language, IT competence, technological resources, information professionals, gender segregation, OA society, bureaucracy, favoritism or *wasta*, interdepartmental collaboration, and budgets and funding.

The methods of data collection were chosen and discussed in Chapter 4: triangulation of data collection at the tool level of semi-structured interviews and a self-administered questionnaire. It should be mentioned that meeting this objective was highly dependent upon the first objective having been accomplished. The findings from the case study institute (PAAET) were compared with the literature to check whether the knowledge already established in the literature applied to the current setting; see discussion Chapter 6.

The fourth objective was to *provide recommendations to Kuwaiti Higher Education institution / PAAET to establish effective OA policy implementation*. For a successful and effective implementation, senior management must play a major role with strategic steps to engage all stakeholders in consultation and identifying the long-term shared objectives of creating an OA culture, as discussed in Chapters 5 and 6. Following insights from the change management literature on OA policy implementation in developed countries (Chapter 3), the current study identified similarities with a number of characteristics, such as the need for staff commitment. Additional factors identified in Chapters 5 and 6 had been highlighted in developing countries in studies conducted decades ago, but the current study confirmed that the same challenges persist – such as English language skills, IT skills and IT infrastructure resources. Staff who would take a central role in practising and sustaining an OA culture will need to be involved at all stages, and this study has carried out the first consultation of what the impact of change will mean. However, when considering the long-term advantage of creating an OA culture in PAAET, not all issues regarding the organisational and Kuwaiti national culture can be readily overcome. The only realistic approach in starting to create successful initiatives is to set up balanced strategic planning involving people and a technological OA approach among the main stakeholders (management, faculty members, librarians and academic staff). It is also worth noting that Kuwaiti organisational culture is distinctive, as highlighted in Chapter 6, and this should not be ignored in the implementation of an OA policy; for example, issues of *wasta*, gender segregation and bureaucracy were identified as potential problems.

7.2 Answers to Research Questions

The first question presented was *What are the perceptions of stakeholders in respect of OA in PAAET/Kuwait?* and in this connection, many OA initiatives and challenges were identified from the literature (Chapter 3), and subsequently investigated within the exploratory case study institution. The outcomes of these empirical investigations revealed many issues related to the factors that affect readiness for OA implementation (Chapters 5 and 6).

The second question presented was *What are the factors that affect readiness for OA policy implementation?*, and again, the factors identified from the literature and using TORC as a foundation for the study were investigated within the selected case study organisation; contributions to knowledge are made in Chapter 6.

The third question presented was *How do these factors affect readiness for OA implementation in Kuwaiti higher education / PAAET?*. Again, the factors identified from the literature were investigated within the selected case study organisation, and several issues emerged that seem to be peculiar to the Kuwaiti organisational context, and hence require special attention in order to ensure the successful implementation of OA policy. These were analysed in Chapter 5 and discussed in relation to prior studies in Chapter 6.

The fourth question presented was *Why do these factors affect the readiness for OA policy implementation in a Kuwaiti Higher Education Institute?* The overall results of this study explained why the identified factors were evident within the case study organisation; it was demonstrated by the empirical analysis (Chapter 5) that several key elements are the outcome of the Kuwaiti HE organisational context.

7.3 Contributions to Knowledge

Open access policy, an important element of scholarly publication in academic institutions and libraries, has attracted serious research in recent years and is relatively well understood within the academic communities of developed countries. However, within a Middle Eastern academic community, OA and OA policy are less well understood, and in some

developing countries including Kuwait have not been researched at all. The literature review revealed that no research on OA policy has been conducted within Kuwaiti academic institutions. Despite this, the academic community is becoming increasingly important for the long-term sustainability of the region. This research is the first attempt to explore the main issues that exist in this area, such as addressing organisational and national cultural issues that will affect OA policy implementation. This study has explored and provided background insight into how a Kuwaiti HE institution is addressing these issues. The following four main contributions to knowledge are the deliverables of the current exploratory case study:

7.3.1 Understanding of IT adoption in Kuwaiti HE

This study has made a significant contribution to the body of work on information systems within a particular context. It also provides contextual and situational insight into how a higher education institution in a country with a different background is dealing with understanding OA initiatives and their readiness for OA policy implementation, which has not been previously discussed. The main findings of this research also contribute to the body of knowledge concerning OA policy in higher education, by using PAAET as a case study. The study identifies theoretical steps in dealing with the distinctive Kuwaiti HE organisational culture which influences readiness for OA policy implementation and offers a direct guide and appropriate strategies that fit the PAAET environment. **The theoretical contribution is that the change management theories for IT adoption, which have been established and are used in developed countries.** Although it is the current culture, **this study also highlighted that staff, like those in developed countries, are interested in policy development and consultation and were found to be able to contribute insightful comments which can help an organisation to refine and customise its thinking on IT adoption policy and implementation.** Moreover, **this study provides fresh evidence which confirms knowledge established several decades ago about Kuwait, in particular about academics at HE institutions and their lagging behind the developed countries in IT literacy and IT infrastructure. These core ingredients for successful adoption of any new IT system will pose great challenges since, as in the case of OA which relies on self-archiving, there is a longer journey to be travelled when such systems are introduced at the organisational level.**

7.3.2. Adoption of OA in developing countries

This study makes a contribution to the literature on the readiness for OA adoption in the context of developing country. **It provides rich exploratory insights into the perceptions and potential challenges faced by organisations in developing countries when it comes to OA adoption.** The lack of rich empirical studies of OA outside the developed countries is a problem, given the increasing of awareness of the importance of OA around the world. This research has several important implications for the OA literature. In terms of theoretical contributions, it has extended previous studies and research conducted mostly in developed countries and provides great potential by advancing the OA literature with a better understanding of the factors affecting the readiness for implementing OA within the context of Kuwaiti Higher Education. **The contribution is that similar open access adoption challenges to those in developed countries are present in developing countries, such as staff willingness to be involved in an open access culture, misunderstandings about OA, its benefits and drawbacks. However, additional organisational cultural issues exist: a poor change management culture, staff disengagement in policy implementation, language barriers and IT skills barriers.**

This study highlights the areas that could be explored in further research, and presents suggestions that were developed from the research findings for OA experts, change management researchers and policy makers. The factors identified in this research could be used by researchers interested in investigating the factors affecting readiness for change in implementing a policy in other organisations with similar organisational and cultural settings; in other words, these factors will help focus on weaknesses and improve areas for successful implementation. Concurrently, the factors identified in this research can be used as a guide for HE institutes to take the necessary steps to improve current management practices and remove organisational weaknesses.

