Unemployment Among Digital Media Graduates from Colleges of Applied Sciences in the Sultanate of Oman

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Attestation of Authorship

 I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

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Ethical Approval

This research has obtained ethical approval 12/179 from the Auckland University of Technology Ethics Committee on 28th August 2012.

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Abstract

This research investigated the situation of unemployment among digital media graduates from the Colleges of Applied Sciences classes of 2010 and 2011 in The Sultanate of Oman. The study aimed to provide information about the relationships between the industry and the Digital Media education system at the Colleges of Applied Sciences. This was in order to find out the reasons behind the graduates' unemployment. Possible solutions to end unemployment among digital media graduates have been suggested.

This research targets the Omani local industry and the Colleges of Applied Sciences represents in Nizwa College of Applied Sciences. Four categories of participants took part in the research: Digital Media professionals from the Omani industry, current students of Digital Media, academics of Digital Media, and graduates from the 2010 and 2011 classes. I used the triangulation approach as the methodology for data collection, and for analysing data; conductive and inductive analyses were used.

The research results found five key reasons for unemployment: the limited industry of Digital Media in The Sultanate of Oman, the mismatch between the qualifications taught to students and qualifications demand by the industry, the lack of communication between the Colleges of Applied Sciences and the Omani industry of digital media, lack of society awareness of Digital Media, and the lack of student consultation provided by the academics in Colleges of Applied Sciences.

The researcher suggests that to avoid this situation of unemployment, the Colleges of Applied Sciences and the Omani Digital Media industry should work together to create communication paths . Also, activating student's consultation will help solve the problem of unemployment.

Chapter one: Introduction

Background

This research discussed the experience of unemployment among Digital Media graduates from the Colleges of Applied Sciences classes of 2010 and 2011 in the Sultanate of Oman.

In the Sultanate of Oman, the Ministry of Higher Education (MoHE) converted six colleges of education into Colleges of Applied Sciences (CAS), beginning in the 2005/2006 academic year. The six colleges/departments – Nizwa, Ibri, Sur, Sohar, and Rusraq - offer 5-year academic programs, including a one-year foundation course, followed by four-year Bachelor's degree courses in information technology, international business administration, design and communications (Omani Ministry of Information, 2006). According to MoHE (2012), CAS have a long history, beginning in the 1970s when they were established as teacher training institutions awarding a two-year Diploma in Education. In the mid-1990s, the Colleges were converted into Colleges of Education offering a four-year Bachelor of Education. Based on a study of the local labour market needs, The Colleges of Education were converted to Colleges of Applied Sciences (Al-Badwawi, 2011,P.4).

The researcher attended one of the first graduation ceremonies of the Colleges of Applied Sciences class of 2010. The researcher had a conversation with a group of Digital Media graduates from the class of 2010 which suggested that they had a serious problem in finding jobs in the local Omani industry of Digital Media. Al-Badwawi (2011) indicated that the conversion of Colleges of Applied Sciences was based on a study of the local labour market needs, however, the fact that the first graduates from the specialization of Digital Media could not find jobs in the local industry appeared to contradict the fact that this specialization is highly demanded by the local industry. The researcher took this conversation as a starting point for the research by taking the main idea of that conversation to be the theme of the research, that is, the situation of unemployment among Digital Media graduates from the classes of 2010 and 2011.

1.1 Research Question

After specifying the main idea of the research, the second step was to form the research question. The research question is the most critical part of any research. It defines the

whole process, it guides the arguments and inquiry, and it provokes the interests of the reviewer. If the question does not work well, no matter how strong the rest of the research, the endeavour is unlikely to be successful. (kirk &Miller,1985)

The question of this research was "what are the key reasons behind the situation of unemployment among Digital Media graduates from the Colleges of Applied Sciences classes of 2010 and 2011 in the Sultanate of Oman?"

The question of the research led to sub questions that helped generate the full answer that the researcher was looking for. These sub questions were:

1.What are the reasons for unemployment among Digital Media graduates from the perspective of the local Omani industry of Digital Media?

2. What are the employment requirements of the local Omani industry of Digital Media?

3. What are the reasons for unemployment among Digital Media graduates from the perspective of the academic staff working in Colleges of Applied Sciences?

4. What effort has been made by the Colleges of Applied Sciences to avoid the problem of unemployment among their Digital Media graduates?

5. What are the reasons for unemployment among Digital Media graduates from the perspective of the Digital Media graduates?

6. What are the reasons for unemployment, among Digital Media graduates, from the perspective of the current Digital Media students at the Colleges of Applied Sciences?

1.2 The Aim and Significance of the Research

The situation of unemployment among Digital Media graduates from the Colleges of Applied Sciences classes of 2010 and 2011 is a serious situation if we consider the fact that the class of 2010 and 2011 were the first classes to graduating from these colleges. If there is a demand for the Digital Media specialization in the country, there must be reasons for the high percentage of unemployment among Digital Media graduates.

The research aimed to find the key reasons behind the situation of unemployment among Digital Media graduates from the Colleges of Applied Sciences classes of 2010 and 2011. The significance of this research was that it provided the Colleges of Applied Sciences with enough information to prevent the situation of

unemployment among Digital Media graduates from extending to reach other classes. Another benefit of conducting this research was to provide the local industry of Digital Media in the Sultanate of Oman with information about the Digital Media candidates that are being prepared at the Colleges of Applied Sciences.

Also, the research aimed to define the relationship between the Colleges of Applied Sciences and the local Omani industry of Digital Media. Finding the reasons behind the situation of unemployment would provide the Digital Media graduates with answers and justifications for the situation they are currently experiencing. The Colleges of Applied Sciences are new colleges that are struggling to create strong foundations to provide qualified candidates for the Omani Market. This research aimed to provide help for these colleges to create strong foundations by investigating the reason of unemployment among their first graduates. Finding those reasons will lead to solving the problem and guaranteeing a good future for their graduates.

There are not many studies concerning Digital Media employment or Digital Media education in the Sultanate of Oman. This research attempted to shed light on the area of Digital Media employment in Oman and the education system at the Colleges of Applied Sciences.

1.3 Research Outline

The thesis consists of six chapters. Beside this chapter of introduction, there are five other chapters: the literature review, methodology, data analysis, data interpretation and the conclusion.

The literature review looks at the relevant literature on the topic of unemployment among Digital Media graduates. It gives background about the key terms used in the research: Digital Media, the Omani market and unemployment, and Digital Media education.

The methodology chapter outlines the methodological approaches used for collecting data and analysing data. Triangulation was the approach used in collecting data for this research. Two kinds of triangulation were applied: data triangulation and methodological triangulation. Also, the chapter goes through the approaches used to analyse data, which includes inductive and conductive analysis techniques.

The data analysis chapter presents how the content analyses approach was applied to analysing the data of the research. The data interpretation chapter categorises the data collected into themes and describes them according to the literature.

The conclusion discusses the findings and the implications of the findings. Also, it gives recommendations related to the topic and suggests relevant topics for future research.

Chapter two: Literature review

Introduction

This chapter is concerned with reviewing the relevant literature. It aims to provide knowledge about the topic before going through the processes of the research.

2.1 Digital Media

2.1.1 Definition

Peddie (2001) suggested that defining Digital Media depends on what we want from Digital Media or what kind of Digital Media we are talking about. He suggested that Digital Media traces its roots back to a couple of sources, depending on our point of view. The first source is the notion of electronic media starting with analogue television, in terms of a full user experience. The other place is the advent of computers with different applications and different interactive media. Another definition of Digital Media was given by Peddie suggested that Digital Media can be anything from content on a CD or a set-top box, to the bits streaming through the ether or over fibre.

Caputo, Guelph, Wolf and Borho (n.d.) agreed with Peddie definition of Digital Media. They explained using the term Digital Media to describe traditional Media (Television, newspapers and radio). They said that that digital media are not really different from analogue recorded media, which have been around for decades. They suggested that what is unique now is the ability to easily create, copy, and transmit digital media. They can be streamed, downloaded, or stored on media such as CD or DVD. Caputo et al. implied that Digital Media is similar to traditional media that we are familiar with, but with a new digital version that provides more interactive options for the audience. Digital Media adds new touches to traditional media. The popularity of the digital forms in media has increased media consumption more than ever before.

According to Caputo, Guelph, Wolf and Borho, the recent popularity of mobile devices, such as iPods, allows audio and video to be downloaded and experienced anywhere, anytime. These devices also increase the use, as well as the hype, around digital media.

Caputo, Guelph, Wolf and Borho explain how digital enhancement added to traditional media helps in education. They say that the capabilities of Digital Media in

education increased very fast, and that awareness of using these capabilities also increased.

There are other authors who suggest that digital media have defining ingredients that lead to the full meaning of Digital Media. "…the defining ingredients of Digital Media are the use of computers in creation, transmission, and/or reception of human symbols. More simply, digital media involves computers in the process of human meaning-making" (Messaris 2006, p. xvi).

All the definitions agree that Digital Media refers to audio, video, photo content and other forms that have been encoded digitally and the new phenomenon introduced by digital media that is human interaction.

Messaris (2006) extended defining Digital Media by explaining encoding data. Encoding is the main step in digitalizing data. He said that encoding content involves converting audio and video input into a digital media file or to digitally record videos and images. He, also, said that the encoded data in Digital Media can be easily manipulated, distributed, and rendered by computers, and is easily transmitted over computer networks. Messaris explained that Digital Media is not just for representing and sharing data. In fact, it goes further to create art works and visual images like animation, movie making, web development, photography and many other aspects that are found in the world.

2.1.2 Digital media birth and development

Peddie (2001) gave his point of view about the root and the origins of Digital Media. He asked a very important question about where Digital Media comes from. Peddie suggested that the technology for digital media devices comes from many sources. He mentioned some of these sources like PC graphic controller, audio parts, DSP chips, TV subsystems and communication. Peddie explained that the term Digital Media has multiple origins. These origins are represented in different forms of technology. The conclusion by Peddie was that Digital Media is not a term that explains an individual unit. Digital Media was born from different digital and technological forms.

Team14 (n.d.) also provided an idea that explains how Digital Media evolved and developed from traditional media. They explained how in earlier times with traditional media forms, messages were once distributed by one particular source to their audience. Then, the audience gathered their sources through a certain form of distribution, whether it was newspapers, magazines, radio, or television. According to

Team14, publishers had a great source of power and absolute control over the information distributed and how it was perceived by the public. However- and after the Digital revolution- this power and the absolute control over information started to move gradually from the publishers to the public.

Team14 , continued explaining how is it different to gain information after the emergence of Digital Media today. They explained how the information distribution began to drastically change and develop with the rise of computers and, more importantly, the Internet. Gaining information became easier, and access to knowledge became less controlled.

Earnshow (2001) talked about the development of Digital Media field. Earnshow had a unique idea about Digital Media development in our world today. He suggested that there are some factors that accelerate digital media developments:

Moore's law

This law is considered by Earnshow to be the first step to the current Digital Media revolution. According to Earnshow, Moore's Law is a computing term which originated around 1970; the simplified version of this law states that processor speeds, or overall processing power for computers, will double every two years. Also, he explained that data traffic is expected to grow 10 to 20 times and be 90% of all traffic, with Internet/IP access becoming the norm.

"...British Telecommunications Laboratories expects to see 24 million handsets in use by 2003. Increasingly, mobile and wearable devices will provide access. Advancing miniaturization will provide 1-mm imaging and camera devices that can explore information at the nano level" (Earnshow, 2001, p.2)

Earnshow suggested that this law is one huge element in developing Digital Media in the world because Moore's law provides its validity in recent years. This law gives a promise to the world that Digital Media will continue to cover all the aspects of our lives and the need to develop Digital Media will increase according to that.

Increasing reality

Earnshow suggested that connecting real-world data to computing is vital that data is connected to devices capable of handling huge quantities of data effectively. Earnshow

suggested that the most important thing is to connect Digital Media to real world events. Earnshow explained that this won't involve simply faster rendering or more accurate modelling, but digital media information that represents the real world and synchronizes with it. According to Earnshow's suggestion, the demand for Digital Media will increase because of its direct connection to our lives. This increase in demand for Digital Media will lead to rapid development in this sector which will increase demand for digital media even more.

Ubiquity

Ubiquity, according to dictionary.com, means "....the state or capacity of being everywhere, especially at the same time; omnipresence...." ("Ubiquity" def.1)

What Earnshow means by ubiquity in Digital Media is the absolute existence of Digital Media everywhere. Earnshow suggested that current trends in technology are about to be less–in-your-face and more in the background (invisible computing). That means every technology depends on other kinds of technologies that are not in our sight to work properly. Earnshow said that this kind of interdependency will lead to increased ubiquity of devices and interfaces in a very rapid way. In this way, the world lifestyle would be almost digital, and consuming digital forms would be unavoidable.

Convergence

Earnsshow suggested that convergence is one of the main reasons of Digital Media development in the world

According to Covell (2000), digital convergence is the merging of digital communications technology, computing and digital media. Covell explained that In the first phase of this phenomenon, which is called Internet computing, the Internet has taken centre stage in a new world of global interaction and information sharing, with an emphasis on the narrowband exchange of text, numbers and images. The Web, e-mail and databases are the foundation technologies of this phase of digital convergence.

2.1.3 The future of digital media

Team14 (n.d.) talked about the future of Digital Media. They gave an example of news about how Digital Media has changed and will continue to change with time. They said that digital media in the news continues to grow very fast. Although traditional news media will most likely never be fully extinguished, they will need to further adapt to the

times. Team14 explained that traditional news media has a very hard mission ahead of it if it wishes to stay alive. Traditional news media need to work with search engines to fight against news sites provided for free, and rely more on advertising if they want to earn money today.

Team14 suggested that Digital Media has eliminated many cultural boundaries and will continue to do so as other less-developed countries become more reliant on technology on a very large scale.

Team14 explained how powerful Digital Media is in general. They mention how digital media has provided instant communication between people all over the world and help in a very obvious way to make the world a small village. Not just that, but Team14 explained how different forms of digital media make this interaction easier than before, and really fun for everyone around the world. Today, knowledge is for every one with the help of Digital Media. They also mentioned that technology and the sharing of photographs on the Internet, for example, have found ways past language barriers and illustrate the real meaning of globalisation: "...Thanks to digital media, we are now entering a world that is culturally globalized" (Team14, n.d., p1).

2.1.4 Digital media market

According to Messaris (2006), Digital Media covers many aspects. These aspects include decoding data or using digital technology to create means to represent and share data. Also, Digital Media is about creating art works and visual images like animation, movie making, web development and photography. Here, I am talking about Digital Media and Digital Design as a representation of the Digital Media Market.

Digital cinema

The term digital cinema refers to more than just digital motion picture imaging, special effects, or editing. It's a term that properly encompasses the digitization of each aspect of the filmmaking chain from production and post-production (editing) to distribution and exhibition (projection) (Belton, 2012, p. 3).

From Belton's definition of digital cinema, it appears that the field of Digital Cinema is a huge sector in the global market of Digital Media. After the appearance of Digital Media, film cinema around the world changed to digital cinema that is enhanced by different types of Digital Media.

In his article, Belton explained how the digital revolution started in the cinema industry and how this revolution made the cinema industry a main sector of the Digital Media market in the world. Digital technology was employed in the late 1970s with the development of computer controlled cameras to film special effects sequences in films such as the 1977 movie Star Wars (Belton, 2012, p. 4).

The next step of Digital Media development in cinema, according to Belton was in 1982. He mentioned that in 1982, Industrial Light & Magic developed technology for creating images on a computer for the Genesis sequence in Star Trek II: The Wrath of Khan. However, according to Belton, the completion of the so-called "digital revolution" in the cinema occurred in June 1999 when Phantom Menace was distributed and exhibited in electronic form.

The market of Digital Cinema appeared in order to rescue cinema from fading in the middle of the digital revolution. After the digital revolution, it was easy for people to have alternatives for watching movies and narratives at home rather than watching them in a cinema. According to Miller (2000), in order to keep people coming to the movies, cinema people recognized that they must add creative ideas to the cinema theatres that would create a point of difference from watching the movie at home. Miller said if that means upgrading resolution every few years as technology permits, so be it. He implied that cinema people should do anything to rescue their industry. It's important for them to be at the top of the list of entertainment providers.

