Eastern Mediterranean University Undergraduate Students Perspective on Digital Competence and Academic Literacy

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ABSTRACT

Purpose of this study is to investigate undergraduate students' perspective on the use of digital competence for academic literacy. This study used 400 EMU undergraduate students comprising of both males and females across all the eleven faculties as sample population. Data were collected with "Digital Competence and Academic Literacy" tool. Data gotten from the instrument were analyzed using frequency, percentage, T-test for testing the significant difference between students' gender and ANOVA for testing the significant differences between students' registered faculty.

The results from this study indicate that EMU undergraduate students' have preference for digital content given via multi-modal forms. Additionally, the results also show that there are significant differences in undergraduate perspective on the use of digital competence for academic literacy according to students' gender and students registered faculty.

Keywords: Digital Competence, Digital Literacy, Academic Literacy, Undergraduate Students

ÖZ

Bu çalışmanın temel amacı, üniversitede lisans eğitimi almakta olan öğrencilerin akademik okuryazırlık kapsamında sayısal yetkinliklerini incelemektedir. Çalışmaya Doğu Akdeniz Üniversitesi'nde (DAÜ) öğrenim görmekte olan 400 öğrenci katılmıştır. Çalışma nicel bir çalışma olarak planlanmış ve tarama yönteminde gerçekleştirilmiştir. Veriler, "Sayısal yetkinlik ve akademik okuryazarlık" veri toplama aracı ile toplanmıştır. Elde edilen veriler betimsel veri analiz yöntemleri, frekans, yüzde, aritmetik ortalama, t-testi ve Anova yöntemleri kullanılarak SPSS ortamında analiz edilmiştir.

Bu çalışmanın sonuçları, DAÜ lisans öğrencilerinin büyük çoğunluğunun çoklu formlarla verilen sayısal içeriği tercih ettiklerini göstermiştir. Ek olarak, sonuçlar lisans öğrencilerinin akademik okuryazarlık için sayısal yetkinliğin kullanımında öğrencilerin cinsiyetine ve kayıtlı fakülte öğrencilerine göre anlamlı farklılıklar olduğunu göstermektedir.

Anahtar Kelimeler: Dijital Yeterlilik, Dijital Okur-yazarlık, Akademik Okuma-yazma, Lisans Öğrencileri.

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Chapter 1

INTRODUCTION

1.1 Introduction

The evolution of technology in social, work-based and study behaviour has not only become a topical issue in education sector but in all spheres of academic disciplines. As technology advances, it gives people additional effective and efficient means of performing their functions and accomplishment of tasks, this caused incessant increase in peoples' dependency on technology. The said advancement is the causal effect of the ever-increasing changes in our contemporary environment and the field of education cannot be isolated.

Gönen, Kocakaya, and Inan (2006), attributed the change in the education system in several communities to the contemporary advancement in technology while Dwyer (1996) also concluded that the application of technology promotes “mastery of basic skills, test scores, writing, and engagement in school”. However, the regular application of ICT has transformed literacy practices in the world we live as a whole, since the university community is also a subset of this global village; undergraduates cannot be excluded (Ala-Mutka et al., 2009).

Contemporary studies have also recognized digital competence as an essential part of the purported 21st Century skills that people should possess, in order to guarantee their effective involvement in all spheres of the society. Ferrari (2012), added that

Digital Competence has been approved as one of the 8 key competences for Lifelong Learning by the European Union. These 8 key competences are:

- Communication in the Mother Tongue.
- Communication in Foreign Languages
- Mathematical Competence and Basic Competences in Science and Technology.
- Digital Competence
- Learning to Learn
- Social and Civic Competences
- Entrepreneurship and
- Cultural Awareness and Expression (Ferrari, 2012).