7.3.3 Use of TORC in the Open Access research area

From the point of view of its contribution to theory, this thesis makes a significant contribution to the body of work on TORC, the theory of organisational readiness for change (Weiner, 2009), within a particular institutional cultural context (Kuwaiti Higher

Education). It provides a realistic step that deals with the unique Kuwaiti HE concept that influences the readiness for OA policy implementation and offers a direct guide and appropriate strategies that fit the PAAET environment. This research has confirmed certain factors and identified additional ones to those identified in the literature. A total of fourteen sub-factors, under six contextual factors, only five of which are adopted from TORC, were identified in this study. These factors with an indication of original contribution are:

- I. Policies and Procedures (TORC existing factor)
 1. **Management encouragement for policy implementation (NEW sub-factor)**
 2. **Government influence (NEW sub-factor)**
 3. **Type of open policy (NEW sub-factor)**

- II. Past experience (TORC existing factor)
 4. **Resisting Change (NEW sub-factor)**
 5. **Language (NEW sub-factor)**
 6. **IT Competence (NEW sub-factor)**

- III. Organisational resources (TORC existing factor)
 7. **Technological resources (NEW sub-factor)**
 8. **Information professionals (NEW sub-factor)**

- IV. Organisational structure (TORC existing factor)
 9. **Gender Segregation (NEW sub-factor)**
 10. **Open Access Society (New sub-factor)**

- V. Organisational culture (TORC existing factor)
 11. **Bureaucracy (NEW sub-factor)**
 12. **Favoritism or *wasta* (NEW sub-factor)**

- VI. **Organisational tensions (NEW FACTOR)**
 13. **Interdepartmental collaboration (NEW sub-factor)**
 14. **Budget and funding (NEW sub-factor)**

Some of the literature on OA policy in higher education tends to emphasise the implementation/development of policy that is closer to a technical and applied approach. **This work has: a) supported five contextual factors identified by TORC; b) proposed a new factor not previously identified by TORC (Organisational tensions); and c) studied in great detail each of TORC's factors and proposed the 14 sub-factors which are specific to Higher Education institutions in the context of Kuwait. Therefore, a US health sector theory TORC is applicable to Kuwaiti Higher Education Institute into identifying the factors that affect the readiness of Open Access policy implementation. This is the first time that it has been applied in any study in the world.**

7.3.4 Exploratory case study of OA policy readiness in a developing country

Another contribution of this study is that it discusses the readiness for OA policy implementation in a HE setting in an Arabian Gulf state. Some of the main findings that show weakness for readiness and will influence OA implementation are organisational and national culture (bureaucracy, *wasta* and gender segregation). The findings can extend our knowledge of how authority issues, in the shape of national cultural characteristics, influence the readiness of an institution to implement an OA policy in a particular context. **The main findings of this research also contribute to the body of knowledge concerning the readiness for open access policy implementation in higher education by using PAAET as an exploratory case study.** The research provides an in-depth analysis of a HE institution (PAAET) in terms of the influence of numerous organisational factors in Kuwait. This could help the six nations of the countries in the Gulf Cooperation Council (GCC), which have a similar distinctive institutional structure, to address these issues in further research in the field of information systems and in creating policy for an OA community. This research offers an opportunity to other academic institutions, such as the Western academic community, to understand how the Arab academic community (and especially Kuwaiti academic institutions) influences the implementation of an OA policy.

7.4 Contribution to Practice

Understanding the factors affecting the readiness for OA policy implementation can help academic institutions to develop an effective approach to changing current understanding that inhibits OA initiatives. Investigation of these factors will help academic institutions to identify weaknesses in academic staff and senior management practices and offer possible solutions for OA policy practice. The results of this study can also be used by senior management to implement OA policy and thus obtain the necessary resources to achieve successful OA implementation. In addition, the list of factors identified in this research can be used as an important guide for academic institutions to inform their development of OA policy implementations. Regarding Kuwait's public HE authorities (PAAET), this research could be of help in informing them of the significance of OA's advantages and of the need to develop a policy for the improvement of future performance of the institution.

According to the findings of this research, there PAAET has no clear plan to educate and make the academic staff more aware of OA; this implies that it is still does not fully recognise the strategic necessity for making academic staff's knowledge available through OA. However the Hawthorne affect was clearly witnessed in participants, as most changed their perceptions of OA during the interviews and several were intrigued of find out more about this work.

The following recommendations address all the main practical factors identified in this case study.

7.4.1 Promoting awareness

Lack of awareness and misunderstandings about OA: some academic staff believed OA is an information process and a form of publication that may threaten their research. Therefore, it is important to promote awareness of the advantages of OA practice and policy to the academic community, as both individual and organisational benefits could motivate academics to take further steps in implementing OA policy. It was identified from the literature review that increasing awareness is an important initiative to achieve

successful OA in academic institutions (Lin, Xiwen and Xiaolin, 2009; Zhang, 2007; Swan, 2006; Kirsop and Chan, 2005; Pinfield, 2004b, 2005; Antelman, 2004; Harnad and Brody, 2004; Suber, 2004; Lawrence, 2001b). The fact that OA promotes the recognition of academic knowledge and therefore benefits individual staff, the organisation and the country needs to be emphasised. **Therefore, PAAET needs to establish strategies to raise awareness of OA among its academic community. This could be achieved in different ways (e.g. organising seminars, OA conferences, training sessions, putting up posters, postings on the PAAET website and magazine, and arranging an “Open Access awareness month” for promoting OA thinking across different locations).**

7.4.2 Senior Management’s encouragement for policy implementation

This research revealed that one of the factors affecting readiness for implementing an OA policy is the unstable situation of management support for the involvement of academic staff in policy processes. Management should actively involve and communicate with academic staff in order to progress and achieve readiness for OA policy implementation. Additional outcomes from this research revealed that senior management need to encourage academic staff and professional services staff such as librarians to become involved in policy implementation in teams from different levels (e.g. management, faculty and employees). The selection of academic team members should always be based on qualifications and competence for specific roles, and not on personal relationships – the issue of *wasta* is playing a major role in slowing down the advancement of PAAET. *Wasta* is also reducing the engagement of all staff at policy-level decision making. **In general, without appropriate leadership, OA policy implementation will not succeed; only dynamic leadership can create the commitment to achieve readiness. Therefore, it is recommended to create partnerships and coordination between senior management, Deanship of Libraries, the Research Department and colleges to achieve efficient OA policy implementation.**

7.4.3 Government Support

This research revealed that the national government plays a crucial role in achieving readiness for OA implementation through its instructions, funding and authority. It was

identified from the literature that government and research funders play an important part in policy making in respect of OA, especially in HE institutions. In other words, the government is spending public money and should ensure that the results of their funding are disseminated as widely as possible and used by all who can benefit from them (Swan, 2005; Pinfield, 2006, 2010; Harnad, 2001). In addition, the government should acknowledge that through its instructions it could speed the process of OA implementation to avoid bureaucratic arrangements slowing down the process.