The digital enhancements in cinema makes movie editing cheaper than ever before, and the market of digital cinema wider than it has ever been. According to Hou (2008), the Motion Picture Association of America (MPAA) estimates the average film distribution cost in 2001 was $3.7 million USD per feature film, which accounted for about 12% of the total film marketing cost. By using digital means, the MPAA estimated that about 25% of that figure can be cut, which translates to roughly $650K USD in savings per feature. The digital enhancements in cinema made a huge development in the Digital Cinema market in the entire world, but cheaper production never means less profitable. (Hou, 2008)

The word cheaper here is describing the situation relatively. Yes it's cheaper than before, but still cost a lot. According to Hou, even though digital editing is cheaper and more efficient than physically manipulating the film strips, converting the movie content to and from a digital format for editing costs a lot of money and processing time. Hou (2008) said that, for example, at a rate of 24 frames per second for a typical

movie of two hours, transferring hundreds of thousands of 35mm frames requires on the order of $200,000 USD, and this does not include additional costs for employing special equipment and the necessary technicians. "...Furthermore, transforming movies back into analogue form after digital enhancements would take further processing time" (Hou, 2008,p.2).

Digital design

Digital design is another market that is under the title of the digital media market. According to Schuldt (n.d.), digital design, a term used to describe a wide variety of computer-related skills, includes work in fields such as web design, digital imaging and 3D modelling. The term can further be expanded to any digitally-created visual media.

Schuldt (n.d.) added that digital advertising and web design firms compete with individual designers to sell their expertise while artists use the same digital media to express themselves. (.......Amassing skills in digital design has endless benefits ranging from a source of income to a fulfilling weekend hobby)(Schuldt, (n.d.),p.2).

The market of digital design today is playing a very important role in the global economy. We can see how the designers Bayler and Stoughton (2001) emphasized the importance of the digital design field. Bayler and Stoughton said that they are no longer simply painting pictures on the screen here. They are creating infinitely flexible "windows of value" between companies and their customers. (... As designers, we occupy the middle ground between these two sides in the new economy, ensuring that each mode of access is met with relevance across all the new channels and through all the new devices.) (Bayler & Stoughton, 2001, p. 35)

According to Bayler and Stoughton, a November 2000 report by high-tech consultants Strategy Analytics observed that by the end of that year, 52 million US homes, or 50% of the total of US homes, would have an Internet PC, and 6.3 million (6%) would own one or more online appliances, such as interactive TVs, online games consoles, and Web terminals (dedicated PCs with functionality limited to Internet access). Although this report is 13 years old, it shows that the consultants had a futuristic vision for a Fast growing sector. The growth of the digital media market depends on the demands of digital media products.

Baldwin (1996) and Kelly (1998) believed that the development of the Digital Media Market is Instantaneous and that every day there are new applications of Digital

Media. The authors said that there is a common perception amongst commercial analysts of new media that the sector will continue to grow. Baldwin (1996) and Kelly (1998) also believed that there will be some areas that will be affected directly: communications, media, electronically based cultural industries, and commerce. "…Thus, the first two areas of frontline impact should be: first, media, communications, and the electronically based cultural industries; and second, businesses going on-line (the domain of e-commerce and B2B)" (Baldwin, 1996, p. 1).

2.1.5 Digital media tertiary education

Because this research is dealing with the academics and students who are providing their point of view about the situation of unemployment and the reason behind that, it was important to talk about the Digital media tertiary education. That is in order to give an overview about situation they are talking about.

Digital Media teaching should be self-teaching because self-teaching and collaborative work are the suitable ways of teaching materials like digital media materials. That is because such materials depend on practice to enhance the skills (Mamber, 1997, p. 2).

Mamber (1997) also suggested that Digital Media courses should shift in their teaching methods from lecturing and grading to collaborating and co-developing. To support his opinion about the importance of self-learning and collaborative work in teaching Digital Media, he used his own experiences of using Digital media for teaching film studies. Member emphasized that he learns from his students even more now than before and that is because they all participants in exploring new ways of conceptualizing and doing digital things.

Digital media courses should conceptualize the nature of technology, which means that these courses should be designed in a way that considers the technology as the mediator in the education processes. The world does not need people who can use digital media software rather than people who can create and manipulate new arts with the assistance of this software. Digital Media is a field that is renewing itself every day (Mamber, 1997, p. 3).

Marx (2000) emphasised similar points to Mamber's points about teaching digital media. Marx gave another model and a clear example about how to teach digital Media at universities. He explained the role of design studios in teaching Digital Media is to teach the students how to use the technology, and the role of theory taught in

classrooms is to justify the use of technology. He gave a clear idea about how design studios and theory classes in teaching digital materials are complementing each other. He emphasized that the primary responsibility of the design studio is the creation of content. However, it is the implementation of theory and critical analysis which should be the core concern of studio instruction.

Marx discussed the idea whether students should learn how to use software first then start to develop their ability to conceptualize digital content in different ways, or to learn both at the same time. In order to examine this idea, Marx clarified how digital design requires teaching methods that are different to other fields. However, Marx (2000) took a different perspective than Mamber's to support this point. Marx's perspective implies that there are two obvious ways of teaching digital design: a course adjunct to a design studio or a course offered independently of a design studio. Marx (2000) concluded his argument with a complete agreement with Mamber's points of view about how teaching digital tools should be separated from using them in creation. He believed that there needs to be productive cooperation between the Department of Computer Sciences and the Department of Art and Design at the universities to complete the process of digital education perfectly.

Another suggestion about how to teach digital media has been presented by Forwood (1979). Forwood, from the Department of Architectural Science at the University of Sydney, Australia, described his own experience in teaching digital media at the University. Marx agreed with Forwood that teaching methods of design in the early stages is necessary to ensure that students are properly stimulated to create new arts when using these methods.

2.2 Oman Economy and Unemployment

Because this research looked at Omani digital media market demands and unemployment, it is important to describe the Omani economy and the current situation of unemployment in Oman in general. This is in order to see the problem of unemployment among Digital Media graduates in the wider scope of Omani society.

2.2.1 The economic nature of Oman

Having borders with Saudi Arabia and the United Arab Emirates in the west, and the Republic of Yemen in the south, the Sultanate of Oman occupies the south-eastern corner of the Arabian Peninsula. Oman shares the responsibility for the Strait of

Hormuz – the Gulf's key gateway to Iran. The Indian Ocean is Oman's primary gateway to the world (Ministry of Information, 1999). As a result, Oman occupies a strategically important geographical location for international companies wanting to do business or considering access to Asian, Arabic and African markets (Selway, 1997a).

In spite of such a strategic location, economic development in Oman was at a standstill until 1970 when Sultan Qaboos bin Said became the ruler. In the last three decades, Oman has been transformed from a medieval country to a modern state with a relatively developed infrastructure (Nicholson, 1991; Miller, 1997). Although Oman is not as rich or as Abundant in oil resources as its neighbours such as Saudi Arabia and the Emirates, the Omani economy is buoyant as a result of the recent modernisation programmes (Owen, 1993; Selway, 1997b).

Aycan, Alhamdi,Davis&Budhuar (2007) suggested that Oman "in common with other Middle Eastern states has been heavily reliant on expatriate workers both for advanced technical and professional expertise and for manual labour." Ghailani and Khan (2004) argue that, "The government of Oman sees private sector as a vehicle of growth and development, where the larger employment generation and absorption of Omani population in gainful employment is more likely to occur". Al-Hamadi, Pawan & shipton (2007) further emphasised the role of the private sector when they described a term called Omanisation. This term describes a process adopted by the government that aims to replace the foreign expertise in the Omani private sector with Omani workers. They add that" through Omanisation", it is anticipated that the Omani nationals, rather than the expatriate workforce will, in the long term, promote efficiency and effectiveness in both the public and the private sectors.

2.2.2 The relationship between the education system and unemployment in Oman

Unemployment in Oman is mostly confined to first-time job seekers. The age at entry in the job market is between 15 to 20 years. At this young age, most Omanis find it difficult to get a job as they do not have professional or vocational training. There is a very low level of conformity between labour market needs and education system output. Employers often refrain from employing Omanis due to their inadequate technical and vocational expertise. Sometimes preference is given to expatriates due to lower wages and allowances and their readiness to work under any situation (Das, 2010).

The growth in population has outstripped the capacity of higher education institutes and the job market. This has created two main challenges for the government -

unemployment and provision of opportunities for higher education. These economic and social dilemmas have been key factors in pressuring the government to look at entrepreneurship and self-employment, especially among the young, as key components in tackling these challenges and diversifying the economy (Al Moharby & Khan, 2007).

According to Das (2010), Oman is a labour-importing country, drawing most of its foreign work force from Asian countries such as India, Bangladesh, Pakistan, and Sri Lanka. At the same time, however, Oman is a "young" society; an estimated 41.2% of its population is under the age of 15, and 53.9% is in the 15-to 60-year-old bracket. Statistics show that every year, almost 30,000 students successfully complete their secondary schooling and are ready to enter the job market. The tussle in the job market starts at this juncture, as most young Omanis entering the job market find it difficult to get a job. The reason for this is the lack of vocational/higher education and/or the lack of practical work experience compared to expatriate labourers working in similar positions. This type of unemployment among local youth poses a major problem for Omani citizens and their government.

Tabulawa (2007) and Williams (2007) suggested that graduate employability is changing because of several developments: a knowledge-based economy, information technology, globalization, and the declining role of traditional university credentials. These factors have shaped employment outcomes and have led to changes in the demands made by the labour market, and thus may also be changing the traditional key relationship that is our focus here. For example, current working environments require graduates to be more flexible in order to keep up with the continuous changes and developments inside and outside of an organization.

The lack of practical work experience among youth is a very big problem, not just in Oman, but even in other Arab countries. Almost half of the Arab chief executive officers believe that the education system produces an unqualified national work force (Arab Human Capital Challenge, 2009). According to Al-Shanfari (2012), the education system in Oman has been accused of not encouraging innovation and creativity, but rather promoting memorising and imitating. There is also no clear strategy for encouraging creative methods of teaching among teachers. Al-Shanfari (2012) gives example of business courses taught at an institution of higher education in Oman. He says that currently, there is no business-related knowledge in the school curriculum, only an optional basic maths and economics course for the final secondary school year. Sultan Qaboos University is the top academic organisation and the only public

university in the country. It currently offers two courses in entrepreneurship for undergraduate students and one course in its MBA programme. There is currently no small business or entrepreneurship development centre in any of the public or private colleges (Al-Shanfari, 2012, p. 3).

The key relationship between higher education and the labour market can be interpreted by looking at the extent to which higher education provides graduates with knowledge and skills to match employment needs (Allen & DeWeert, 2007). This basic relationship was expanded to include issues such as curricular changes that would enhance employment opportunities, graduate supply and new technology, the transition process between education and work, and career security for graduates (Teichler, 2007).

Furthermore, with the development of mass higher education and the expansion of a global economy, graduates have to compete for jobs not only with the increasing number of graduates in their own country, but also with their counterparts in various parts of the world. They may also expect to work abroad in international companies. The most critical issue is that graduates should now expect to work in ''a high school job'' (Tyler et al., 1995) or to spend a period of time to find a ''suitable'' job, following the increase in unemployment among university graduates. However, Tomlinson (2007, 2008) have found that the outlook for graduate career prospects and employability remains reasonably strong, at least in developed countries.

Researchers expected that Oman will soon produce three times as many college graduates each year as there are jobs available in the country. Already, the annual number of college and university graduates exceeds the number of jobs that become available. Moreover, demand for higher education is high, and the government plans to develop an economy that depends on highly-trained citizens rather than national oil revenue; its goal is to have at least 50% of those in the 18–24 year old age group attend post-secondary education by the year 2020, up from the current 19% (Al-Barwani, Chapman & Ameen, 2009).

A very important factor that leads to employment among graduates is their choice of study field and their expectations. Researchers have frequently compared fields of study to understand how a student's choice of field affects their employment after graduation. Walters (2004) indicated that research conducted in Canada and the United States about the impact of the fields of study has shown that graduates of the more ''generalist'' liberal arts programmes, such as the fine arts, humanities, and social sciences, generally have poorer labour market outcomes than do graduates of applied

and skills-oriented programmes. Those in the latter fields are thought to obtain jobs with higher wages because they later utilize the skills they learned in school, whereas liberal arts graduates are believed to work for lower wages in jobs that do not require postsecondary training. Similarly, Garcı´a-Aracil (2008) argued that specific fields of study determine economic returns in the labour market in different ways. In general, graduates from fields directly related to prestigious professions or higher economic demands, such as medicine, law or engineering, achieve higher incomes than those from fields of study related to education, the arts, or the humanities. However, Walters (2004) argued that, while technical skills are important because of the new knowledge economy, they are not the only skills that employers demand. In fact, given the rapid technological change, it may be risky to acquire overly technical skills.

Al-Hamadi et al. further suggested that in order to avoid unemployment in certain occupations and surplus in others, the government initiated measures such as setting control procedures on expatriate labour coming into the private sector, particularly in occupations that can be easily Omanized; preparation of suitable manpower planning that meets the needs of the private sector; improving working conditions of the private sector; supporting willing Omanis to establish small commercial projects; and, being entrepreneurs in their own field of interest by offering guidelines and suitable incentives.

2.2.3 Digital Media in the Omani Local Industry

Because this research investigated the problem of unemployment among Digital Media graduates from the Colleges of Applied Sciences classes of 2010 and 2011, it is really important to discuss the local industry of Digital Media in Oman as an important factor that needs to be identifying in order to cover the topic of the research properly. An overview of the Digital Media industry in Oman is been presented at this stage. The examples used by the researcher here are Knowledge Oasis Muscat and Oman Television.

2.2.3.1 Knowledge Oasis Muscat

It is relevant to discuss Knowledge Oasis Muscat (KOM) when introducing the Digital Media industry in Oman. That is because Knowledge Oasis Muscat is considered to be the first government project established to support the small businesses of technology in Oman, according to KOM (2006). KOM explains that the main mission for Knowledge Oasis Muscat, an Omani seed funding organisation, is to support technology-oriented

businesses. This organisation is supported by the government to give a chance for individuals to start their own business in the area of technology. Organisation provides these individuals with office place, technology and financial support. All supported businesses have a chance to work from offices in the Oasis for a while until these businesses become strong enough to be independent. Digital media is one of the fields that this Oasis supports. A significant number of individuals work with this organisation to achieve good results. (KOM,2006)

According to Global Arena (n.d.), which is dedicated to supporting technology-oriented businesses, Knowledge Oasis Muscat brings together a diversity of enterprises from industry niches as varied as M-commerce to international call centres. Global Arena added that KOM is home to blue chips such as Oracle, Hewlett Packard, Motorola, Microsoft, NCR, and Huawei, as well as dynamic hi-tech start-ups. KOM is an ideal environment to grow a hi-tech company.

2.2.3.2 Oman television

According to Oman TV (2002), Oman TV started in 1974; four years after Sultan Qaboos started ruling the country. For the Omani Digital Media students, Oman TV represents the main industry of digital media in the country. Oman TV (2002) added that Oman had one TV channel until 2006 when Oman TV2 started. After that, the government allowed the private sector in the country to invest in the media and the commercial channels appeared. However, the industry is still very limited, and the capacity of the industry is still comparative small.

Summary

This chapter reviewed the relevant literature for the topic of the research. It started with introducing the term of Digital Media. It gave information about the development of the term and its future. Also, the chapter provided examples of Digital Media Markets in the world: Design and cinema. This chapter presented the opinions of some educators and authors about the tertiary education of Digital Media. After that, this chapter presented some writing about the Omani economy and the situation of unemployment in Oman. Also, it presented information about the Omani local industry of Digital Media.

Chapter three: Methodology and Research Design

Introduction

This chapter provides an overview of the research methodology and research design of this study. A detailed description of the methodology is provided and enhanced with the reasons behind choosing such methodology. Also, the chapter describes the triangulation and mixed methods approaches used in this research. Then the practical part of the thesis including data collection methods and analysis is outlined. This chapter concludes with explaining the challenges involved in this research.

3.1 Definitions

"…It is always important to adopt an appropriate research methodology in order to perform an extensive examination of all relevant areas "(Decrop, 1999).