The important knowledge, skills and attitude that make the pre-requisites to be digitally competent were also recommended by the European Parliament. This required knowledge covers certain areas like knowing the uncertainty associated with internet and online communication, the supportive position of technologies to inventions, and the legal and ethical issues associated with the application of collaborative tools. The capacity to effectively and efficiently manage information, differentiate and establish the correlation between the virtual and the real world, and apply both internet-based services and technologies for aiding critical thinking were highlighted under skills while critical and responsible application of information, readiness to participate in online communities fall under attitude (Ferrari, 2012).

Digital competence can be generally defined as the confident, critical and creative use of ICT to achieve goals related to work, employability, learning, leisure,

inclusion and/or participation in society. According to Ferrari (2012), digital competence is an intersecting proficiency that needs gaining of several additional proficiencies (e.g. language, mathematics, learning to learn, cultural awareness).

In the same vein, Janssen et al., (2013) in a study on specialists' opinions on digital competence concluded that digital competence is a combination of knowledge, skills and attitudes attached to numerous purposes (communication, creative expression, information management, personal development, etc.), domains (daily life, work, privacy & security, legal aspects), and levels.

The consideration of digital competence with respect to learning is of two domains, namely academic and social domain. While the social covers informal learning and hybrid vernaculars, academic domain view learning in the academic area as a component of formal literacy practices in school (Meyers, Erickson, & Small, 2013).

With novel forms of communication, digital media shows the variations in reading and writing activities in academic arena, Cope and Kalentzis (2009) added that the application of digital media needs a novel strategy of instruction for the purpose of developing competence within literacy.

In the same vein, Kuh (2003), in a study on student involvement warns against universities making judgments about policies and practices in the absence of students' engagement data or comparable sources of information. If students are to be placed at the center of decisions about services (academic literacy inclusive) and facilities, it is a forgone conclusion that an understanding of their academic and social practices is required (Kuh, 2003).

Hyland (2009), the growth of digital competence must not concentrate only on the skills of individual, academic institution must also be capable of integrating people into a socio-cultural practice like the academic discourse environment that is made up of a set of individuals that can identify, read and produce common discourse and literacy practices.

Taking cognizance of the dissociation of the academic discourse from informal and expert digital practices, there exist the need to also focus research on the undergraduate students' perspective on digital competence and academic literacy in academic discourse community (i.e. University).

Hutchison and Reinking (2010), concluded that the perceived hindrances for ICT incorporation into the literacy teaching are (i.) absence of technical know-how on what manner should technology be incorporated with teaching, (ii.) absence of development of expert in connection with technology incorporation into teaching, (iii.) absence of adequate knowledge for the evaluation of student's proficiencies in ICT application, (iv.) Students' perception about problems of reading e-texts. These researchers went further to suggest in their findings that the higher the relevance credited by teachers to the numerous applications of ICTs, the higher their improved incorporation was facilitated through (a) the acquisition of competency, (b) decrease in the perceived hindrances, and (c) by better access to facilitative technologies. The acquisition of competency suggested above is only viewed from the teachers' perspective, not addressing the students' perspective on ICT competence.

1.2 Statement of Problem

Educators are of the opinion that in this jet age, students are digital natives, and this made them to see students from the perspective of possessing in-built proficiency in digital technologies and environments. Prensky (2001) stated that digital natives refer to the set of people born and nurtured during digital era starting from the last ten years of the 20th Century, this people carry out their daily activities having and making use of computers, cell phones, internet and several related digital tools while digital immigrants are those born before the digital age but get themselves involved in the application of digital tools via several means. Researches have indicated that the fact that students' dependency on technology in gathering information and also communicate, "a significant number do not use (or possess) the skills we expect digital natives to have" (Bennett, Maton and Kervin, 2008, p. 3.).

Sharimana, Razakb, Noora, (2012) went further to carry out another study on digital literacy competence for academic needs and with focus on Malaysian students and concluded that the results of novel digital technologies for redefining content and literacy has not been completely discovered. Therefore, there exist need for teachers and students to re-assess their sensitivities about what constitute digital literates, in this technological world.