Hence, the researcher suggests that the government should attempt to create a fund for research projects by making it mandatory for all academic institutions to contribute a certain percentage of their budget to support OA trends. The researcher also suggests that PAAET should request the Ministry of Finance to provide financial independence for the PAAET's Research Department, enabling it to set its own budget and allocate funds appropriately among colleges and in a timely fashion. The Research Department should be allowed to coordinate with private academic and research institutions, for example, by allowing PAAET researchers to coordinate with other institutions in exchange for financial benefits and support, which could be put towards funding future coordinated research projects. PAAET should consider joining Tempus (<http://eacea.ec.europa.eu/tempus/>) to help it coordinate with other academic institutions through Open Innovation projects; Tempus is the gateway to the development of higher education in the partner countries of Eastern Europe, Central Asia and the Mediterranean region, mainly through university cooperation projects.

7.4.4 Mandating an Open Access Policy

Research results revealed that according to PAAET's regulations the institution does not support implementation of voluntary policies. In any case, a mandatory OA policy is more suitable for PAAET because, firstly, the institution grants funds to researchers and by mandating the OA policy they will be obliged to deposit their work in the IR. Secondly, the Ministry of Finance is unlikely to fund any type of system implementation unless the policy is mandatory and within the institute. However, working towards a mandatory policy gradually within the institution will give more time for spreading awareness

throughout the institution and for academic staff to recognise the importance of OA.

Overall, the policy should reflect the institution's commitment to open access, the management of researchers' results. There is a need to establish the standards of a mandated policy (e.g. type of material and time of submission that should be deposited in the IR; agreement with PAAET for transferring copyright). In order to develop a realistic strategy for the implementation of an OA policy the UK Open Access Implementation Group's guidelines at <http://www.rsp.ac.uk> can be used to investigate different options and types of OA policy before implementation.

7.4.5 Implementing and Developing Technological Systems, Maintenance and Training

It is widely recognised in the literature that user satisfaction is an important driver in the acceptance of technology, as well as in the intention and actual use of such technology (Roca, Chiu and Martinez, 2006). The results of this study revealed several issues that could influence the readiness for OA policy implementation in the HE sector (PAAET). The OA literature emphasised the importance of technology foundations (IT skills and IT maintenance) as a facilitator to successful OA policy implementation, and the use of an institutional repository in an academic institution.

The current geographic structure of PAAET does not encourage promotion of OA as the locations are scattered because of the segregation law; this has implications for OA development. However, technology can solve the problem of separation between academic locations, and issues related to the awareness of the academic staff of the availability of such systems should be a priority; training should be provided about the proposed system by the Deanship of Libraries (the OA Team) to ensure the operative use of such technology (IR). Continuous maintenance of the technology, according to a specified strategy, is also needed in order to ensure that such systems run efficiently.

It is well known that information professionals provide support for the functioning and practice of new systems policies implemented in the institution. Consequently, it is essential that the Deanship of Libraries at PAAET address the deficiency of library staff

training in their continuing education programmes in the field of ICT and OA. Continuous professional development programmes (both on-site and online) should be offered on a continuing basis to professionals (Librarians & OA Team) and support staff (IT staff).

Senior management needs to certify that staff and resources are made available to promote and support OA policy implementation. In particular, the librarians (OA advocates) need to be trained and educated for effective leadership in the OA project. The institution needs to establish a strategic long-term vision, with all leaders unified in their commitment to achieving OA, and to sustaining and encouraging long-term OA change. Moreover, PAAET should link their website to “The Create Change Organization” www.createchange.org established by SPARC, the Association of College and Research Libraries, and the Association of Research Libraries, to refer librarians and administrators to ways in which to benefit from their tools through the steps of OA advocacy programmes. PAAET should also consider encouraging researchers and authors to create tools such as Google scholar accounts, and making their research publication profiles public in order to track citations of their publications. It is consequently essential that PAAET develop a plan that will inform staff about the capabilities and availability of the current technological infrastructure in order to ease the implementation of an OA policy.

7.4.6 Restructuring the Organisation

The research revealed that it is not reasonable to implement an OA policy to all colleges and institutes in PAAET, due to the different levels of academic qualifications among academic faculty members. This might involve reforming PAAET’s institutional hierarchy by identifying the appropriate academic community that will practice, or considering the separation of Applied Education from Training in order to maintain an efficient future OA policy. Only the five Applied Education colleges of PAAET will be in a position to practice this kind of policy. **Therefore, PAAET’s leadership should review their institutional structure in order to focus on the appropriate policy for an OA community.**

7.4.7 Increase Intensive English Language Courses

In this research, it was found that low competency in English could impede participation in OA IR. Intensive English language courses are required for academic staff who will practice the OA policy, and PAAET already provides many courses related to professional academic subjects and skills development. This is fundamental in the global OA trend as most publications and materials are written in English. The results also suggest that the educational background of academics influences their competence in English; this could be a factor that hinders OA implementation. **PAAET should consider developing a strategy in implementing OA by introducing policies concerning English language capabilities and offering comprehensive English language courses for academic staff. This change will have other positive affects such as increased staff effectiveness and self-reliance on accessing knowledge from other researchers who publish in English.**

7.4.8 Encourage Interdepartmental Collaboration

It seems clear that the top management's interaction with departments does not encourage collaboration and communication between the departments. There are also concerns that standards and priorities set by the top management should be made in the best interest of the institution. For example, it is not clear whether the Department of Research or the Deanship of Libraries should be responsible for receiving faculty members' submissions, entering the meta-data into PAAET's IR and enabling public access. **Therefore, the role of the Research Department should be changed from archiving research papers to acting as a Research Panel and handing over the technical role (meta-data procedures) to the Deanship of Libraries, as a matter of the highest importance.**

7.5 Limitations and Strengths of the Research

This study was challenging due to the nature of the research, based on interviews and questionnaires. Yin (2009) notes that every research study is limited by the restrictions placed upon the researcher, and this research is no exception. I made every effort to overcome these limitations to ensure that this study could be conducted smoothly, but it was not possible to control all the factors that were likely to affect its quality. One of the

limitations of the research is the selection of the sample, which allowed selection of only a single case study. Another case study could not be included because PAAET is the only vocational and training academic institution in Kuwait. This research cannot therefore be directly generalised to a wider population in Kuwait. The main results could, however, be considered by another Kuwaiti HE institution its first steps towards OA.

Several obstacles were encountered in the use of the questionnaire method, during the distribution, completion and collection of the forms. In the distribution process, the main barrier was locating and communicating with the selected respondents. Some of the academic staff were not available during the administration of the questionnaire due to summer holidays or other commitments. It took a considerable amount of time and effort to ensure that these respondents completed the questionnaire. Another problem was dependence on the secretary or administrator in each department. Most were very helpful and supportive, but a few were not cooperative, possibly due to their workload, stress or for other reasons. However, a response rate of 43.75% (154 out of 352) is considered representative for this type of research.

From the point of view of managing the fieldwork interviews, the same problems arose as with the questionnaire. In addition, it was very difficult to arrange appropriate times for the interviews and to convince some interviewees of the importance of the research. Management of the interview time is critical in ensuring that the interviewee is focused on the questions; in one session the interviewee tried to shift the focus to his own agenda. One of the main advantages of the fieldwork and of the data collection process, however, was that the personal experience, knowledge and feelings of the respondents were obtained.