The definition of a methodology is a domain or a map while a method refers to a set of steps to travel between two places on the map (Jonker & Pennink, 2010).

The research design represents the first step in organizing and planning the research process, once the research idea and research hypothesis have been clearly outlined (Toledo-Pereyra, 2012). A research design then becomes crucial to connect a methodology and an appropriate set of research methods in order to address research questions and/or hypotheses that are established to examine social phenomena (Wahyuni, 2012).

3.2 Data Collection

The data collected in this research was sourced from different areas. These areas were:

- The Academics working at the College of Applied Sciences, Nizwa.

- Digital Media students at the College of Applied Sciences, Nizwa.

- Digital Media professionals at the local Omani industry of Digital Media (Oman TV).

- Digital Media graduates from the Colleges of Applied Sciences Classes of 2010 and 2011.

The data collection occurred in the Sultanate of Oman from September 2012 to October 2012. It was divided between two cities there: Muscat and Nizwa.

In this research, I adopted an approach that is called triangulation. Triangulation is an approach for data collection and analysis that uses multiple methods, measures, or approaches to look for convergence on product requirements or problem areas (Chauncey, 2006).

The triangulation of a single phenomenon could be methodological triangulation, data triangulation, investigator triangulation, or theoretical triangulation (Thurmond, 2001). Shih (1998) explains the four types of triangulation as following:

1. Data triangulation involves the use of multiple data sources to obtain a variety of views about the topic. Jack and Raturi (2006, p. 346) point out that data triangulation would include space, time, and persons.

2. Investigator triangulation demands participation of two or more research investigators who share an interest in the same phenomenon under study.

3. Theoretical triangulation occurs in the conclusion to interrupt and analyse data using more than one theoretical scheme (Shih, 1998; Jack & Raturi, 2006).

4. Methodological triangulation involves either the 'within method', which uses more than research techniques to collect data (e.g., interviews and surveys), or the 'between method', which uses both quantitative and qualitative approaches to a particular study to investigate the same units. This is discussed by Denzin (1989, cited in Shih, 1998, p. 9).

In this research, I am applying two types of triangulation: data triangulation and methodological triangulation. The triangulation I am going to explain here is methodological triangulation.

3.2.1 Methodological triangulation

The main reason for applying the methodological triangulation approach in this research was because I was using two approaches to investigate the research topic. These two approaches are qualitative and quantitative approaches. These two approaches are mixed with each other and unified in one approach that is called mixed methods approach.

Leech and Onwuegbuzie (2009) state, "…mixed research methods represents research that involves collecting, analysing, and interpreting quantitative and qualitative data in a single study or in a series of studies that investigate the same underlying phenomenon".

The mixed methods research involves using both qualitative and quantitative approaches within one or more of the following four components in a single research study: (a) the research objective; (b) type of data and procedures; (c) type of analysis; and, (d) type of inference (Leech & Onwuegbuzie, 2009). Multiple research methods are used due to a variety of reasons as discussed below.

In this research, I am applying the mixed method at two stages: type of data procedures and type of analysis. I am applying mixed method in data procedures because I am using two different sources for data collection: interview and survey, which will be explained later as data triangulation. Also, I am using the mixed method approach in the analysis because I am using two different analysis techniques: inductive and deductive.

In the quantitative analysis, deductive thinking will be employed so theory will be the starting point for formulating a hypothesis which will be examined in the research (Boejie, 2010). Conversely, in the qualitative research, the inductive process is the key element which means that the social phenomenon will be investigated in order to "... find empirical patterns that can function as the beginning of a theory" (Boejie, 2010, p. 22).

Mayring (2000) suggested that a qualitative approach would retrieve methodological strengths of quantitative approaches and widen them to more methodological controlled analysis of content within their context of communication, "... following content analytical rules and step by step model"(Mayring,2000, p.3)

There is a major difference between fully and partially mixed methods. While in partially mixed methods, the quantitative and qualitative techniques are not mixed within or across stages, the fully mixed methods require mixing of quantitative and qualitative techniques in one or more stages of the research process (Leech & Onwuegbuzie, 2009).

Combining both approaches in this study would offer meaning and completeness to the findings (Marshall & Rossman, 1995; Gray & Densten, 1998), clarify the nature

of the researcher's intentions (Bryman, 2006; Shih, 1998), and provide a clearer understanding of the problem (Thurmond, 2001, p. 54).

In this research, I used partially mixed methods. That is because I am not combining the qualitative and quantitative approaches in all stages of the research. However, I am using them separately in different stages to use the findings of the quantitative approach to support the data of the qualitative approach, after analysing them using conductive and inductive analysis.

The qualitative approach is represented in using the qualitative interview method, and the quantitative approach is represented through using the survey method in the research. Using these two methods is called the data triangulation approach.

3.2.1.1 Data triangulation approach

I applied data triangulation because I used multiple sources in context to each other and to the guiding research question. These sources are qualitative interviews and surveys.

Qualitative Interview

The first method I used in the research is a very well-known method among researchers and academics; that is the method of qualitative interview. The interview in this research represents the qualitative part in the mixed methods approach being applied. The qualitative interview seeks to describe the meanings of central themes in the life of the subjects. The main task in interviewing is to understand the meaning of what the interviewees say. Interviewing, when considered as a method for conducting qualitative research, is a technique used to understand the experiences of others (Seidman, 1998).

Interviewing differs from other methods of data collection in that it is often more exploratory in nature and allows for more flexibility. Interviewing stems from the desire to know more about the people around us and to better understand how the people around us view the world we live in. At the heart of interviewing research is an interest in other individuals' stories because they are of worth.

Interviews may either be formal, using a structured interview schedule, or informal, with the interviewer being able to follow up points made by the interviewee. Interviews may also provide either quantitative or qualitative data. Doubts have been expressed concerning the reliability of the interview as its social nature can lead to various sorts of unreliability ("Interview" def.1)

Rubin and Rubin (1995) referred to qualitative interviewing as "the art of hearing data", requiring "intense listening, a respect and curiosity about what people say and a systematic effort to really hear and understand what people tell you" (p. 17).

Interviews are among the most familiar strategies for collecting qualitative data. The different qualitative interviewing strategies in common use emerged from diverse disciplinary perspectives resulting in a wide variation among interviewing approaches (DiCicco-Bloom & Crabtree, 2006).

"Qualitative interviewing begins with the assumption that the perspective of others is meaningful, knowable, and able to be made explicit" (Patton, 2002, p. 341).

Interviews are particularly useful for getting the story behind a participant's experiences. Also, the interviewer can pursue in-depth information around the topic. Interviews may be useful as follow-up to questionnaires with certain respondents, e.g., to further investigate their responses (McNamara, 1999).

In this research, I used a type of qualitative interview called semi- structured interview. Semi-structured in-depth interviews are the most widely used interviewing format for qualitative research and can occur either with an individual or in groups. Most commonly they are only conducted once for an individual or group, and take between 30 minutes to several hours to complete (DiCicco-Bloom & Crabtree, 2006).

By conducting semi-structured, in-depth interviews, the basic information collected was deliberately controlled to keep it relevant to this study's goals and boundaries (Decrop, 1999; Gray, 2004).

Choosing this type of interview to be applied in this research was very helpful because I was looking for in-depth data from the participants. Open-ended questions gave the participants the chance to express their thoughts and beliefs without any kind of constraints. It gave the opportunity to raise issues relevant to the subject of the research. On the other hand, this type of interviews allowed me, as a researcher, to control the conversation with the participants to keep it relevant to the goals of the research. Mainly, the qualitative interviews in this research were designed to pursue the answers needed to generate the data from the participants to achieve the goals of the research.

Sampling for interview:

According to Marcella (2007), the method of choosing your subjects for your study is called the sampling technique. The population is the large group in which you are interested. The group you want your study results to predict is the target population. The sample population is the subset to which you have access.

I divided the sample population for the interviews into three groups; these three groups were classified according to the current occupation of the participants. The first group was the academics working at the College of Applied Sciences Nizwa. I chose the CAS Nizwa academics from among the five Colleges of Applied Sciences becauseCAS Nizwa is the biggest centre of communication studies amongst all of these colleges. CAS Nizwa provides all the programmes of communication studies, including digital media. Another reason to choose the academics working in CAS Nizwa is a recommendation from the Ministry of Higher Education that the academics in CAS Nizwa would be able to provide me with the information I needed about the situation of unemployment among digital media graduates in the graduate classes of 2010 and 2011.

The second group of participants were current Digital Media students at CAS Nizwa. I chose this group in order to understand the students' perspective about the problem of unemployment among Digital Media graduates. I chose the students from CAS Nizwa because most of the data was collected from this College and that would make the data coherent and relevant.

The third group of participants was the Digital Media professionals within the local Omani industry of Digital Media (workers at Oman TV). I chose professionals working in Oman TV because Oman TV is a dominant organisation of Digital Media, well- known within Omani society.

The next step after identifying the participants' samples used for the interview, it's important to specify the sample size. For the interviews, I have chosen eight participants in total, with representation from all the groups selected for the research: two academics, two Digital Media professionals and four current Digital Media students. I chose a small sample size for the interviews because the interview represents the qualitative part in the mixed methods approach. Such a small number of samples in a qualitative approach would not create any problems at all because the small size samples are normal for qualitative research. Sample sizes in qualitative research are

typically small, in contrast to quantitative research (Sandelowski, 1986; Miles & Huberman, 1994; Morse & Field, 1996; Nieswiadomy, 1998).

The first interview was conducted with two professionals working in the local industry of Digital Media in The Sultanate of Oman. These two professionals are working in Oman TV. The questions of the interview were designed in a way that participants had the opportunity to express their thoughts freely and to expand on their ideas. The interview was designed in such a way in order to collect all the data needed and to collect more ideas that are relevant to the subject of the research. These interviews were conducted in the Oman TV building in Muscat City. All the questions were answered by the participants. The interviews were audio recorded and the researcher transcribed the interviews.

The second interview was designed for the Digital Media Academics at the College of Applied Sciences Nizwa. The design of the interview also aimed to investigate the subject of the research in a very detailed way. These interviews were conducted online and in the College of Applied Sciences Nizwa.

The third interview was designed for the current students of Digital Media at the College of Applied Sciences Nizwa. The interviews with the Digital Media students were conducted at the College of Applied Sciences Nizwa. All the interviews were recorded, and the researcher transcribed them.

Survey

According to Bialocerkowski and Grimmer (2005), survey (or questionnaire) tools are used frequently to collect research data. Surveys collect information directly from subjects and are administered either in a written format (such as email, post, Internet) or orally (e.g., face-to-face, videolink, telephone). They often use standard questions (items), which provide self-reported information. This information may be interval data (e.g., age, height), ordinal or nominal categorical data using pre-established known categories (e.g., Yes/No, or None/Some/Many, or country of birth), or free text where respondents write about experiences in their own words. This latter information is synthesised into themes.

The survey in this research represents the quantitative part of the mixed methods approach applied to this research. Surveys are an efficient and relatively straightforward

way of finding out about people's attitudes, opinions, beliefs, preferences, and behaviours. Whilst not particularly suited to exploratory work or establishing causal relationships, surveys are a useful mapping device. Unlike experimental designs, surveys have no interventions or planned changes, and there is none of the detailed background and contextual information that is so important in case studies. Surveys are characterised by the collection of small amounts of data in a standardised format, typically from a large sample (Kane, 2004, p.97-105).

In this research, I used the survey method to target the graduates of Digital Media classes (2010/2011). I used a web survey to reach all the participants. The web survey provider I used was SurveyMonkey.net. The main reason for using a web survey was the different geographical locations of the graduates from the classes of 2010 and 2011. Another important reason for using this web survey provider was because it provides good options for data analysis that are very helpful for accurate data and accurate analysis.

Sampling the survey participants:

Because the survey represents the quantitative part of the mixed method approach I am using, I increased the number of survey participants. That is because the quantitative approach should have a large number of participants compared to the qualitative approach (Sandelowski, 1986; Miles & Huberman, 1994; Morse & Field, 1996; Nieswiadomy, 1998).

The sample size for the survey was twelve participants. The survey was designed to target the job seekers from the 2010 and 2011- Digital Media graduate classes of the College of Applied Sciences Nizwa.

Survey design

Because the survey is the quantitative application of the mixed method approach used in this research, it was important to design the survey in a way that was based on a hypothesis. This was in order to apply the inductive analysis techniques to the data that came out of the survey. The hypothesis that was the basis of the survey design is that there is a situation of unemployment among the 2010 and2011 Digital Media graduates from the Colleges of Applied Sciences.

The survey consisted of fourteen questions. These questions aimed to cover four main points. These points were:

1. The experiences of participants in seeking jobs in the local industry of Digital Media in Oman.

2. Evaluation of the participant's skills and knowledge compared to the demand of the local industry.

3. The level of industry awareness of their specialisation.

4. The efforts of the Colleges of Applied Sciences to support the job seekers from their own Digital Media graduates.

The survey was posted in September 2012. The participants had two months to complete and submit their answers to the survey questions.

3.2.2 Data Analysis: Deductive and Inductive

In order to analyse the data, I used five techniques for analysis that were suggested by Baty (2009). These techniques are:

Deconstruction:

At this step, I am breaking down the data components into several pieces according to the subjects of the research.

Manipulation:

It's about rearranging and re-sorting the data I have without changing it; that would be necessary in order to relate the participants' opinions about specific topics to each other in qualitative research.

Summarization:

It's about collecting similar data that relates to each other, and organizing them under one title. It is a very useful technique in both quantitative and qualitative methods.

Generalization:

It's about taking specific data from all sources and using them to make a clear statement.

Abstraction:

It's about striping out the particular. Extracting what I want from the data, so more general information about the research appears to the surface like taking the common opinions in the qualitative method and the total of the number of something in quantitative method.

Synthesis:

Synthesis means the process of drawing together concepts, ideas, objects and other qualitative data in new configurations, or to create something entirely new. That is what would answer the main question of the research.

At this stage, it's important to explain how I apply those five techniques on deductive and inductive analysis.

3.2.2.1Deductive Analysis

Deductive analysis is applied to the quantitative data in the research. That is because that data is collected based on the research hypotheses (Boejie, 2010).

Deductive analysis is used when the structure of analysis is operationalized on the basis of previous knowledge, and the purpose of the study is theory testing (Kynga & Vanhanen, 1999). A deductive approach is based on an earlier theory or model and therefore, it moves from the general to the specific (Burns & Grove, 2005).

The deductive analysis in this research is applied to the data of the survey. This analysis aims to examine the validity of the hypothesis that says there is a situation of unemployment among Digital Media graduates from the College of Applied Sciences graduate classes of 2010 and 2011.

The figures and the responses from the survey are represented in charts. The outcome data aims to either prove the validity or the invalidity of the hypothesis. The result of this analysis will be used later in supporting or criticising the results and the main themes that arose from the interviews.

Also, to ensure that the five techniques of analysis suggested by Baty (2009) were implemented in the survey analysis, I used three steps to analyse the survey. These steps are as follows:

Quick Review

The first step of analysing the survey was to do a quick review of the responses. During the quick review, I was looking at every question to see if the results "made sense". The quick review of the data can help me quickly understand if the people that respond are the right sample people or even the responses are related to the data I am looking for or the subject of the research.

Also, the quick review should highlight any problems with the survey instrument. For example, are most respondents answering all of the questions? Are they taking the questions seriously? Otherwise, the invitation for them to participate in the survey may not have been enough motivation for students to complete the survey to the best of their ability.

Editing and Cleaning

Editing and cleaning data is a very important step in analysing the survey. At this stage care is needed when editing survey data so that I do not alter or throw out responses in such a way as to bias my results.

The next step is to collect the data that was edited and cleaned and represent them as general descriptions. The descriptions of each question`s response will be gathered according to the common themes extracted from them.

Each edited figure that may support the data collected will be presented and described to follow the pattern of the responses.

Data presentation

At the last step of analysing the survey, I presented the data I gained from the survey in a thematic way that showed the purpose of all of the questions. I am presenting the responses, the figures and numbers that come out the survey that would support my conclusion.

3.2.2.2Inductive analysis

Inductive analysis was applied to the data gained from the interviews. An approach based on inductive data moves from the specific to the general, so that particular instances are observed and then combined into a larger whole or general statement (Chinn & Kramer, 1999). The inductive data analysis in this research aimed to investigate the reasons for unemployment among Digital Media graduates from the

Colleges of Applied Sciences. In order to apply inductive data analysis, I applied the five analysis techniques suggested by Baty (2009).

The semi-structured interview design was a great help in this process. That is because this kind of interview design gives the participants the space to express their thoughts freely and, also, it gives the researcher the opportunity to find new themes and new topics that may be relevant to the main subject of the research.

Once all the interviews had been transcribed or the notes written up, the researcher reviewed the data in order to identify common, recurrent, or emergent themes. Then, a second person assisted the researcher by reviewing the transcripts and notes to bring a fresh perspective as this may confirm the themes, lead to new themes, or a discussion as to the interpretation of the information. This is also where the researcher could discard information that was not relevant to the research hypothesis.

The researcher then looked at the data to see if there were similar traits between the respondents who presented the same themes during the interview. For example, the researcher wanted to see if there were demographic (age, sex, household size, income, etc.) or pre-existing knowledge and attitude traits that lead to themes recurring. In that case, analysing patterns allowed the evaluation to move from a more descriptive process to an analysing process.

The final step was to present the results of the analysis by identifying patterns, identify what this meant for the project, and decide what could be done next to improve or build upon the responses.

Statistics Review

In this research, I reviewed statistics provided by the Ministry of Manpower and the College of Applied Sciences Nizwa.

The statistics provided by the Ministry of Manpower showed the number of Digital Media graduates from the College of Applied Sciences Nizwa classes of 2010 and 2011 who were registered as either workers or job seekers. Both genders were represented in the statistics. Because the Ministry informed the researcher that they could not exclude the graduates of 2012 from the statistics, the statistics provided included the classes that graduated in 2010, 2011 and 2012 (one class per year, for a total of three classes).

The statistics provided by the College of Applied Sciences show the number of Digital Media graduates from the two genders who graduated from the College of Applied Sciences Nizwa in 2010 and 2011.

The main purpose of reviewing these statistics was to compare the number of Digital Media graduates from the classes of 2010 and 2011 that were registered in the College of Applied Sciences Nizwa to the number of Digital Media workers in the local industry who were registered as Digital Media graduates from the College of Applied Sciences. This process aimed to measure the capacity of the Digital Media industry tocreate positions for Digital Media graduates and to measure the degree of unemployment among Digital Media graduates.

In order to get these statistics, it required the Auckland University of Technology to contact the Ministry of Higher Education to inform them of the researcher's research aims in Oman. Then, the Omani Ministry of Higher Education issued an official letter that was sent to all organisations in Oman that the researcher would be in contact with. This was done in order to facilitate the researcher's research goals in the country.

Limitations

During the data collection period, the researcher faced some difficulties. One of these difficulties was the slow communication response times between the organisations in Oman even contacting these organisations via telephone or e-mail was almost impossible because they rarely replied to messages.The lack of timely communication meant there was a possibility the researcher would exceed the time allowed for the period of data collection, so then she started contacting the organisations by visiting them in person.

Another problem was that the number of participants in the survey was completed the minimum required number after several times of distributing the link through the smartphone application Called "whatsap". The link was distributed by the researcher and her friends; they distributed the link randomly among all people they knew to reach the targeted sample. However, it took a long time for the minimum number of survey responses to be completed using this communication method.

Also, the researcher had a problem finding a coordinator for the programme of Digital Media for the Colleges of Applied Sciences because the coordinator of the programme quit her job a week before the data collection started. Consequently, the ministry recommended some academics at the College of Applied Sciences Nizwa who could help me gather the data I was looking for.

Summary

This chapter introduced the methodology and the research design adopted in this research. It started with providing brief definitions for methodology and research design. The chapter went through the data collection processes. It described the approaches adopted in this research for data collection and data analysis. These approaches were the triangulation approach as well as the mixed method approach that is included in the triangulation approach. The chapter described how these approaches were applied to the data of the research. Also, the chapter provided justification for using such approaches in all stages of the research.

The chapter described the data analysis techniques used in this research: deductive and inductive analysis. It explained how those techniques were applied in analysing the data of this research and the significance of using such analysis techniques.

The chapter also explained the use of statistics in validating the data gained from this research. It described the sources of the statistics and how the review of these statistics helped in validating the data of this research.

The chapter went through the limitations of the research and the difficulties that the researcher faced during the data gathering process of the research. Also, the chapter described how the researcher dealt with these limitations in order to complete the data collection.

Chapter four: Data Analysis

Introduction

This chapter aims to analyse the data collected in this research using conductive and deductive analysis techniques. Here, I am presenting the data collected and statistics that support the data in the research. I am giving the data I acquired a systematic order and describing them according to the purpose of collection. In this chapter, I am aiming to prepare the data in an organised way under specific themes to get them ready for the next step which is the interpretation.

4.1 Statistics Presentation and Data analysis

Below, the raw data collected during the research, and statistics that support the research are presented. The data came from the interviews and the survey conducted for the research. The statistics were provided by the Oman Ministries of Higher Education and Manpower.

4.1.3Statistics presentation

Table 1 **Ministry of Manpower's statistics of digital media graduates (job seekers/current workers) Class 2010-2011**

Data	Numbers	
	Male	Female
The number of Digital Media graduates from Colleges of Applied Sciences registered as job seekers	2	1
The number of Digital Media graduates from Colleges of Applied Sciences registered as workers	5	3

Statistics provided by the Omani Ministry of Manpower in 2012 show that the number of Digital Media graduates from the Colleges of Applied Sciences registered as job seekers are three graduates (two males and one female). These statistics also show that the number of Digital Media graduates from the Colleges of Applied Sciences registered as workers is eight (five males and three females). These statistics include all of the classes that graduated from the College of Applied Sciences from 2010 until the end of October 2012 – a total of three classes.

Table 2: **The data provided by the College of Applied Sciences-Nizwa that shows the number of graduates from the classes of 2010 and 2011.**

Graduation year	The number of graduates	
	Male	Female
2010	7	21
2011	19	23

Statistics provided by Nizwa College of Applied Sciences show that there were 28 digital media graduates in 2010 (seven males and 21 females), and in 2011, there were 42 (19 males and 23 females). In 2012, there were 33 graduates (14 males and 19 females). That is a total of 103 graduates overall.

4.2 Data analysis

4.2.1 Survey

As mentioned in the methodology chapter, I used deductive analysis to analyse the survey results. . After reviewing, cleaning and editing the data gathered from the survey, I present the final outcome of the survey.

The survey ran under the title of "The Situation of Unemployment Among Digital Media Graduates from the College of Applied Sciences Classes (2010, 2011)".

Below I present the results of the survey in chart form. Each chart presents the results of a question.
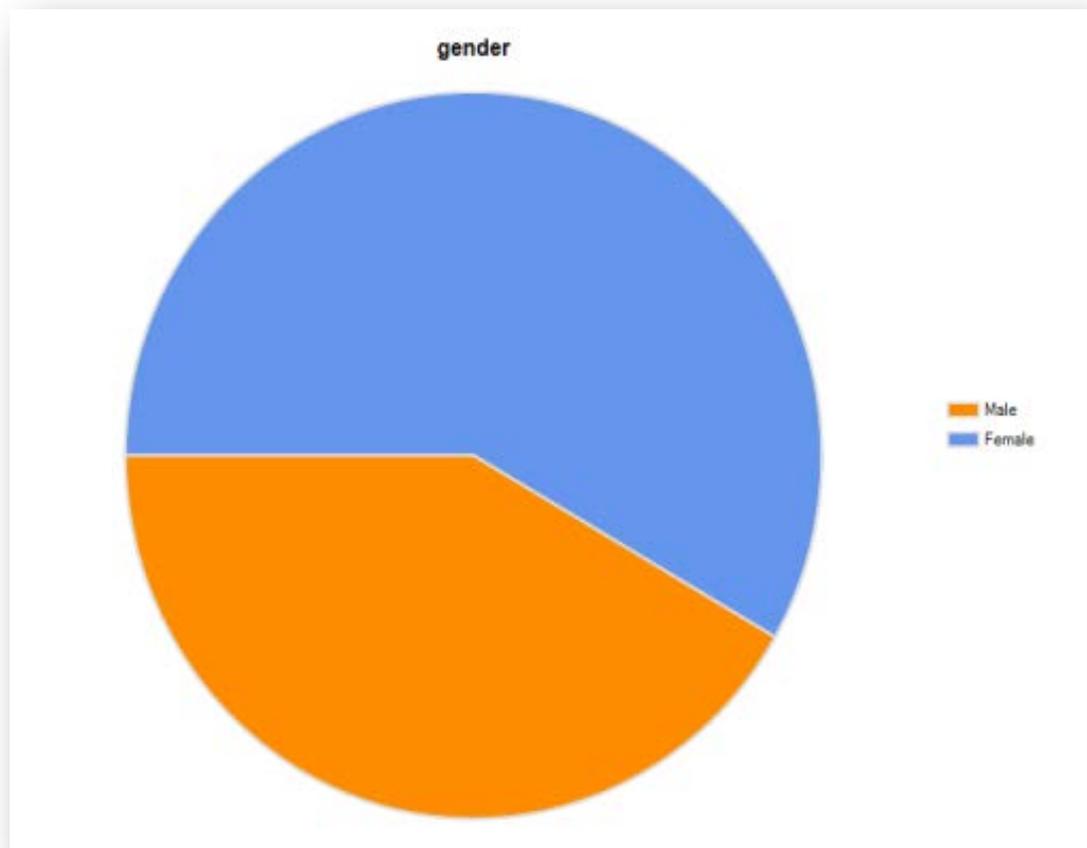
Figure 1. **The gender of participants.**
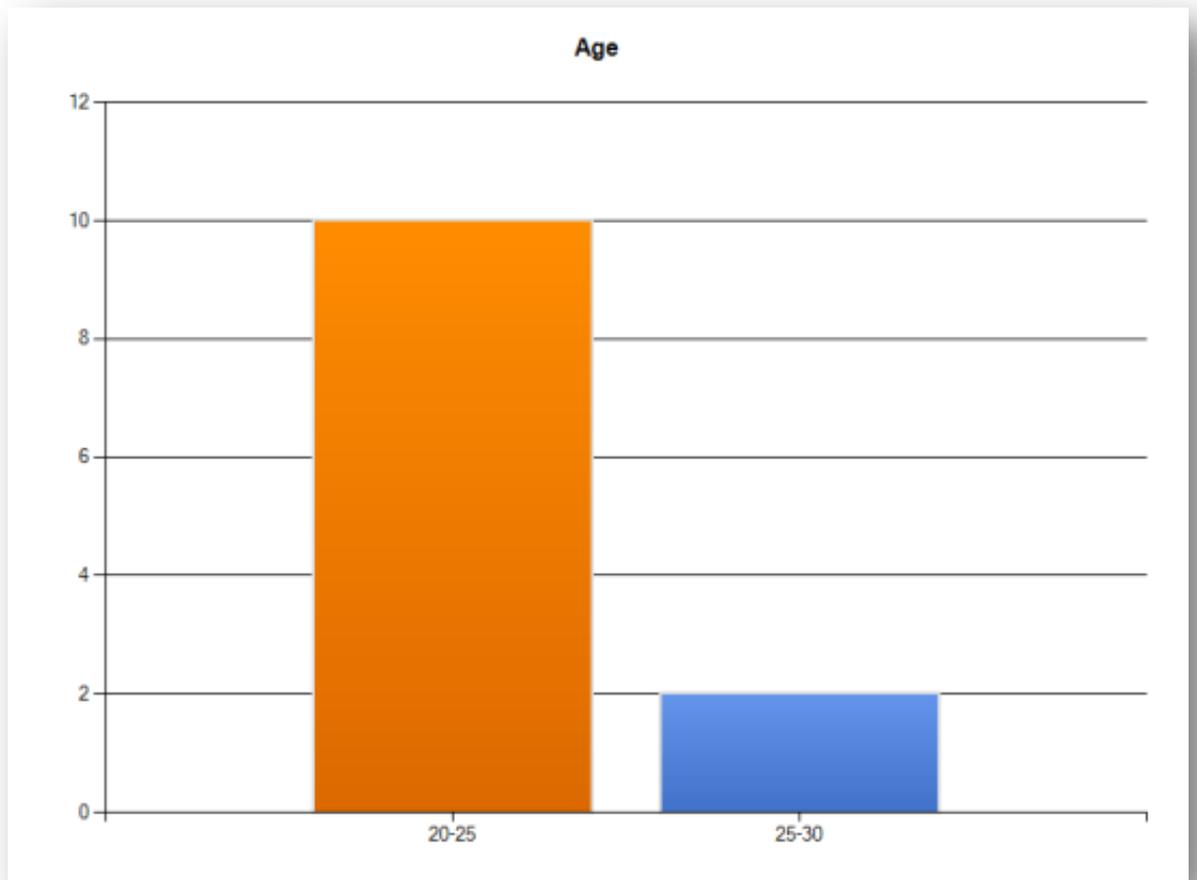
Figure 2. **The age of participants.**

The total sample of graduates who participated in the survey was 12; six from the graduate class of 2010 and six from the graduate class of 2011. The survey was randomly distributed among more than 25 graduates. Both genders were represented amongst the 12 graduates who participated. Most of the participants in the survey were females with a percentage of 58.3% . Most of the participants (83.3%) were aged between 20-25 years old.

Are/Were you employed in Digital Media industry in Oman?

■ Yes
■ No
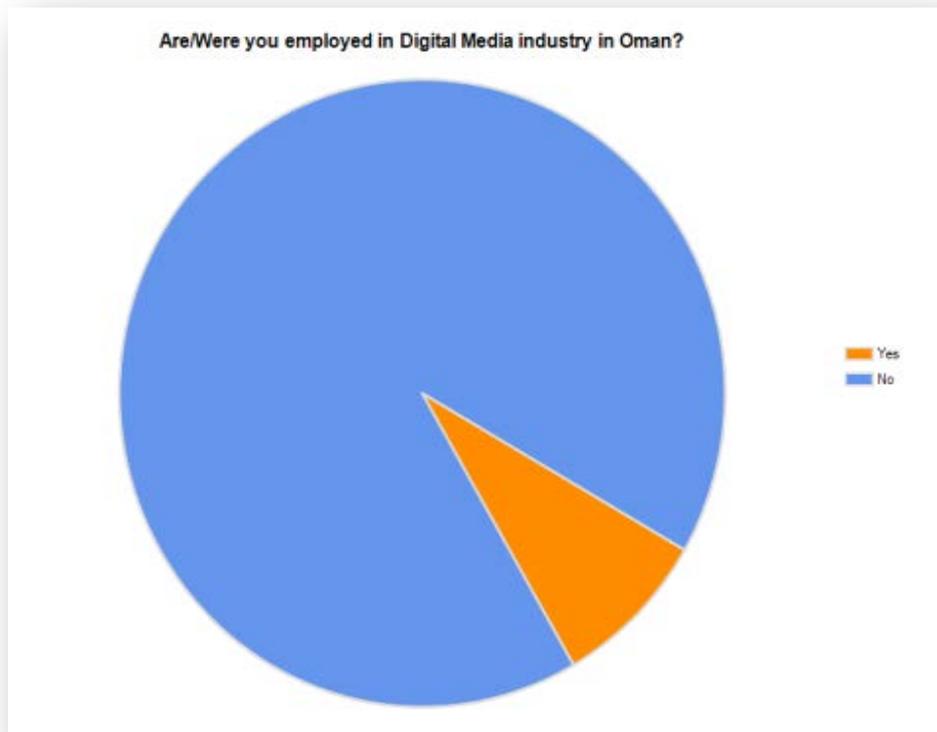
Figure 3. **Are/were you employed in the Digital Media industry in Oman?**