In terms of strengths, several methods were used to collect data. The face-to-face interviews with senior staff helped in exploring several issues that would not have been considered using any other data collection method. The interviews also provided a wealth of in-depth information to inform the research objectives; the researcher was passive and observed the participants' reactions, which helped in understanding the situation better.

7.6 Reflection on Methodology

The researcher used a mixed-methods approach, in which the qualitative method was the in-depth investigation adopted in the case study and the quantitative method was gathering basic data to complement the qualitative data. This approach helped to achieve the research results and to provide data for analysis. A multitude of factors from a cross-section of staff (higher management, librarians, faculty members and employees) at various administrative levels and across the five colleges in PAAET provided an in-depth understanding.

7.7 Recommendations for Future Research

This research has focused on the readiness for OA policy implementation among PAAET's academic staff members, and has explored several issues that need to be investigated and analysed further to help in promoting OA initiatives within the institution in order to achieve readiness for future OA implementation. This section highlights and justifies the need for further research into these issues.

7.7.1 Application of the findings

A logical addition of this study would be to test the expediency of the research outcomes. Further research is needed into the practical steps that could be taken, together with an evaluation by PAAET, of the proposed list of recommendations and actions. An evaluation of the proposed recommendations could add value to its real-time validity and implications.

7.7.2 Extension of the findings

This investigation adopted a single exploratory case study approach, as mentioned above. An important opportunity for further research within institutions of a similar nature may exist in Kuwait and in some of the other five Gulf Cooperation Council (GCC) countries in order to expand the findings of this study by conducting an additional case studies. In addition, further work could be important to compare and differentiate the findings from more than one academic institution.

Factors relating occupation to educational background, which were identified but not considered in this study, should be incorporated into future research.

7.7.3 The Development and Implementation of OA policy

This research was exploratory and examined several factors related to readiness for OA implementation that need to be considered further in promoting OA and OA policy implementation in PAAET. Further research is needed to investigate the most appropriate technological system to promote OA and to break down physical barriers in PAAET. A further investigation could be carried out to include the use of technology as a tool in the promotion of OA that would fit both the organisational and the national culture (e.g. a bilingual system, Arabic/English). PAAET's authorities need to sponsor a research investigation that could identify the most appropriate OA system that would reflect PAAET's organisational culture and which would meet its needs.

7.8 Reflections on the research from the interpretive perspective

This section describes the evaluation of this study using the seven principles for high-quality interpretive field studies proposed by Klein and Myers (1999). It is necessary because the researcher wants to reflect, evaluate and ensure that the research is credible and convincing. All seven principles should be considered, although Klein and Myers do not specify the degree of intensity; instead they encourage researchers to apply their own judgement in view of the specific research effort.

Klein and Myer's principles for interpretive field research	Researcher's understanding of the principle and reflection on its application in this study
<p>1. The fundamental principle of the hermeneutic circle.</p>	<p><i>This principle suggests that all human understanding is achieved by iterating between considering the interdependent meaning of parts and the whole that they form. This principle of human understanding is fundamental to all the other principles.</i></p> <p>In the study this principle was, for example, used by starting from an overview of the perception of academic staff towards Open Access and to uncover the factors that influences the readiness of open access policy implementation in PAAET/Kuwait. This is to increase understanding of this concept by looking at the possible contextual factors that allowed the researcher to understand the organisational readiness for implementation that was suggested by Weiner (2009). TORC was used as a holistic base and individual factors were identified and related to this, based on the exploratory case study findings, both the qualitative and quantitative results.</p>
<p>2. The principle of contextualisation</p>	<p><i>Requires critical reflection of the social and historical background of the research setting, so that the intended audience can see how the current situation under investigation emerged.</i></p> <p>The context of a Kuwaiti organisational culture in relation to the readiness to OA policy implementation is considered in the literature review because it was felt by the researcher that readers who are not used to Kuwaiti organisational culture would find this information valuable for their understanding of the research setting. A whole</p>

	<p>chapter is dedicated to the Kuwaiti context (Chapter 3).</p> <p>In addition, the participants' organisational cultural environment of PAAET was acknowledged when interpreting the data and analysing readiness for the implementation of an open access policy. The researcher's background was introduced in Chapter 1 (section 1.6). The accuracy of the answers was assessed during the data collection stage.</p>
<p>3. The principle of interaction between the researcher and the subject</p>	<p><i>Requires critical reflection on how the research materials (or "data") were socially constructed through the interaction between the researchers and participants.</i></p> <p>The research was carried out by a Kuwaiti librarian who speaks the language of the participants and is familiar with the cultural customs of the Kuwaiti higher education sector. The interaction between the researcher and the participants (academic staff) was discussed as part of research requirement (Methodology Chapter). This focused on the data types, sources and data analysis. It is acknowledged that this 'cultural and professional familiarity' has had an impact on the data collected by the researcher.</p> <p>For example, the researcher was treated as a colleague by some academic staff who were interviewed in the study. The researcher reacted to this situation and tried to highlight her role as researcher, as opposed to her professional role as a librarian, but it cannot be denied that this attempt had limited realisation. As a result, the data collected in this study may differ significantly from data collected by another researcher with a different</p>

	background.
4. The principle of abstraction and generalisation	<p><i>Requires relating the ideographic details revealed by the data interpretation through the application of principles one and two to theoretical, general concepts that describe the nature of human understanding and social action.</i></p> <p>The research was conducted with attention to the unique setting of the study in Kuwait and a higher education institution, as much of the existing literature reported findings from studies with different perspectives. Therefore, no claims are made in this study that the findings can be transferred to settings with significantly different organisational or cultural settings. It is also recognised that agreement between the study’s findings and the extant literature does not necessarily suggest that the basic explanations, e.g. environmental factors, are the same.</p> <p>Example: Interpretations of academic staff’s readiness were discussed and emerging factors identified. Evolving views were discussed in the light of the practice and theory of organisational readiness and used to modify the frame of the conversation.</p>
5. The principle of dialogical reasoning	<p><i>Requires sensitivity to possible contradictions between the theoretical preconceptions guiding the research design and actual findings (“the story which the data tell”) with subsequent cycles of revision.</i></p> <p>This case study has been made transparent to the reader and the process has enabled the researcher to confront some of her own presumptions about the perceptions of academic staff to open access and the readiness for open access policy implementation in PAAET/Kuwaiti.</p>

	<p>Significant parts of the research process were exchanges at conferences and collaboration with colleagues in the UK. Discussions with other students and senior researchers forewarned me of preconceptions and bias several times. Valuable insights into their relation to cultural differences resulted from these exchanges and were used in the research process.</p>
<p>6. The principle of multiple interpretations</p>	<p><i>Requires sensitivity to possible differences in interpretations among the participants as are typically expressed in multiple narratives or stories of the same sequence of events under study. Similar to multiple witness accounts even if all tell it as they saw it.</i></p> <p>The researcher considered distinctive points of view from the different participants in the study. This provided a variety of views and perspectives, and it has been a main concern of this research to report agreements as well as differences in a clear and transparent manner. Exact quotes were used to show the data to readers so that they can formulate their own interpretations and follow the reasoning used in this process.</p>
<p>7. The principle of suspicion</p>	<p><i>Requires sensitivity to possible “biases” and systematic “distortions” in the narratives collected from the participants.</i></p> <p>In this study the possibility that participants might provide responses that are subject to bias resulting from social factors is recognised. For example, it is likely that academic staff (librarians) will give the answers they believe necessary during interviews if they expect this information to be revealed to higher management or other persons of authority in PAAET. To ensure against this possibility the respondents were made aware that all data</p>

	<p>collection methods in the study were carried out in strict confidentiality. Participants were also able to decline participation in any research-connected methods.</p> <p>Biases were also addressed with several data collection sources and several data analysis phases. A rich description of data was used to allow the reader to follow the interviews.</p>
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Table 26: Summary of reflections on the research using Klein & Myers’ principles

The above table summarises the seven principles of interpretive research evaluation and explains their application during the research process. The researcher attempted to give due attention to all of these principles throughout the work on this thesis.

7.9 Personal Reflections on the Research Process

This section aims to reflect on the researcher’s own experience as a researcher over the past three years. Reflection is needed to help identify strengths and areas for improvement; this can be monitored by designing an action plan to progress and improve the researcher’s personal performance. The researcher’s knowledge and skills today allow her to reflect and critically identify her strengths and areas for improvement due to the experience she gained throughout the research process. The last three years represent a foundation in her personal development in terms of conducting research. The research process has contributed to supporting her knowledge, skills and capability in several aspects of research in general (such as research strategies and methods), and in OA in particular.

7.10 Concluding Remarks

Open access in higher education is necessary in order to enhance academic activity in research. Academic staff and senior management do not practise OA policy in PAAET take full advantage of OA initiatives. This research has explored several factors that affect readiness for OA policy implementation in PAAET, therefore, PAAET’s management

needs to consider these factors in its strategic plan for OA policy implementation. PAAET's strategic plan should consider two main factors: first, the creation of an appropriate OA culture. This can be achieved by breaking down the barriers that impede the readiness for OA policy implementation that were found in this research. The second factor is the need to consider the main actors and advocates in OA policy implementation processes, namely academic staff and senior management. PAAET needs to establish policies, processes and guidelines to promote OA. This organisational transformation may not be easily made. However, taking the first step would begin to change the whole academic environment at PAAET in order to achieve readiness for future OA policy implementation.

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Appendix 1 University Of Salford Research Ethical Approval

Academic Audit and Governance Committee

Research Ethics Panel
(REP)

To Zawainah Allamki
cc: Dr Aleksej Heinze, Ms J Mulhall
From Jayne Hunter, Contracts Administrator
Date 8th April 2011



MEMORANDUM

Subject: Approval of your Project by REP
Project Title: A feasibility of Open Access Publishing Policy in the Public Authority for Applied Education and Training/ PAAET/Kuwait: An exploratory Case Study.
REP Reference: REP10/168

Following your responses to the Panel's queries, based on the information you provided, I can confirm that they have no objections on ethical grounds to your project.

If there are any changes to the project and/or its methodology, please inform the Panel as soon as possible.

Regards,


Jayne Hunter
Contracts Administrator

For enquiries please contact
Jayne Hunter
Contracts Administrator
Contracts Office
Enterprise Division
Faraday House
Telephone: 0161 295 3530 Facsimile: 0161 295 5494
E-mail: j.hunter@salford.ac.uk

Appendix 2 PAAET Ethical Approval Letter for Field Study

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

**THE PUBLIC AUTHORITY
FOR APPLIED EDUCATION & TRAINING.**



**الهيئة العامة
للتعليم التطبيقي والتدريب**

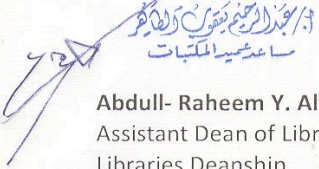
المرجع :
التاريخ: 20 / 10 / 2010
الموافق: / /

To: The University of Salford
Dear Sir,

The Public Authority for Applied Education and Training has no objection on the fieldwork and data collection of Ms. Zuwainah Allamki who is a scholarship student from PAEET and a PhD student at the University of Salford. She may conduct interviews and distribute a questionnaire to Librarians and employees at the Deanship of Libraries and at the Colleges' Libraries of PAAET concerning her research on Open Access Publishing Policy . We will gladly provide her with all the information and facilities that she requires to fulfill her research requirements and standards.

Thank you for your cooperation.

Kind regards,


سعيد عبد الله المكتبات

Abdull- Raheem Y. Altaher
Assistant Dean of Libraries
Libraries Deanship
Tel: +96522564961 – Ext. 1250

ص ب ٢٣١٦٧ الصفاة (13092) الكويت بدالة ٢٥٦٤٩٦٠ فاكس ٢٥٢٨٩١٥

I. Perceptions on open access

- 1 Is PAAET familiar with the Open Access trend within its community?
- 2 In your opinion, what are the benefits of an Open Access policy to the research community?
- 3 Is there any role of Open Access or Open Access policy practice among PAAET's academic community?

II. Policies and procedures

- 4 In your opinion, how does the senior management encourage policy development in order to implement an effective policy? In your opinion, how?
- 5 In your opinion, is the management open or pay attention to the suggestions of the academic staff and employees before implementing a policy?
- 6 In your opinion, how will the government intervene on open access policy implementation in PAAET through their instructions?
- 7 In your opinion, what type of Open Access policy will be appropriate for PAAET? A mandated policy or a voluntary policy? And why?

III. Past experience

- 8 In your opinion, what are the main issues that affect policy practice in general that needs to be considered?

IV. Organizational resources

- 9 In your opinion, in order to maintain an open access Institutional repository (system) in PAAET, how is the foundation of IT infrastructure (resources) and the level of IT support provided?
- 10 In your opinion, what is the level of support provided from Information professionals (librarians)?

V. Organizational structure

- 11 In your opinion, what are the colleges in PAAET that will be able to practice an open access policy in the future? And why?

VI. Organisational culture

- 12 In your opinion, what are the cultural challenges that could face the institution when implementing an Open Access Policy?
- 13 In your opinion, how does the institutional culture influence the development/ implementation of a policy?

VII. Organisational Tensions

- 14 In your opinion, what are the tensions that could face the institution when implementing an Open Access Policy?

VIII. Overcoming Challenges

- 15 How do you think these cultural challenges can be overcome?

Research overview / Consent Form / Consent Withdrawal

Section A. Research overview

Dear Administrator/ Librarian/ Research active member,

Improving access to research is the goal of the Open Access Movement. And the ever-increasing importance of open access practice in academic institutions is becoming overwhelming. Therefore, it was felt important in this research to identify the readiness of the implementation of open access policy and sharing initiatives in order to build a foundation of Open Access policy for Kuwaiti higher education institutions. We would therefore like to have your views in order to structure guidelines for the recommendation of future implementation of Open Access Policy in Kuwaiti Higher education Institutions.