One of the 12 participants in the survey had a job in the local Digital Media industry in a television production company for six months.
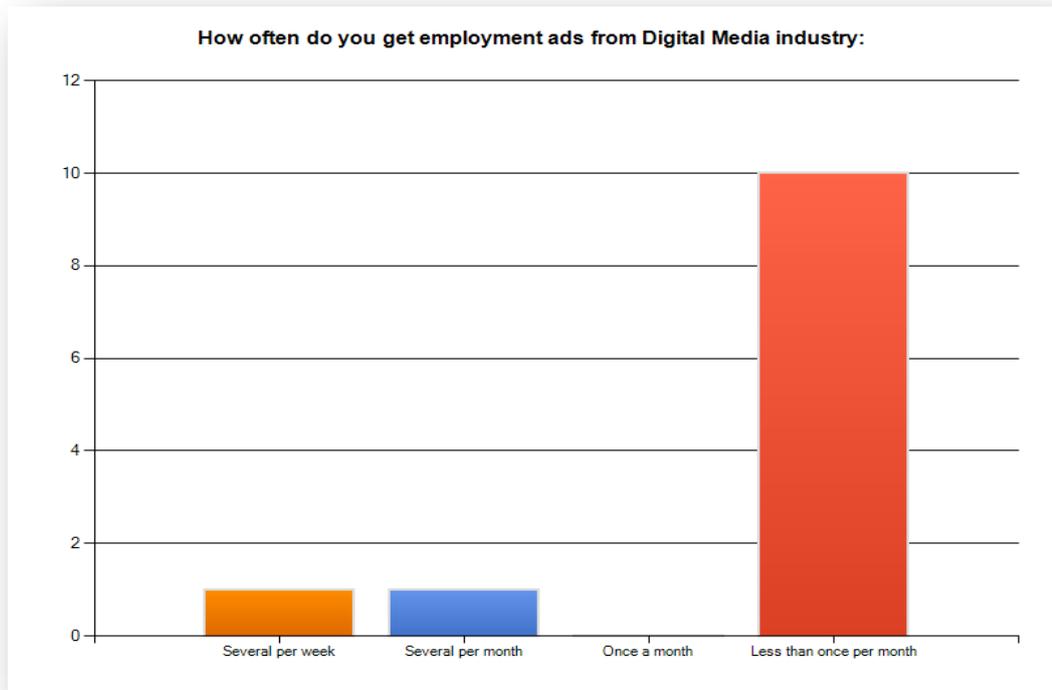
Figure 4. **How often do you get employment ads from the Digital Media industry?**

The purpose of the question "How often do you get employment ads from the Digital Media industry?" was to measure how often graduates get the opportunity to compete for new positions in the field of Digital Media. The majority (83.3%) confirmed that they get such ads less than once per month.
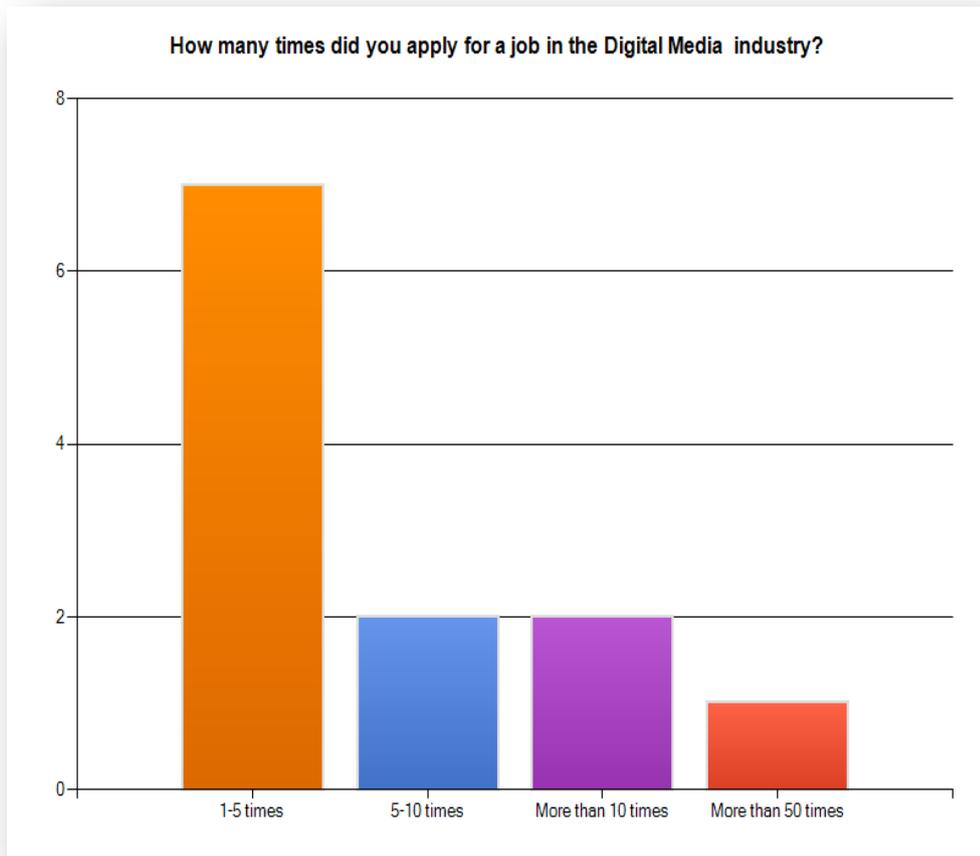
Figure 5. **How many times did you apply for a job in the Digital Media industry?**

58.3% had applied for jobs between one and five times. The rest of the participants applied for Digital Media jobs more than five times. 33.3% of the participants received calls for interviews after applying for these jobs.

Did you apply for internships in the industry of Digital Media :
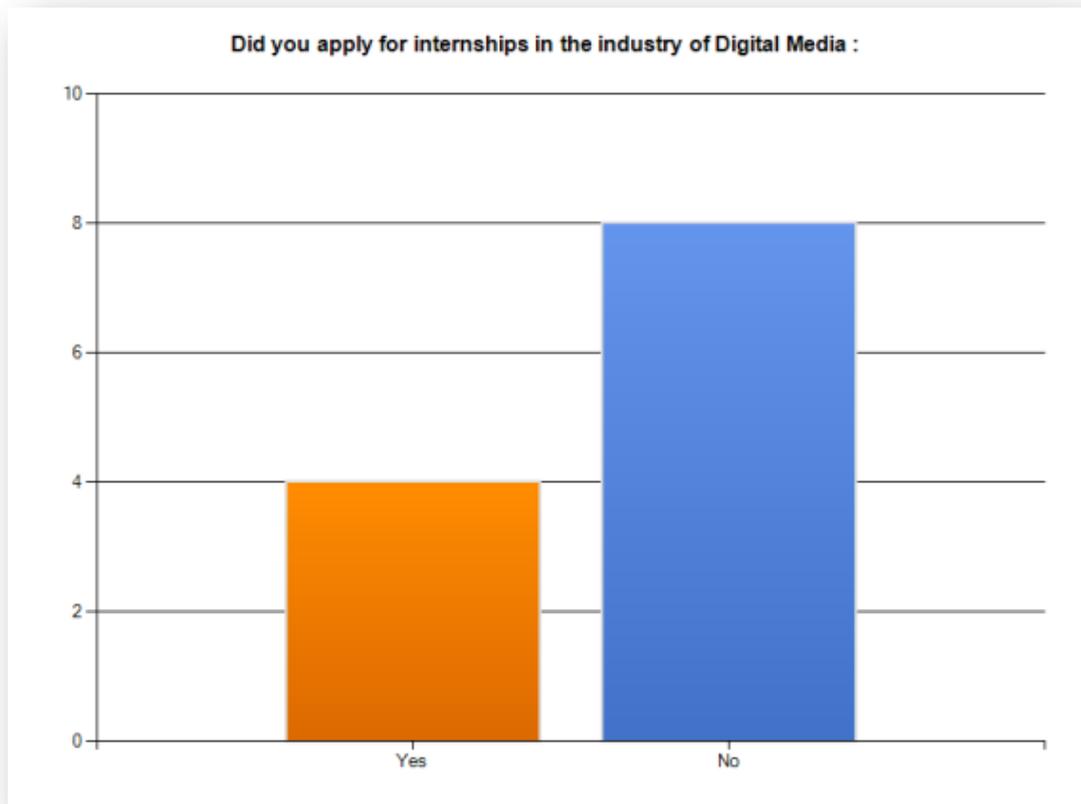
Figure 6. **Did you apply for internships in the industry of Digital Media?**

33.3% of the participants applied for internships and half of them had their application for internship accepted.
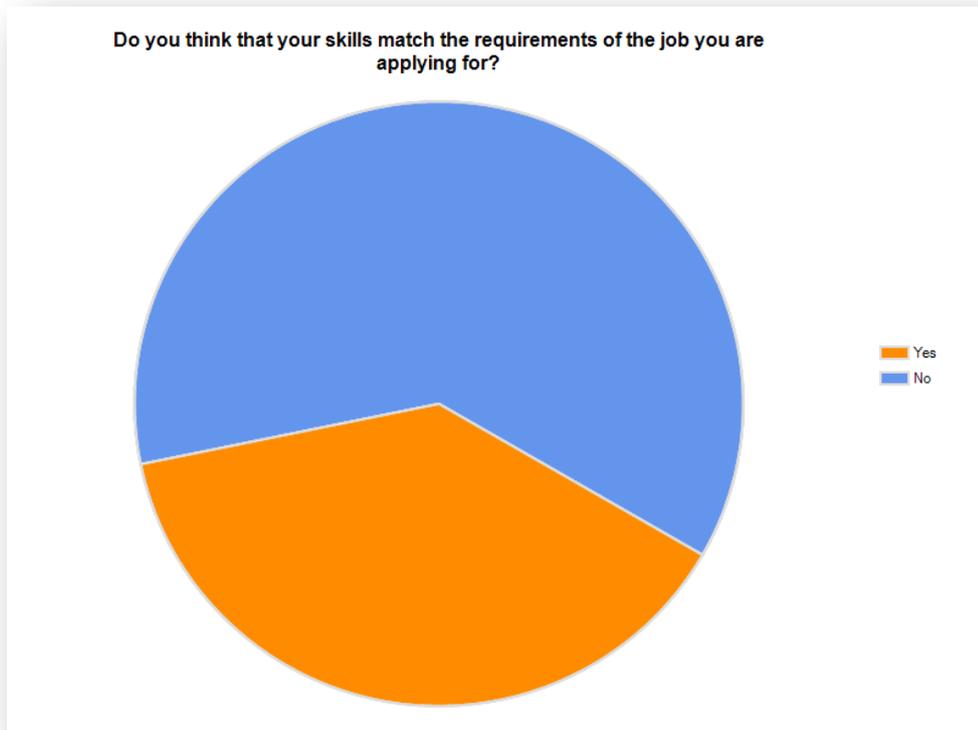
Figure 7. **Do you think that your skills match the requirements of the job you are applying for?**

66.7% of the participants in the research believed that they don't have the required skills to find a job in the industry. They justified that by saying that there is no match between what they studied and what the industry wants, and they don't have enough practical knowledge in the field of Digital Media.
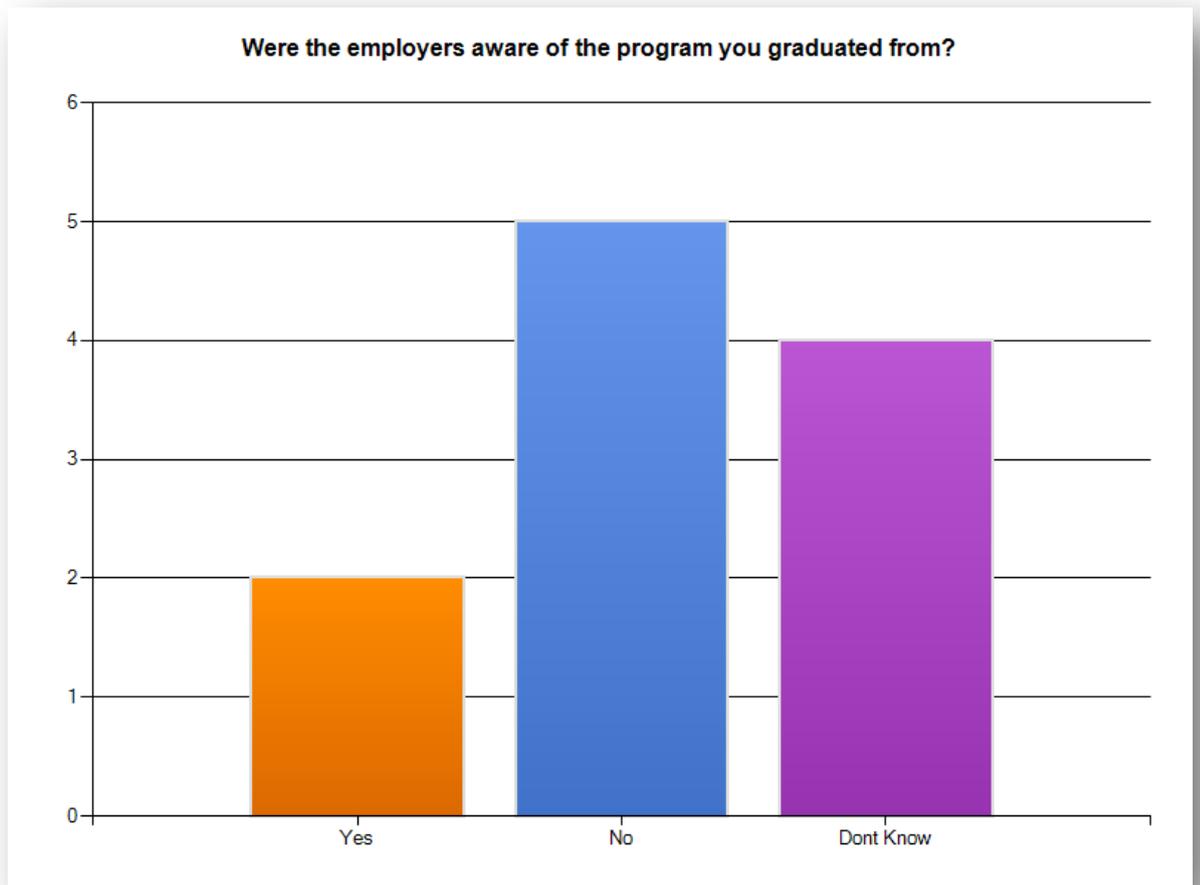
Figure 8. **Were the employers aware of the programme you graduated from?**

When the participants who had their applications accepted by the industry were asked "Were the employers aware of the programme you graduated from?", just 18.2% of them answered "Yes". The rest of them were divided between "No" and "Don't know".
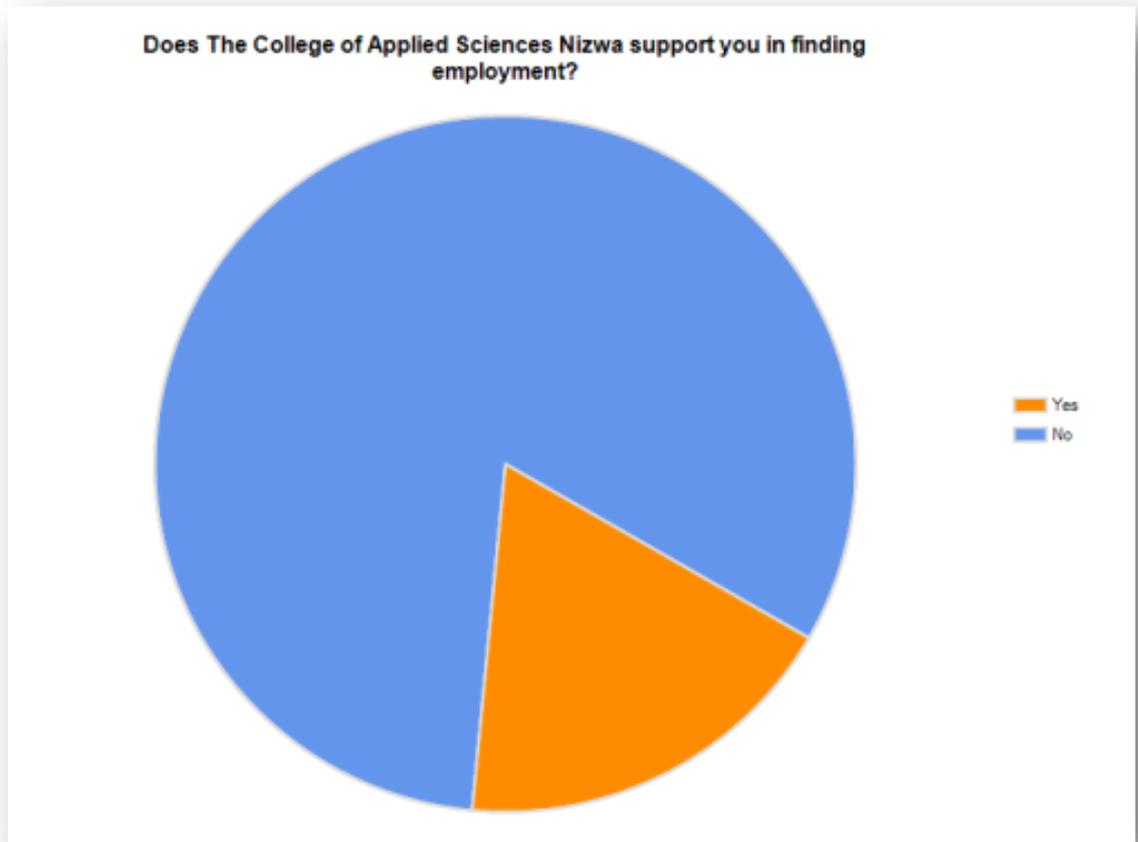
Figure 9. **Does the College of Applied Sciences Nizwa support you in finding employment?**