The data will be collected by questionnaires. We cannot guarantee that there will be any benefits to you from this research. **Zuwainah Allamki** a PhD student at the University of Salford is conducting the research under the supervision of Dr. Aleksej Heinze.

Please rest assured that:

- Your participation is voluntary – you don't have to participate.
- Participation or refusal to co-operate will have no bearing on your position in the Public Authority for Applied Education and Training.
- You can always contact the researcher if you have any queries regarding this research.
- Any information provided will remain confidential.
- You will not be identified, unless otherwise agreed.
- Data collected will be fed back to you so that you can make corrections.
- Data analysis will be available on request.
- Your name and signature are used only as proof of reading the consent statement below – these will not be used in any other way.
- You can withdraw your consent at any time (using the Consent Withdrawal - section on the next page).

Please complete Section (B) or (C) at any one time - Thank you.

Section B. Consent Form:

I have read and understood Section (A) above. By signing below I agree that the information that I am going to provide will be used for the above research purpose.

Print Name: Signature:
.....

Date:

Section C. Consent Withdrawal:

I withdraw my consent to participate in research outlined above in Section (A). By signing below I agree that any information given by me will not be used for the above research purpose. I also understand that this action **will not** influence my relationship with the researcher his supervisor or the University of Salford.

Print Name: Signature:
.....

Date:

Information Systems Research Group (ISOS), Maxwell Building, University of Salford,
M5 4WT. e-mail: z.allamki@pgr.salford.ac.uk

I. General Information:

1. Where do you work at PAAET?

1. College of Basic Education
2. College of Nursing
3. College of Business
4. College of Technology
5. College of Health Science
6. Library
7. Deanship of Libraries
8. Research Department

II. Open Access perceptions, Policies and procedures:

3. Have you ever heard about Open access?

1. Yes
2. No
3. Not sure

Please tick the appropriate choice that reflects your opinion, where the categories are:

NO	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Open access is important.					
2	My institution is aware about Open Access.					
3	Open Access will have an impact on my role in my institution.					
4	Open Access can increase the motivation for research active members to publish					
5	Open Access increases the visibility of research impact.					
6	Open Access does not influence the increase of citations.					
7	Open access does help avoid duplication in research efforts.					
8	Open Access can help increase the motivation for research active members to publish.					
9	Open Access can increase improvement of a researcher's career.					
10	Open access will not help keep track of research active members' output in my institute.					
11	Open Access policy does not encourage research active members to deposit their research in an Open Access institutional Repository.					

12	PAAET needs to implement an open access policy to establish an open access institutional repository for research active members outcomes.					
13	An Open access policy gains the institution a better picture of research outputs.					
14	It will be difficult for my institution to collaborate with other institutions through Open Access.					
15	Open access policy should not be mandated in my institution.					
16	A voluntary Open access policy is appropriate for my institution.					
17	Self-archiving in the Institutional Repository will be easy for researchers in PAAET.					
18	An agreement should be made between the researcher and the library to grant the institution a permission to make his or her scholarly articles available in the IR and to exercise the copyright for those articles.					
19	There will not be copyright issues with publishers if peer-reviewed articles are deposited in PAAET's					
20	Only published research should be deposited in PAAET's Institutional repository.					
21	PAAET needs an open access policy to implement an open access institutional repository for research active members outcomes.					
22	The government has no influence on open access policy practice through their instructions.					

III. Organisational Resources

NO	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
23	Lack of Open Access professionals will prevent the implementation of an open access policy.					
24	Technology resources do not prevent the implementation of an open access policy.					

IV. Organisational Tensions

NO	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
25	Open access could help my institute to reduce costs.					
26	Financial Issue is not an open access barrier.					
27	The financial department will provide more research funds when open access policy is practiced in my institution.					
28	Only funded research by the financial department should be deposited in PAAET's institutional repository.					

V. Overcome Challenges

NO	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
29	More efforts must be made by my institution to spread the awareness of Open access.					

VI. Open-ended questions:

30. In your opinion, what are the cultural challenges that could face the institution when implementing an Open Access Policy?

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31. How do you think these cultural challenges can be overcome?

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32 Do you have anything more to add?

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“Thank you for your Participation and completing this form”

Appendix 6

Questionnaire Results

1. Perceptions on OA and the need of an OA policy in PAAET

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Open access is important.	19 12%	77 50%	43 28%	9 6%	6 4%
My institution is aware about Open Access.	3 2%	32 21%	62 40%	44 29%	13 8%
Open Access will have an impact on my role in my institution.	20 13%	69 45%	47 31%	13 8%	5 3%
Open Access can increase the motivation for research active members to publish	23 15%	61 40%	58 38%	8 5%	4 2%
Open Access increases the visibility of research impact.	35 23%	67 43%	40 26%	11 7%	1 1%
Open Access does not influence the increase of citations.	5 4%	28 18%	40 26%	56 36%	25 16%
Open access does help avoid duplication in research efforts.	6 5%	28 18%	45 29%	59 38%	16 10%
Open Access can help increase the motivation for research active members to publish.	23 15%	61 40%	58 38%	8 5%	4 2%
Open Access can increase improvement of a researcher's career.	18 12%	35 23%	51 33%	33 21%	17 11%
Open access will not help keep track of research active members' output in my institute.	6 4%	27 18%	45 29%	57 37%	19 12%
Open Access policy does not encourage research active members to deposit their research in an Open Access institutional Repository.	28 18%	63 41%	56 36%	4 3%	3 2%

2. Policies, procedures and Past experience

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
PAAET needs to implement an open access policy to establish an open access institutional repository for research active members outcomes.	15 10%	63 41%	56 36%	13 8%	7 5%
An Open access policy gains the institution a better picture of research outputs.	28 18%	63 41%	56 36%	4 3%	3 2%
It will be difficult for my institution to collaborate with other institutions through Open Access.	15 10%	29 19%	47 30%	41 27%	22 14%
Open access policy should not be mandated in my institution.	12 8%	49 32%	86 56%	6 3%	1 1%
A voluntary Open access policy is appropriate for my institution.	20 13%	59 38%	63 41%	11 7%	1 1%
Self-archiving in the Institutional Repository will be easy for researchers in PAAET.	28 18%	51 33%	57 37%	13 9%	5 3%
An agreement should be made between the researcher and the library to grant the institution a permission to make his or her scholarly articles available in the IR and to exercise the copyright for those articles.	3 2%	41 27%	52 34%	46 30%	12 7%
There will not be copyright issues with publishers if peer-reviewed articles are deposited in PAAET's	13 8%	30 20%	59 38%	42 27%	10 7%
Only published research should be deposited in PAAET's Institutional repository.	15 10%	44 28%	55 36%	32 21%	8 5%
PAAET needs an open access policy to implement an open access institutional repository for research active members outcomes.	7 5%	26 17%	95 62%	16 10%	10 6%
The government has no influence on open access policy practice through their instructions.	17 11%	36 23%	34 34%	41 27%	8 5%