81.8% of the participants said that the College of Applied Sciences Nizwa does not support them enough in finding jobs. One of them explained that the only kind of support they get from the college is contacting the industry to find training courses for students.
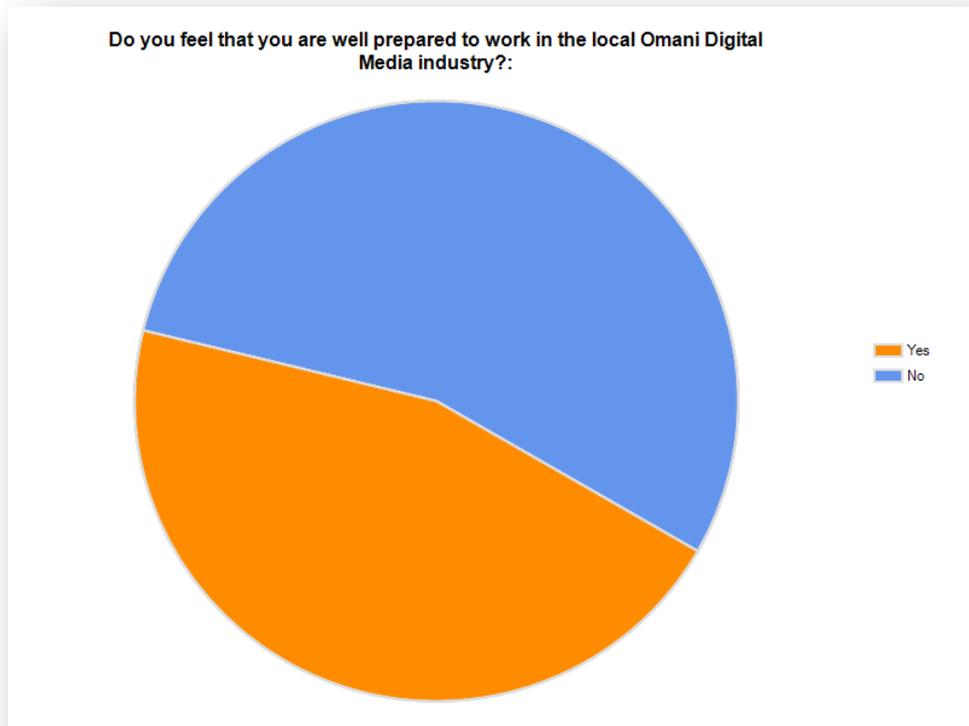
Figure 10. **Do you feel that you are well prepared to work in the local Omani Digital Media industry?**

54.5% of the participants in the survey believe that they are not well prepared to work in the local Omani industry of Digital Media. They justify their opinion by mentioning these factors:

- No match between their knowledge and the industry requirements.
- The continuous rejection from the industry.
- The lack of good teachers who can teach Digital Media well.
- While waiting for jobs,   graduates knowledge in Digital Media is no longer up to date because the technology changes so quickly.
- The industry does not know about the new specialization.
- All the knowledge graduates have is theoretical, nothing practical.
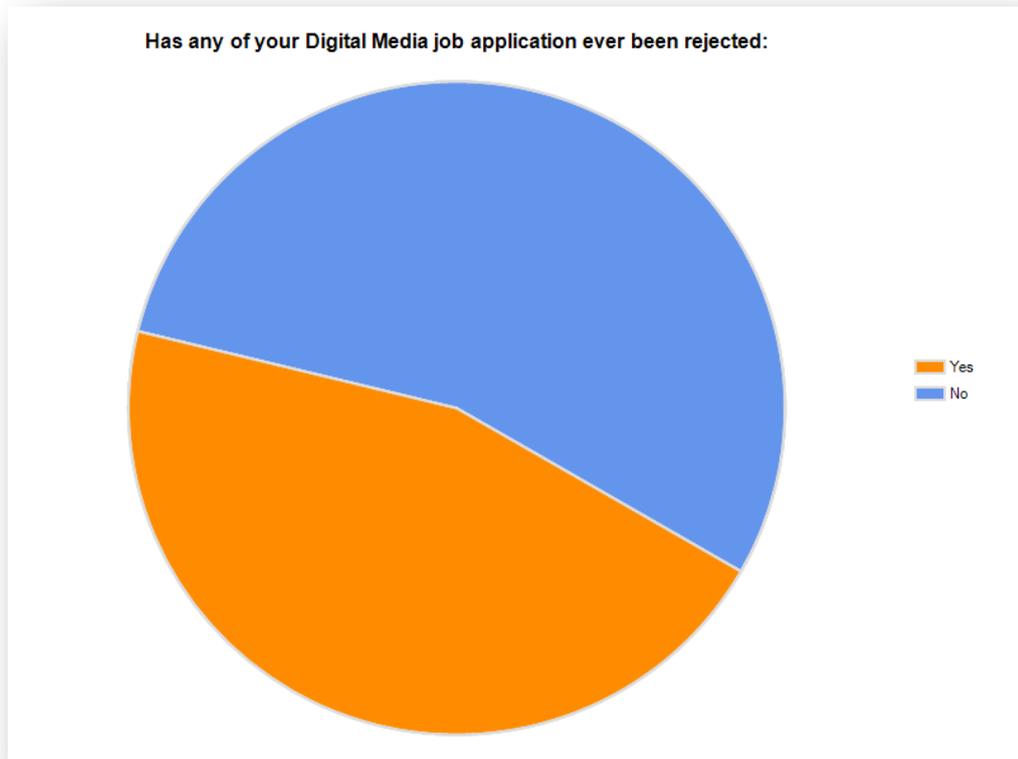
Figure 11. **Has any of your Digital Media job applications ever been rejected?**

Five of the participants said that their applications for jobs were rejected by the industry. They state the reasons as follows: No place for my major, my experience is less than what the job needed, and I don't know.

All the comments in the survey concentrated on the problem that there is limited industry for Digital Media in Oman and the major of Digital Media should get more support from the colleges and the industry.

4.2.2 Interviews

As I mentioned in the methodology chapter, I used inductive analysis for the interviews conducted in the research. Below are the main themes of all the interviews conducted in this research.

Main themes of the interviews

The interviews conducted with the professionals in the industry

- The local industry of Digital Media in Oman is very small and limited.
- Pointing to the student as the main person responsible for their future in the local market of Digital Media.
- They should be creative and fully skilled to get a chance to be employed in a small industry. Job candidates are expected to have skills in the following software:

  Video production software

  Photography

- Graphic design (Photoshop, 3DMAX, Flash, Maya…)Few training opportunities for CAS graduates.
- The industry needs creative experts in Digital Media, not just staff.
- Digital Media organisations in Oman are not at the same level as global competitors.
- The quality of Digital Media production is not satisfying the expectations of the world today.
- There are no real communication channels between the local industry and the institutions of higher education.
- The local industry of Digital Media is looking for creativity.

The interviews conducted with the digital media academics at the College of Applied Sciences Nizwa

- The improvements of the Digital Media program thought at College of Applied Sciences.

- The evaluation of the student's ability to work in the Omani local industry of Digital Media.
- The effort of the college to introduce the students to the local industry of Digital Media.
- The level of readiness to teach the Digital Media specialisation at the College of Applied Sciences Nizwa.
- The difficulties the College faces when they try to promote their Digital Media graduates.

The interviews conducted with the current students of Digital Media at College of Applied Sciences Nizwa

- Specialization years at the college are not enough to prepare students to work in the local industry.

- Digital Media students always have training courses in places that are not related to their chosen specialization.

- There is a huge lack of awareness of the Digital Media specialization in Omani society and the local industry.

- The education curriculum of Digital Media that is applied in the Colleges of Applied Sciences lacks the practical side.

Interviews outcome

The Omani local industry of Digital Media

- The professionals in the Digital Media industry say that the local industry of Digital Media is very small and limited.

  One of professionals working in the local Omani industry of Digital Media said, "...It's just started. I mean it start to grow up right now. We cannot say it's a big industry in Oman. It's just started". According to both professionals I had interviews with, the industry of Digital Media in Oman is very young, and the employment capacity is very small. According to the professionals, the number of graduates trying to enter the digital media industry far exceeds the number of positions being made available each year. The number of graduates seeking a

job in the industry is increasing, yet the capacity of the industry to create jobs for the large number of new graduates is not changing.

- Pointing to the student as the main person responsible for their future in the local market of Digital Media.

The professionals explained how the students and the graduates of Digital Media are partly responsible for their future careers. Self-development is the main element that can enhance the skills of Digital Media workers. The industry is very small, and the chances are very limited. That is why students and graduates of Digital Media should be prepared to compete for any job opportunities. Mainly they should be well prepared with updated knowledge of Digital Media to find a suitable place in such a small industry. According to the professionals, with such large numbers of Digital Media graduates and the small industry of Digital Media in Oman, the industry of Digital Media still has a problem with finding the suitable employers sometimes. Participant A states that the industry has a lot of graduates. But in terms of expertise and creative skills, it is not a big, big percentage of graduates who have what we need. They say that most of the people who are applying for Digital Media jobs are not qualified enough or they don't have what the industry looks for. The graduate can have more control over their career if they are aware of what skills and knowledge they are missing and take steps to deal with it.

- The creativity and the main software demanded by the industry:

The professionals agreed that there are some skills and software that are in huge demand by the local industry of Digital Media in Oman. They give examples of these skills and software, like Video production software, photography, and graphic design software (e.g., Photoshop, 3DMAX, Flash, Maya…).They said that there is a lack of people specialized in such skills and software in the entire country. Most of the workers in the local industry are not creative enough while the industry at this stage is looking for creativity and for ideas, not for more staff. So, if anyone is looking for jobs in the industry of Digital Media, they should take this into consideration. One of the professionals said,"...I think we need a practical and working talented, creative talented person really, and we need a motivated person and self-motivated person".

- The lack of communication between the Colleges of Applied Sciences and the local industry:

  "...With the Colleges of Applied Sciences ...we didn't have any communication unless we do have some students who come and visit, but we don't have any contact communication, but they are welcome to come any time". This statement was given by one of the Digital Media professionals working in the local industry of Digital Media in the Sultanate of Oman. The two professionals explained that there are few opportunities provided by their organizations to the Colleges of Applied Sciences. They believed that is due to the lack of communication paths created by the colleges to communicate with the organizations in their industry. This lack of communication between the colleges and the local industry makes the identity of these colleges not very clear to the industry. They are not clear on how the Colleges are working or what kind of specialization they are teaching and how the colleges can enhance the industry. Mainly, the industry needs to be identified to these colleges to provide the industry with the support they need and to promote the new graduates to the local industry.

Digital Media students

The interviews were conducted with Digital Media students from the College of Applied Sciences Nizwa. The main issues that these interviews focused on were:

- **Specialization years at the college are not enough to prepare students to work in the local industry.**

  All students I interviewed complained that the years of specialization were not enough for them. One of them stated,"...I think the years for our major, two years only, is not enough." In the Colleges of Applied Sciences, they teach the specialization in the last two years of a five year study period of Bachelor degree. The students said that the first years of study are not concentrating on their specialization; they prefer that the focus is on Digital Media only, rather than courses from different majors of Communication Studies.

- **Digital Media students always have training courses in places that don't reflect their specialization**.

Students said that they had training courses in skills that were not relevant to Digital Media. They believed that either the industry is not aware of their specializations, or their family did not allow them to train in Digital Media. They said that the training courses in such cases were not really helpful. One of the students described her training course, and she stated "...It wasn't ok for me; I didn't get something that satisfied me in this course."

- **There is a huge lack of awareness of Digital Media specialization in Omani society and the local industry**.

All students agreed that there is a huge lack of awareness about their specialization of Digital Media in the local industry and local society. They said that they couldn't find suitable places to train in the industry because their training applications got rejected. According to them, the industry is still not aware of exactly what the Digital Media programme is and therefore cannot provide places for students of Digital Media. On the other hand, students said that the local society does not understand what Digital Media is. One student described this point and said,"...Really, there is, there is no awareness about this major. We are in communication in general (other majors like public relations, international communication) people know about them, but about Digital Media there is no awareness from the society."

The students demanded that more be done to raise awareness of this specialization in the local society. Some of the families didn't know what their son or daughter was studying. One of the students said that her family will not allow her to work in Digital Media after she graduates because it is not the right place for a woman to work. Another student said that her parents only recently realised what she was studying.

4-**The educational curriculum of Digital Media that is applied in Colleges of Applied Sciences lacks the practical side**.

One of the students said, "...Even they give us a lot of programs and a lot of things from the area of Digital Media, but we want or we need more practice."

All students complained that the education curriculum of Digital Media taught in the Colleges of Applied Sciences lacked practicality. They said that the lack of the practical knowledge in the education curriculum prevented them from developing their practical

skills. They demanded that there be more concentration on the practical side of digital media to enhance their skills. They said it's important to have practical skills to find a job in the industry. They needed to learn and to see how the Digital Media industry is working in Oman through workshops or trips to the locations.

Digital media academics

It was really important to have the academic point of view for the research. That is why I had interviews with a coordinator and a staff member of the Digital Media programme at the College of Applied Sciences to investigate the issue from their side. The main points they emphasized were:

- **The Digital media program at the College of Applied Sciences Nizwa is a very good program.**

  The coordinator and the staff member said that the Digital Media program at the College of Applied Sciences Nizwa is very good. They said that this program is a very popular program and the students are very enthusiastic about it so far. They said that this program is catering to different aspects of the communication and media industry.   One of the academics stated, "...We are now undergoing to complete a revision for the program of Communication, but for the Digital Media specifically we kept it against the industry" .They said that the suitability of the program is checked with the industry. It competes with other universities' programmes and competes with the international standards. The academics believe it is a good program adopted by the Ministry, and it is suitable for the local industry.

- **Colleges of Applied Sciences are well and fully equipped to teach Digital Media**

  The coordinator and the staff member explained how the College of Applied Sciences Nizwa is fully equipped to teach Digital Media. They mentioned that the college has good teachers who meet international standards. Also, it's resourced with a TV studio that cost 200,000 OMR($817 (NZD)) and which

features highly advanced technology. The school also has a network learning environment (NLE) lab. The staff member said, "...The teachers are of international standard. To be honest there was a little shortcoming earlier in terms of resources, but still our students produced films in projects which got acclaim not only nationally but internationally as well, and now we have a TV studio, which is highly advanced technologically, and a NLE lab, so it has been going good so far, Alhamdullilah."

They mentioned that the students graduating from the College of Applied Sciences Nizwa are fully skilled and their readiness to work in the industry is very high. They said that the Digital Media graduates can work nationally or even overseas. They used the same example mentioned previously - that students are winning prizes nationally and internationally (like the prizes they won in a film festival in Dubai) - as evidence to support what they were saying.