3. Organizational resources

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Lack of Open Access professionals will prevent the implementation of an open access policy.	12 8%	60 39%	51 33%	26 17%	5 3%
Technology resources do not prevent the implementation of an open access policy.	27 17%	55 36%	56 36%	15 10%	1 1%

4. Organizational Tension

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Open access could help my institute to reduce costs.	17 11%	50 33%	69 45%	16 10%	2 1%
Financial Issue is not an open access barrier.	7 4%	48 31%	84 55%	15 10%	0 0%
The financial department will provide more research funds when open access policy is practiced in my institution.	26 16%	62 40%	60 39%	6 4%	1 1%
Only funded research by the financial department should be deposited in PAAET's institutional repository.	11 7%	26 17%	49 32%	55 36%	13 8%

5. Overcoming Challenges

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
More efforts must be made by my institution to spread the awareness of Open access.	35 23%	74 48%	31 20%	10 6%	4 3%

Appendix 7

Questionnaire/ Literature Justification

Statement	Literature
Have you ever heard about Open access?	Lin (2009); Morrison (2007); Swan, (2006); Pinfield (2004)
Open access is important.	Pinfield, (2004b); Lin, Xiwen and Xiaolin (2009); Morrison (2007); Swan (2006)
My institution is aware about Open Access.	Lin (2009); Morrison (2007); Swan, (2006); Pinfield (2004)
Open Access will have an impact on my role in my institution.	Jeffery (2006); Pinfield (2004a, b, 2005)
Open Access can increase the motivation for research active members to publish.	Kim, J. (2010); Harnad (2008b); Lawrence, 2001b; Antelman, 2004; Harnad and Brody, 2004; Suber, 2004; Brody, <i>et al.</i> 2004; Kirsop and Chan, 2005; Pinfield, 2005; Zhang, 2007
Open Access increases the visibility of research impact.	Brody (2007) Jeffery (2006); Pinfield, (2004, 2005); Pinfield <i>et al.</i> (2002), Anbu (2011); Kirsop and Chan (2005)
Open Access does not influence the increase of citations.	Chan (2005); Lawrence (2001b); Antelman (2004); Harnad and Brody, (2004); Suber (2004); Brody, <i>et al.</i> (2004); Kirsop and Chan (2005); Pinfield (2005); Zhang (2007).
Open access does help avoid duplication in	Bosc (2005); Lawrence (2001b);

research efforts.	Antelman (2004); Harnad and Brody, (2004); Suber (2004); Brody, <i>et al.</i> (2004); Kirsop and Chan (2005); Pinfield (2005); Zhang (2007)
Open Access can increase improvement of a researcher's career.	Brody (2007); Lawrence (2001b); Antelman (2004); Harnad and Brody, (2004); Suber (2004); Brody, <i>et al.</i> (2004); Kirsop and Chan (2005); Pinfield (2005); Zhang (2007)
Open access will not help keep track of research active members' output in my institute.	Lawrence (2001b); Antelman (2004); Harnad and Brody, (2004); Suber (2004); Brody, <i>et al.</i> (2004); Kirsop and Chan (2005); Pinfield (2005); Zhang (2007)
Open Access policy does not encourage research active members to deposit their research in an Open Access institutional Repository.	Lawrence, 2001b; Antelman, 2004; Harnad and Brody, 2004; Suber, 2004; Brody, <i>et al.</i> 2004; Kirsop and Chan, 2005; Pinfield, 2005; Zhang, 2007
PAAET needs to implement an open access policy to establish an open access institutional repository for research active members outcomes.	Pinfield (2004) Lin (2009); Gul (2010);); Lawrence (2001b); Antelman (2004); Harnad and Brody, (2004); Suber (2004); Brody, <i>et al.</i> (2004); Kirsop and Chan (2005); Pinfield (2005); Zhang (2007)
An Open access policy gains the institution a better picture of research outputs.	Lawrence (2001b); Antelman (2004); Harnad and Brody, (2004); Suber (2004); Brody, <i>et al.</i> (2004); Kirsop and Chan (2005); Pinfield (2005); Zhang (2007)
It will be difficult for my institution to collaborate with other institutions through Open Access.	Magara, (2002); Bosc and Harnad, (2005); Lawrence (2001b); Antelman (2004); Harnad and Brody, (2004); Suber (2004); Brody, <i>et al.</i> (2004); Kirsop and Chan (2005); Pinfield (2005); Zhang (2007)
Open access policy should not be mandated in my institution.	Sale (2006b); Harnad (2008b); Swan and Brown (2007); Swan and Brown (2004b); Xia , Gilchrist, Smith, Kingery (2012)

A voluntary Open access policy is appropriate for my institution.	Baker (2010); Sale (2006b)
Self-archiving in the Institutional Repository will be easy for researchers in PAAET.	Swan (2005, 2006); Pinfeild (2005)
An agreement should be made between the researcher and the library to grant the institution a permission to make his or her scholarly articles available in the IR and to exercise the copyright for those articles.	Swan (2005); Sale (2006); Kim (2010); Grgic and Barbaric (2010)
There will not be copyright issues with publishers if peer-reviewed articles are deposited in PAAET's	Swan (2005); Grgic and Barbaric (2010); Pinfield (2004)
Only published research should be deposited in PAAET's Institutional repository.	Harnad (2001); Swan (2005); Pinfield (2010); Houghton, Swan and Brown (2011)
PAAET needs an open access policy to implement an open access institutional repository for research active members outcomes.	Lin (2009); Gul (2010); ; Pinfield (2004).
The government has no influence on open access policy practice through their instructions.	Morrison (2005) Diamond 1986; Garfield (1988); Harnad (2001); Swan (2005); Pinfield (2010); Houghton, Swan and Brown (2011)
Lack of Open Access professionals will prevent the implementation of an open access policy.	Swan et al. (2005); Schmidt (2005); Pinfield, (2004, 2010); Meyer (2008) ; Schmidt, Sennyey and Carstens (2005);
Technology resources do not prevent the implementation of an open access policy.	Swan et al. (2005); Haneefa (2007); Al-Ansari, (2011)
Open access could help my institute to reduce costs.	Odlyzko (2006); (Chan, 2005); Arunachalam (2003); Cetto (2000).
Financial Issue is not an open access barrier.	Chan (2005); Harnad; Brody (2004); Morrison (2005); Pinfield (2006, 2010)
The financial department will provide more research funds when open access policy is practiced in my institution.	(Harnad; Brody, 2004) Morrison (2005) Pinfield (2006, 2010)
Only funded research by the financial department should be deposited in PAAET's institutional repository.	Harnad; Brody (2004) Morrison (2005); Pinfield (2006, 2010)
More efforts must be made by my institution to spread the awareness of Open access.	(Swan and Brown (2004b); Pinfield (2010); Morrison (2007); Abrizah (2010); Brown

	(1998); Senior (2002);
In your opinion, what are the cultural challenges that could face the institution when implementing an Open Access Policy?	Swan (2005). Pinfield (2003); Pinfield, Gardner and MacColl (2002) Abdul Rashid et al. (2004); Chai and Pavlou (2004); Davison (1996;) Fey and Denison (2003); Frotaine and Richardson (2003)
How do you think these cultural challenges can be overcome?	Participants opinion.