- **No direct links to the industry**

The coordinator mentioned that there are no direct links between the college and the industry. She said,"..."This might be one of the back drawers of the program that we hadn't got direct links with industry, Which is a part of what the ministry is planning to do, actually, to introduce the College of Applied Sciences and programs and make an orientation for other industry, because people don't know that a good Digital Media program is existing here." In such cases, it is difficult for them to introduce their students to the industry. Also, she said that Digital Media graduates are not getting jobs, they don't even have access to the industry, and the industry does not know such job candidates exist in Oman.

- **Student consulting is very necessary**

The staff member emphasised the importance of consulting with students. They should be aware of what the Digital Media industry is. They should be able to introduce students to the industry of Digital Media. The students need to be told about the importance of struggling, the importance of competition, the importance of working hard, and the most important thing - how to be humble. They should know that this domain needs patience, and it's not just about money. They should appreciate a challenge as a learning experience, not for any

other reason. There is a lack of such awareness among students, which is why consulting is really important. The staff member said, ”...Counselling for students… most important they need to be told the importance of struggling, importance of competition, importance of working hard, and saying 'Alhamdullilah' and actually meaning it …What I meant was that nobody gets a salary of 1000 OMR when they start off…”

- **Contradicting in the idea of the industry awareness of Digital Media program**

There was a contradiction of opinions between the coordinator and the staff member in evaluating the level of industry awareness of the digital media program. While the coordinator thought that there is a problem in getting access to the industry to raise awareness of the program, the staff member thought that the industry has a good awareness of the program. He used an example of a campaign that was started by the public relations department and digital media students under the title "We Do Care". This campaign targeted the capital city of Oman, and it was a really good opportunity for the students to introduce themselves to the local digital media industry.

Summary

This chapter started with presenting the statistics gathered in order to support the data collected. The statistics were presented in tables and written description. After that, the chapter covered analysing the data gathered in the research. First, it presented the data collected through the survey method. This data was presented in charts and text description too. After that, the chapter went through the analysis of the interviews and the steps of thesis analysis. It presented the main themes of the each kind of interview and supported the description of the themes with the data gained from the interviews.

Chapter Five: Data interpretation

Introduction

This chapter aims to transform the data collected into credible and meaningful evidence in order to make a clear statement about the potential findings of the research. This chapter presents the full image of the research subject through giving the direct answer for the research question. It is concerned with explaining the main reasons behind the situation of unemployment among Digital Media graduates from the Colleges of Applied Sciences' classes of 2010 and 2011.

5.1 Themes of data interpretation

At this stage, I grouped similar responses into categories and identified common patterns and themes that can help derive meaning from what may seem unrelated and diffuse responses from the interviews and the survey.

The data collected was investigating the main reasons behind the problem of unemployment among Digital Media graduates from the Colleges of Applied Sciences classes of 2010 and 2011. From examining the data I received from organizations and participants, I could extract common points that have been raised as the main reasons for unemployment among Digital Media graduates. The themes that are a result of the data interpretation would be the suggested reasons by the researcher for the problem of unemployment among Digital Media graduates from the classes of 2010 and 2011. As can be seen, there were many common opinions among participants that made it easy for me to recognize the main reasons, which are as follows:

1. Limited industry

The first reason for the high level of unemployment among Digital Media graduates from the 2010, and 2011 classes is the limited capacity of the local Digital Media industry in the Sultanate of Oman. The Digital Media professionals working in the Omani local industry who participated in this research said that the sector of Digital Media in Oman has just started. It's very young, and so the employment capacity is very small. They said that the capacity of the Digital Media industry compared to the number

of job candidates in the country is very low. They add that the number of graduates seeking jobs in the industry of Digital Media is increasing, and the capacity of the industry to create jobs is not changing to reduce the big numbers of unemployed graduates.

The professionals also mentioned that if we compared the Digital Media industry in Oman to the global industry, we would notice how limited it is, either in the volume of production or the quality of production.

In order to measure the capacity of the local industry of Digital Media and its effect on the situation of unemployment among Digital Media graduates from the Colleges of Applied Sciences, I asked the Ministry of Manpower to provide statistics of Digital Media graduates from the Colleges of Applied Sciences who were registered as current workers or job seekers up until the end of October 2012.

The Ministry of Manpower does not classify statistics by the graduation year or college of graduation for Digital Media graduates from the Colleges of Applied Sciences, so they provided general statistics for the three classes which graduated from all of the Colleges of Applied Sciences through to the end of October 2012.

At first glance, it looked like there was a significant amount of data that would make it difficult for the researcher to recognise and interpret patterns. However, the numbers presented in the statistics provided by the Ministry of Manpower were surprising. Compared to the numbers of Digital Media graduates from just one College of Applied Sciences, the number of graduates who are working in the industry is very low. According to the statistics, only eight graduates from the three classes who have graduated so far from the Colleges of Applied Sciences are working in the local digital media industry. It is worth remembering that there are three Colleges of Applied Sciences providing the program of Digital Media in Oman. Nizwa College is just one of those three colleges. According to the statistics provided by the College of Applied Sciences Nizwa, the number of Digital Media graduates from their three graduate classes so far (2010 to 2012) is 103, and graduates from the classes of 2010 and 2011 total 70. This data indicates the limited capacity of the Digital Media industry in Oman to provide jobs for the number of digital media graduates who wish to enter the industry.

Also, the limited chances for graduates to find a job in the local Omani industry of Digital Media were represented by the graduates who participated in the survey. Only

one of the 12 participants in the survey had a job in the local industry, in a television production company for six months. In fact, the majority of the participants in the survey (83.3%) confirmed that they received advertisements for job opportunities in the local industry of Digital Media less than once per month.

Another point is that 58.3% of the participants had applied for jobs between one and five times. The rest of the participants applied more than five times. Only 33.3% of the total received calls for interviews after applying for these jobs.

Another thing is that the current students who participated in the interviews mentioned that they faced difficulties in finding places for training and internships in the field of Digital Media in Oman because of the limited places that provide such training courses in the country. What the students said about the training and internship was supported by the result of the survey, which showed that half of the participants had applied for internships, but only 33.3% of those participants had their applications for internship accepted.

2. Differences between qualifications taught , and qualification demanded.

From the data gathered, the second reason for unemployment among Digital Media graduates from the Colleges of Applied Sciences classes of 2010 and 2011 was that there were differences between the education curriculum and the qualifications demanded by the local industry of Digital Media.

According to professionals working in the local industry, it is really difficult for them to find suitable employees for Digital Media positions in their organization. They said that the main reason behind that is the mismatch between the skills they demand and the qualifications applicants have. They mentioned that the skills they demand are based on the ability of the employee to use the technology and to produce Digital Media while most of the applicants had no portfolios to show the employers their work and they were not ready to work in the field. Their knowledge was based on theoretical knowledge, and they didn't have enough practical skills to work in the field. The professionals in the local industry said that the industry does not need more staff; the industry needs creative people who can create new things using the new technology. The industry demands practitioners. People who have practical abilities are the people in demand by the industry.

They justified that by saying that there is no match between what they studied and what the industry wants and they don't have enough practical knowledge in the field of Digital Media as most of their study in college was theoretical.

According to the students, the practical side was not enough to prepare them for work. In fact, 54.5% of the participants in the survey believed that they were not well prepared to work in the local Omani industry of Digital Media, and the lack of practical knowledge was one reason for that. In his article, Das (2010) supported this opinion when he stated that young Omanis find it difficult to get a job as they do not have professional or vocational training.

Mamber (2000) suggested a method to teach Digital Media courses and to keep the practical part as the core of the educational processes. He suggested that Digital Media courses should conceptualize the nature of technology, which means that these courses should be designed in a way that considers the technology as the controller in the education processes. In his article, Mamber agrees with the professionals working in the local industry of Digital Media in Oman when he says that the world does not need people who can use Digital Media software, rather than people who can create and manipulate new arts with the assistance of this software. Digital Media is a field that constantly evolving.

Digital Media students say that the specialization years are not enough to equip them with the appropriate skills that would make them qualified enough to work in the local industry. According to students who participated in the research, from the original five years of study in the Colleges of Applied Sciences, the students specialize only for the last two years, which do not provide enough basics in the field. Students suggested that applying the educational curriculum of Digital Media at the colleges of applied sciences is not paying enough attention to the practical part of digital media education.

After investigating the problem of the mismatched qualifications, I presented the academics with the students' opinions about this problem. The academics in the Colleges of Applied Sciences said that the program of Digital Media was designed in order to service the local industry. They said that their students have great potential and their national and international achievements can support that belief. The academics explained that the college is a very well equipped institution that is capable of teaching Digital Media. They mentioned that the college has good teachers with international standing in the digital media field. Also, the colleges are equipped with a TV studio that cost 200,000 OMR/$623,817 NZD, and which is highly advanced technologically, and a

network learning environment (NLE) lab. The academics I interviewed said that the Digital Media program in the College is a very good one, and they do not face any challenges with it at all.

The academics working at the Colleges of Applied Sciences presented a totally contrary perspective about the problem of unemployment compared to the other groups interviewed, which leads the researcher to conclude that there is no awareness of the current situation of Digital Media employment among people who are working at these colleges. In fact, the academics working in the Colleges of Applied Sciences never mentioned that there was a problem of mismatched qualifications which led to unemployment among their Digital Media graduates. They believed that they are using the right Pedagogy to teach Digital Media, and there are no problems in this area.

From the data gathered, it is obvious that there is no clear understanding of the demands of the local industry of Digital Media among the Digital Media academics working at the Colleges of Applied Sciences. This is a significant problem as the key relationship between higher education and the labour market can be interpreted by looking at the extent to which higher education provides graduates with knowledge and skills to match employment needs (Allen & DeWeert, 2007). In this case, this relationship between the Colleges of Applied Sciences and the local industry of Digital Media in Oman is still unclear. This kind of negative Relationship will affect the quality of knowledge taught to the digital media students. This seems to support the belief held by half of the Arab chief executive officers that the Omani education system produces an unqualified national work force (Arab Human Capital Challenge, 2009).

3. The lack of Communication between Colleges of Applied Sciences and the local industry.

The data analysis in this research suggested another reason for the unemployment problem among Digital Media graduates, which is the lack of communication between the Colleges of Applied Sciences and the Omani local industry of Digital Media. That was obvious in the previous reason suggested when the academics denied any kind of problems they have in the educational system of Digital Media, or any kind of problems with the qualifications they teach to their Digital Media students.

The professionals said that there is a lack of communication between the Colleges of Applied Sciences and the local industry. That is obvious in the statement that was given by one of the academics when she said,"...This might be one of the 'back drawers' of the program that we hadn't got direct links with industry, Which is a part of what the ministry is planning to do, actually, to introduce the College of Applied Sciences and programs and make an orientation for other industry because people don't know that a good Digital Media program is existing here." The professionals implied that they were not really familiar with the education systems in the Colleges of Applied Sciences. They were not really sure about what these Colleges taught their students in the field of Digital Media. They admitted that there were great experts among students in the field of Digital Media in the country who were developing their abilities by themselves, and they were passionate about the field of Digital Media. What must be done then is to find these students to improve the industry. Doing that is not an easy thing without good communication paths between the institutions of higher education and the local industry. Academics suggests that there must be some fairs, symposiums or any kind of gathering that may introduce students to the local industry and vice versa.

The students also considered the lack of communication paths between their college and the local industry as one of the main obstacles for them when they started looking for training opportunities in the local industry. That was why most of the time they had training courses in different fields away from their chosen specialization.

The graduates who participated in the survey also said that because of the lack of communication between the Colleges of Applied Sciences and the local industry, they didn't have what the industry needs and the industry couldn't identify the educational programs the students had gone through. Their job applications were rejected because of that. However, the graduates admitted that the colleges made it easy for them to search for places to work or train through writing official letters to organizations. What the students and graduates demanded from these colleges was not just writing official letters, but also introducing them to the local industry throughout events that would promote what they can do.

There seemed to be contradicting perceptions among the academics about the communication between the industry and the Colleges of Applied Sciences. One of the academics mentioned that there were no direct links between the College and the industry, which was a problem.. In the interview, this academic mentioned that this problem made it difficult for them to introduce their students to the local industry. Also,

she said that the Digital Media graduates were not getting jobs, they didn't even have access to the industry, and the industry did not know about such job candidates existing in Oman. She also mentioned that the Ministry of Higher Education was working right now on this issue, and they were planning to start fairs and gatherings to introduce their students to the local industry. She said that the colleges were doing a great job to prepare their students but what they need at this stage was to introduce their graduates to the local industry.

However, another academic said that the industry awareness level of the program and the communication with them is really good. He used an example of a campaign that was started by Public Relations and digital media students under the title "We Do Care". This campaign targeted the capital city of Oman, and it was a great opportunity for them to introduce themselves to the local industry.

4. The lack of society's awareness of the field of Digital Media

A very interesting point that was raised spontaneously throughout the interviews with the current students was discussing the issue of the local society's awareness of the field of Digital Media. According to the students, there is a very big question mark about the Digital Media field in the local Omani society. The Omani people are not really aware of what exactly Digital Media is. Two students from the original foure who participated in the interview mentioned that they faced problems with their families when they decided to study Digital Media. Both of them said that they faced difficulties in explaining to their families what the major they were studying was all about. One of these students said, "…When I talked to my family about choosing Digital Media to study, my brothers and sisters always, they keep asking me, 'what is this major?'"

According to them, their families were not really open-minded to the new major of Digital Media. In fact, one of them mentioned that her family even prevented her from having a training course in any place that was related to her specialization. She said that her family thinks that working in any aspect of media is not appropriate for a woman. That is why she said that she will not be able to work in Digital Media after graduation.

This lack of awareness among the local society could be one of the main reasons for unemployment among Digital Media graduates from the Colleges of Applied Sciences. The families want their children to have a career that is known to them to guarantee their future. They still have not got enough knowledge of the sector of Digital

Media and its important role in current society. The attitude of the local society is almost justified if we know that there are international studies discussing the effects of the choice of study field on finding jobs. Walters (2004) indicated that research conducted in Canada and the United States about the impact of the fields of study has shown that graduates of the more ''generalist'' liberal arts programmes, such as the fine arts, humanities, and social sciences, generally have poorer labour market outcomes than do graduates of applied and skills-oriented programmes. Those in the latter fields are thought to obtain jobs with higher wages because they later utilize the skills they learned in school, whereas liberal arts graduates are believed to work for lower wages in jobs that do not require post-secondary training.

5. The lack of student consultation

The lack of student consultation about their future career caused confusion for the students about where they were going to work and what exactly they wanted to do. An academic person I interviewed suggested that the Colleges of Applied Sciences must introduce career counselling for Digital Media students. He said that students of Digital Media need to be aware of the field that they are studying. He also said that the students should have a very thorough consultation about the industry of Digital Media in general. He said that students should be aware that the academic life is completely different than the career life. As soon as they graduate and start working in the industry, students start a new phase of learning. According to the academic, it's really important for students to be patient when they start working in the industry, especially in the field of Digital Media. They should concentrate on develop their skills at the beginning of their career, rather than thinking about how to make money faster. They should be patient and humble.

The problem of the lack of consultation appeared again with another participant`s feedback in the research. One of Digital Media students, who I interviewed, complained that she was given her academic supervisor very late in the process. She considered this to be a problem because she got her academic adviser after deciding what specialization she wanted to study, not before that. She said that she made up her mind to study Digital Media after consulting older students in Digital Media at the college.

The lack of students' awareness about how the Digital Media field really works in the country would lead them to form wrong expectations about the industry and the

nature of the work. That will create another kind of mismatch between the industry expectation and the potential employee, and the expectation of the Digital Media graduates who are applying for jobs in the local industry.

Summary

This chapter discussed the real importance of the processes of data interpretation in the research through providing the answers to the research question. In this chapter, the researcher identified the main themes of data interpretation. Because the research sought to find the reasons behind the high level of unemployment among digital media graduates from the Colleges of Applied Sciences' classes of 2010 and 2011, the main themes of data interpretations were the researcher's suggested reasons for the unemployment situation. The reasons suggested by the researcher for the high level of unemployment among Digital Media graduates from Colleges of Applied Sciences' classes of 2010, and 2011 are: the limited industry of Digital Media in the Sultanate of Oman, differences between qualifications taught and qualifications demanded, the lack of communication between the Colleges of Applied Sciences and the local industry, the lack of society awareness of the field of Digital Media, and the lack of student consultation/career counselling.