Appendix 8

Profiles of PAAET's Colleges

This section introduces the five colleges of the Public Authority of Applied Education and Training (PAAET). Each of these colleges has separate buildings for males and females.

College of Basic Education

This college was a part of the teachers' institute that was opened in 1962, which was then developed to become the College of Basic Education in 1986 within PAAET's colleges. The college offers the following specialisations: the Arabic language, Mathematics, Islamic Education, Art Education, Librarianship and Educational Technology, Physical Education and Sport, Kindergarten Education, Interior Design, Music, Electrical Studies, and Home Economics. The college's objectives are: to produce qualified graduates in specialties that are needed by the Ministry of Education, to prepare skilled graduates to teach in primary and kindergarten schools in Kuwait, and to study the requirements of the Ministry of Education in order to promote links between the appropriate divisions of the ministry and the College of Basic Education (PAAET, 2011).

College of Business Studies

This college offers the following specialist courses: Administration, Medical Secretarial Skills, Banking and Insurance, Materials' Management, Secretarial Skills, Cooperative Management, Administration, and Computer Studies. The college's objectives are to qualify and prepare skilled graduates in different specialties that are needed for the administrative, financial and commercial fields in both the government, private and corporate sectors (PAAET, 2011).

College of Health Science

This college specialises in the following programmes: Pharmaceutical Science, General Nursing, and Oral and Dental Health (these courses are only for females). The college also offers courses in Medical Records management, Food Inspection, Occupational Health, and Dietary Assistance. The college's objectives are to cover the need for skilled manpower in the field of the paramedical service and to qualify students to work in

medical centres, pharmacies and hospitals, as well as in other state institutes (PAAET, 2011).

College of Nursing

This college prepares students for a general skilled nursing qualification that enables them to serve both the Ministry of Health and the private sector, and to provide the skilled labour that is needed in this field in Kuwait (PAAET, 2011). In March 2009, the College of Nursing held the fourth International Nursing Conference that offers members an opportunity to exchange and share ideas, knowledge and experience at both a local and international level. The college also wishes to be involved with the surrounding community by sharing and participating in school nursing programs (PAAET, 2011).

College of Technological Studies

This college offers specialised programs in: Mechanical Automotive and Marine Engineering Technology, Mechanical Power and Refrigeration Engineering Technology, Civil Engineering, Laboratory Technology, Electrical Engineering, Chemical Engineering, Petroleum Engineering, and Electronic Engineering. The college's objectives are to qualify skilled graduates and to prepare its students to work at high levels in their fields of specialty (College of Technological Studies, 2006).

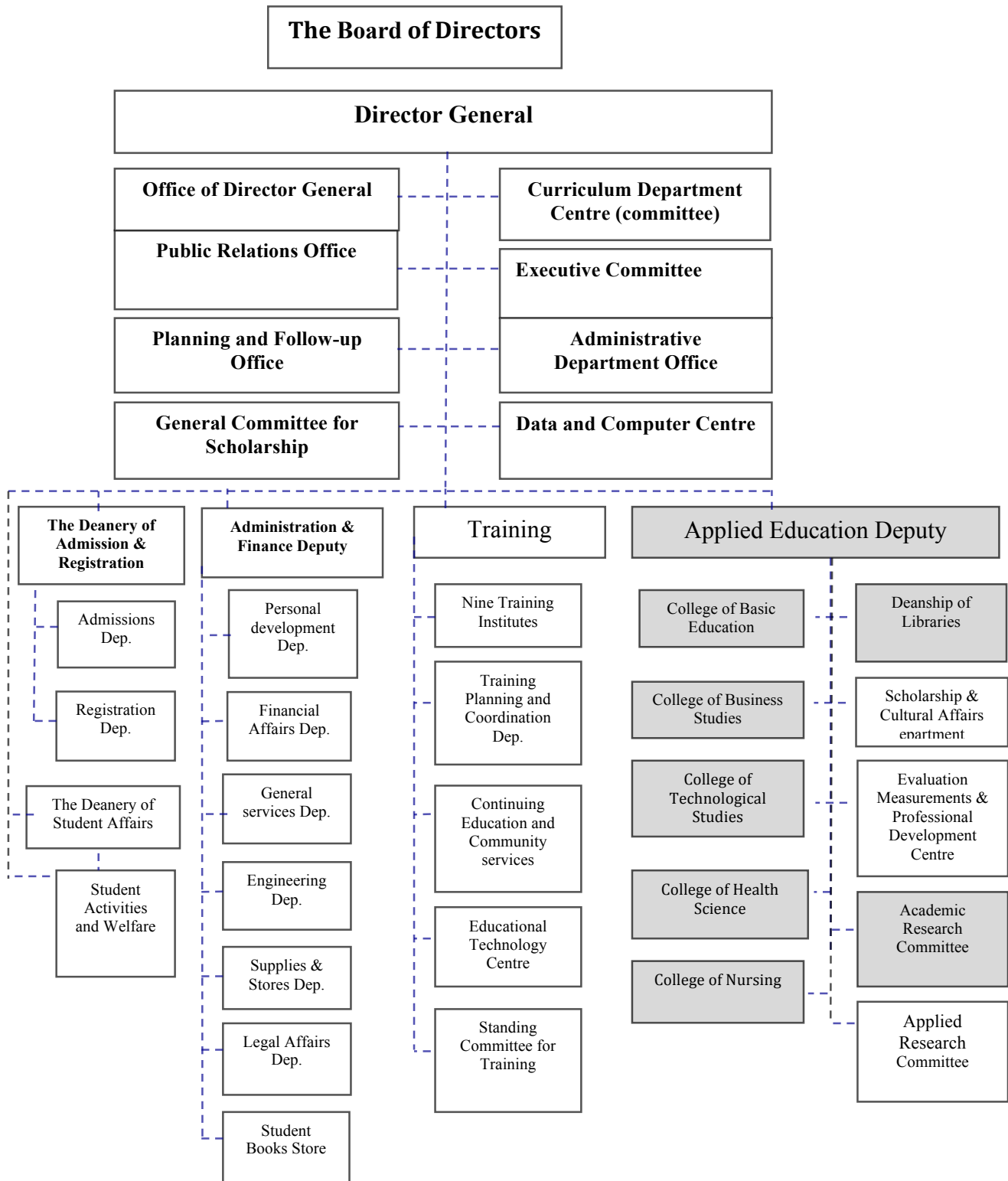


Figure 3.2: PAAET Organisational Structure.