Chapter Six: Conclusion

Introduction

This chapter summarizes the findings and their implications in the research and to propose answers to the research question. It aims to present the final results of research and to outline the opinion of the researcher about how to deal with the situation of unemployment among Digital Media graduates. Also, the chapter aims to present the researcher's suggestions for further research.

6.1 Background

This research aimed to find the reasons behind the high level of unemployment among Digital Media graduates from the Colleges of Applied Sciences' classes of 2010 and 2011 in the Sultanate of Oman. This research was initiated after recommendations from those graduates who graduated from these colleges. The topic of this research was investigated by the researcher from the perspective of four dimensions: the industry of Digital Media in the Sultanate of Oman, the graduates of Digital Media classes of 2010 and 2011, the current students studying Digital Media, and the academics working in the Colleges of Applied Sciences. The aim behind choosing these four dimensions was to seek out the reasons for unemployment among Digital Media graduates from the academic perspective, the market perspective, the perspective of graduates who are going through the problem of unemployment, and the perspective of the current students who may face such a problem.

The researcher specified the samples of participants and issued the letter of recruitment to the responsible organizations and individuals to allow the researcher to start the data collection.

6.2 Findings and implications

After analysing the data of research and relating the data gathered to the statistics requested by the researcher from the Ministry of Manpower and the College of Applied Sciences Nizwa, it is now easy to answer the question of why there are high levels of unemployment among Digital Media graduates from the Colleges of Applied Sciences' classes of 2010 and 2011 in the Sultanate of Oman.

The data collected for the research proved that Oman has a very limited digital media industry. This industry is not capable of absorbing the number of graduates who are graduating from Digital Media specializations, or even to provide enough places for training or internships for the current students of Digital Media. That is clear in the statistics provided by the Omani Ministry of Manpower, which shows that out 103 digital media graduates from the Colleges of Applied Sciences; only eight are working in the local Omani digital media industry. The reality that Oman has a limited digital media industry is emphasised in this research as a serious problem, especially when researchers expect that Oman will soon produce three times as many college graduates each year as there are jobs available in the country (Al-Barwani, Chapman & Ameen, 2009), and that will certainly include Digital Media graduates. The limited capacity of the industry will not just result in increasing the rate of unemployment among digital media graduates, but it will also result in creating Digital Media graduates with not enough experience to work in the field. That is because there are not enough places to train students and graduates in the industry. The limited industry was the first reason identified for the problem of unemployment among Digital Media graduates from the Colleges of Applied Sciences.

The research has shown that there are differences between Digital Media qualifications taught at the Colleges of Applied Sciences and the qualification demanded by the local Omani industry of Digital Media. According to the people working in the industry, what the local industry of Digital Media needs now is people who can deal with Digital Media technology, but they can't find that in people who are applying for jobs. They don't need more staff; they need Digital Media practitioners. From the data collected, it is obvious that the graduates of Digital Media from the Colleges of Applied Sciences lack knowledge about the practical side of Digital Media; however, the practical side of Digital Media is the main demand of the Omani Digital Media industry today. In fact, 66.7% of the Digital Media graduates who participated in the survey believed that they don't have the required skills to find a job in the industry. The mismatch of qualifications taught to students at the Colleges of Applied Sciences and qualifications demanded by the local Omani industry of Digital Media will result in two problems. The first problem is that the industry demands will not be satisfied even with the huge number of graduates looking for jobs every year, and the second problem is that the unemployment rate among Digital Media graduates will increase dramatically. The mismatch of qualifications taught to students at Colleges of Applied

Sciences and qualifications demanded by the local Omani industry of Digital Media was the second reason identified for the problem of high unemployment among Digital Media graduates from the Colleges of Applied Sciences.

The third point that has been identified as a reason for the problem of unemployment among Digital Media graduates from the Colleges of Applied Sciences is the lack of communication between the Colleges of Applied Sciences and the local industry. The data shows that there is not enough knowledge about the specialization of Digital Media at the Colleges of Applied Sciences in the Omani industry of Digital Media. –Vice versa, there is not enough awareness of the demands of the local industry of Digital Media in the Colleges of Applied Sciences. That leads to a mismatch between the qualifications demanded by the industry and the design of the Digital Media curriculum that is taught to students. While the academics in the Colleges of Applied Sciences implied that they have a very good system of teaching digital media that creates great graduates, the industry, with its limited capacity, still cannot find good quality job candidates from amongst the graduates of the Colleges of Applied Sciences. The lack of communication will not only result in a situation of high unemployment amongst digital media graduates, but will cause confusion among students of Digital Media in regards to their expectations about the industry and where they are going to work.

The data analysis also identified another reason for the situation of high unemployment among Digital Media graduates. This reason is society's lack of awareness of the field of Digital Media. People in Omani society are still not completely aware of the concept of Digital Media. They are not aware of the nature of Digital Media work. The families of Digital Media students still prefer that their children work in other fields than Digital media. They insist that their children take training courses and experiences in other fields rather than Digital Media. That is not helping students to find jobs that match their degrees and what they know. This lack of awareness creates Digital Media graduates who are not really prepared psychologically to work in the industry or even to work anywhere else.

The final point identified in this research is that there is a lack of student consultation for Digital Media students at the Colleges of Applied Sciences. In fact, not just society is unaware of the field of Digital Media; even the students themselves are not aware of their chosen specialization sometimes. They chose to study the specialization with different expectations. They didn't know exactly what they are going

through, or even what the nature of their work involved. The lack of student consultation could lead to expectations different from reality. When the graduates find that the work field is not similar to what they expected, that could lead to reluctance to work in the field of digital media. That is another reason for unemployment among Digital Media graduates. The problem of the lack of consultation is referred to as another reason for unemployment, and these ties in with the lack of communication between the local industry of Digital Media and Colleges of Applied Sciences. If the academics and the consultants don't have enough knowledge of the local industry of Digital Media, it will be a difficult mission for them to portray the reality of the industry for their students.

6.3 Recommendations

From the findings of this research, I present some recommendations that could solve the problem of unemployment among Digital Media graduates from the Colleges of Applied Sciences. The first recommendation is to activate the communication channels between the industry of Digital Media in The Sultanate of Oman and Colleges of Applied Sciences. This is in order to match the demands of the industry to the qualifications taught to students at colleges. The second recommendation is to establish student career counselling as one of the academics suggested, in order to introduce students to the field of Digital Media before they choose their specialisation. However, as I mentioned above, there should be good channels of communication between the colleges and the industry to provide the academic consultants with enough knowledge to help students.

6.4 Future research

During the processes of the research, some suggestions for future research were generated. One idea is the education curriculum of Digital Media and how to develop it according to the demands of the local industry. The point should be investigated in more detail to find paths between the education curriculum of Digital Media and the local industry of Digital Media.

Another idea is to look at the reasons that prevent the digital media industry in Oman from growing and competing internationally. Why is the industry very small and

production even smaller? Why is there such little attention from the government to develop such a sector?

Also, an important point has been raised in this research. This point is the local society's awareness of Digital Media, what are the reasons behind this lack of awareness, and why there is no enough shade on this important field in the Sultanate of Oman?

These topics could be supported by the findings of this research in case they become subjects for further academic research. The field of digital media in the Sultanate of Oman is still young and needs more research and development to help it grow and adapt to the global changes occurring around us.

Summary

The chapter was about describing the full findings of research and its implications. It started with a brief background about the procedure of research and the tools used. Then it described the findings and the implications. After that, this chapter presented the researcher's recommendations for solving the problem of unemployment among Digital Media graduates from the Colleges of Applied Sciences. Finally, the chapter provided suggestions for relevant topics for future research. These topics can be supported by the findings of this research.

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Appendix A: Information sheet

Participant Information Sheet

Date Information Sheet Produced:

1st August 2012

Project Title

Unemployment among Digital Media graduates in Oman

A case study of the College of Applied Sciences Nizwa,

Oman.

An Invitation

This is Hajar Hamdan Khalfan Al saidi, a Master student at the School of Communication Studies at Auckland University of Technology, New Zealand.

This year, I undertake a postgraduate research into the higher education systems in the Sultanate of Oman. My research investigates the difficulties faced by Digital Media graduates from College of Applied Sciences-Nizwa when they apply for jobs in the local industry. The research deals with the Digital Media program taught at the College of Applied Sciences-Nizwa as well as the local Digital Media industry. .

I would like to request you to support my research in terms of providing data that would aid to the completion of the project.

.

This research will allow me to obtain the Master degree in Communication Studies from Auckland University of Technology.

Your participation in this research is entirely voluntary and you may withdraw at any time during the research.

What is the purpose of this research?

This research aims to investigate the key reasons behind the apparent inability of the Digital Media graduates from the Colleges of Applied Sciences (CAS) in finding employment in the local Omani industry. The findings will provide a clearer picture of the employment situation in the Digital Media sector and what it takes to enter into the industry. This study investigates the current skill requirement in the local Digital Media industry of in Oman. The study compares the industry skill requirement with the Digital Media educational curriculum at the College of Applied Sciences in Nizwa. The purpose of the comparison is to identify possible gaps in the scope or quality of curriculum and/or in communication between educational institutions and industry. The findings of this study can play an important role in the improvement of the employment rates of CAS (Digital Media) graduates.

How was I identified and why am I being invited to participate in this research?

Alumni

In this research I am choosing alumni who are still looking for jobs in their specialisations to know about the difficulties they face while looking for jobs. I am identifying these alumni through my personal network..

Digital Media Professionals:

In order to get expert opinions, I am going to liase with senior professionals in the Digital Media industry in Oman. . I am going to identify them through official contact with the organisation they work in (Oman TV).

Digital Media Coordinators:

I am going to choose Digital Media coordinators at the College of Applied Sciences Nizwa to know more about the educational curriculum and how the College promotes graduates to the local industry. I am going to identify them through official contacts with the organisation they work in (The Ministry of Higher Education).

Digital Media students:

I am going to talk to the Digital Media students at the Colleges of Applied Sciences Nizwa about the current educational curriculum and how it develops their skills in Digital Media in relation to the local industry requirement.. I am going to identify this category with the help of the College of Applied Sciences Nizwa after getting their permission to do so.

What will happen in this research?

There will be a separate interview with each participant. Interview schedule will be arranged and agreed between the researcher and the participant. All the information gained from the participant will be recorded as audio and then transcribed. The transcripts will then be analysed by the researcher.

What are the discomforts and risks?

In talking about the limitations of the local industry, the professionals may experience discomfort and risks. There might a risk to comfort and self-worth when Digital Media graduates and students talk about unemployment or failure to secure professional work. Also, there is a risk to the comfort of coordinators when they talk about their educational plan and curriculum and the associated evaluation.

How will these discomforts and risks be alleviated?

Risks are not expected but in case that there should be some discomfort, participants can withdraw or decline a particular question at any point in time.

These kinds of discomforts will be alleviated through representing the benefit of this research and the great outcome that is purposed behind it.

What are the benefits?

This research will investigate two important areas of Digital Media in Oman: industry and Education. All participants in this research belong to these two areas in some way or another. This research will provide participants with a clearer view of the current situation and demands of the Digital Media industry and Education in Oman.

How will my privacy be protected?

All information provided by participants will be securely saved. Only the researcher and the supervisor will have access to this information. No names will be mentioned in the research. No participant would be identified in the final report or during the research process.

What are the costs of participating in this research?

There are no financial implications of participation in this research. The interviews may take from 30 minutes to an hour, while the questionnaire may take from 20 to 45 minutes.

What opportunity do I have to consider this invitation?

You have two weeks to consider this invitation.

How do I agree to participate in this research?

You need to sign a consent form that will be sent to you by e-mail.

Will I receive feedback on the results of this research?

Yes, you are going to receive a report about the final results of this research.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor: Gudrun Frommherz, gudrun@aut.ac.nz , (09) 921 9999 x 7394

Concerns regarding the conduct of the research should be notified to the Executive Secretary, AUTEC, Dr Rosemary Godbold, *rosemary.godbold@aut.ac.nz* , 921 9999 ext 6902.

Whom do I contact for further information about this research?

Researcher Contact Details:

Hajar Hamdan Khalfan Alsaidi, Hajir86@hotmail.com,

Oman: 0096895630815

New Zealand: 0064211755840

Project Supervisor Contact Details:

Gudrun Frommherz, gudrun@aut.ac.nz , (09) 921 9999 x 7394

Approved by the Auckland University of Technology Ethics Committee on *28 August 2012*, AUTEC Reference number 12/179

Appendix B: Consent form

Consent Form

Project title: ....

Project Supervisor: ....

Researcher: ....

○ I have read and understood the information provided about this research project in the Information Sheet dated dd mmmm yyyy.

○ I have had an opportunity to ask questions and to have them answered.

○ I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.

○ I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way.

○ If I withdraw, I understand that all relevant information including tapes and transcripts, or parts thereof, will be destroyed.

○ I agree to take part in this research.

○ I wish to receive a copy of the report from the research (please tick one): Yes○ No○

Participant's signature:

....…………………………………………………
………

Participant's name:

....…………………………………………………
………

Participant's Contact Details (if appropriate):

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Date:

Approved by the Auckland University of Technology Ethics Committee on 28 August 2012, AUTEC Reference number 12/179

Note: The Participant should retain a copy of this form.

Appendix C: The questions of the interview that will be conducted with Digital Media academics in College of Applied Sciences-Nizwa

The questions of the interview that will be conducted with Digital Media academics in College of Applied Sciences-Nizwa

1- Can you provide an overview over the digital media program at the College of Applied Sciences –Nizwa?

2- How do you, in general terms, evaluate the quality of the program?

3- Would you consider the Digital Media Curriculum to relate to present industry demands?

4- Do you think that Digital Media students are adapting well with the program?

5- Do you have any relations with the industry? If you do in what ways are these relations represented?

6- How do you see the industry awareness of the Digital Media program in College of Applied Sciences Nizwa?

7- What are key factors for developing the Digital Media curriculum in CAS?

8- How do you see job readiness for Digital Media graduates at the Nizwa College of Applied Sciences?

9- Do you have any numbers or details of employment rates among Digital Media graduates in College of Applied Sciences?

10- What do you think could be done to improve employment rates among Digital Media graduates in College of Applied Sciences?

Appendix D: The questions of the interview that will be conducted with Digital Media students in College of Applied Sciences-Nizwa

AUT UNIVERSITY
TE WĀNANGA ARONUI O TAMAKI MAKAU RAU

- Your academic year please?

- . Are you satisfied with the current educational curriculum? Why?

- Do you think that what you have learned in Nizwa College of Applied Sciences is enough?

- Have you ever applied for training courses in the industry in the field of Digital Media and where?

- How can you describe the local society awareness of your specialization (Digital Media)?
- What do you think you need more in Digital Media specialization here in College of Applied Sciences Nizwa?
- What kind of difficulties you face in your specialization ?

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Appindix E:The questions of the interview that will be conducted with Digital Media professionals in the Omani local industry of Digital Media

The questions of the interview that will be conducted with Digital Media professionals in the Omani local industry of Digital Media

1- How do you evaluate the Digital Media industry in the Sultanate of Oman with respect of its capacity to employ the local cadres?

2- As an expert in the area of Digital Media, how do you see the volume of Digital Media production in the Omani Local industry?

3- Can you describe how the local market of Digital Media is keeping up with the international market of Digital Media in respect of the international competition of production quality?

4- Do you think that the institutions of Higher Education are satisfying the demands of the industry in the field of Digital Media? Why or why not?

5- What do you know about the Digital Media program taught at the College of Applied Sciences-Nizwa?

6- What are the ready skills and qualifications you require from a local Digital Media employee in your organisation?

7- Is it easy to find a suitable local Digital Media employee? Why or why not?

8- Does your organisation provide internships for Digital Media graduates of Colleges of Applied Sciences? Why or why not?

9- What Digital Media skills are required by the industry at the moment and what skills may will be needed in the future?

10- Does your organisation have relationships with Colleges of Applied Sciences to seek for good Digital Media graduates?

11- Do you think it is a necessity that the industry of Digital Media cooperates with the educational institutions? Why or why not?

12- What do you think the College of Applied Sciences Nizwa would need to do to enhance Digital Media education?