Goodfellow (2011), in a paper titled "Literacy, literacies and the digital in higher education", addressed the question whether the evolving digital literacies are changing higher education in the same manner they are have been acknowledge to have transformed schools, where digital literacy has become the locus of a struggle between ideas of 'education' and 'creativity'. Goodfellow (2011), concluded that the

relation of the transformed pedagogy of digital literacies to the wider significance of critique in the public sphere remains an open, but central, question. Guzmán-Simón, García-Jiménez, and López-Cobo (2017) conducted a similar research in Spain and recommended that future research should compare literacies based on courses of students and as well as gender differences between male and female. This academic research work will contribute to the development of body of literature on the subject matter in North Cyprus because there is absence of literature on the subject matter. In line with this, the inquiry into students' perspective begins, and this necessitates the conduct of this study on Eastern Mediterranean University undergraduate students' perspective on digital competence and academic literacy.

1.3 Purpose of the Study

The main purpose of this study is to investigate undergraduate students' perspective on the use of digital competence for academic literacy.

1.4 Research Questions

In addressing the purpose of the study stated above, the following research questions were raised;

1. What are the Eastern Mediterranean University undergraduate students' perspectives regarding the use of digital competence for academic literacy?

2. What are the Eastern Mediterranean University undergraduate students' perspectives regarding the use of digital competence for academic literacy according to students' gender?

3. What are the Eastern Mediterranean University undergraduate students' perspectives regarding the use of digital competence for academic literacy according to students' registered faculty?

1.5 Significance of the Study

This study is important as it gives summary of undergraduate students' perspective on the use of digital competence for academic purposes. As successful incorporation of university graduates into the labour market become essential and it requires adequate development of digital competencies, it also important to note that deficiency in information and ICT literacies would be the source of difficulties to a successful career development. The findings of this study will allow us to assess students' application of ICT and information literacies for academic literacy.

1.6 Limitations

This research is limited to only registered undergraduate students of Eastern Mediterranean University in the academic term 2018-2019 Fall Semester.

1.7 Definition of Terms

Digital: It denotes to events, tools and platforms connected to new information and communication media (Demirbilek, 2014).

Competence: The state of possessing adequate information, expertise, and attitudes needed in performing up to the required standard in different context (Oxford Dictionary, 2019).

Digital Competence: Is the set of knowledge, skills, attitudes (thus including abilities, strategies, values and awareness) that are required when using ICT and digital media to perform tasks; solve problems; communicate; manage information; collaborate; create and share content; and build knowledge effectively, efficiently, appropriately, critically, creatively, autonomously, flexibly, ethically, reflectively for

work, leisure, participation, learning, socializing, consuming, and empowerment (Ferrari, 2012).

Academic Literacy: Refers to the concepts, strategies and skills needed for reading and writing practices to function effectively in academic areas (Lea & Street 1998).

Chapter 2

LITERATURE REVIEW

In this chapter, the origin and concept of digital competence, its content analysis, aims and relevance, as well as academic literacy are reviewed. In view of the interconnection of Digital competence with other literacies, the chapter discussed the said relationship and went further to analysis the three studies that formed the 21st Century Digital Competence Model and at the end of this chapter, related studies were reviewed

2.1 The Origin of Digital Competence

According to Janssen et al (2013), any step to conceptualize digital competence will definitely result into one pitching tent with theoretical, semantic and lexical terms because of the controversial nature of the name of the concept itself. In order to have a good understanding of the debatable nature of the concept of digital competence, it becomes inevitable to do justices to the dissection of the history of digital competence.

Goodfellow (2011), 'Digital' is the new classifying terminology employed for describing the acceptance of new information and communication media into the field of education. It took over from computer-based, computer-assisted and computer-mediated, 'online', 'networked', 'web-based' and the current and universal 'e-'.

According to Bawden (2001), literacy is the ‘condition of being literate’, while literate is been ‘able to read and write having a competence in or with’. Goodfellow (2011) added that irrespective of the ever-increasing propensity in overall debate for the term ‘literacy’ to be used synonymously with ‘competence’ or ‘ability’ (as in ‘musical literacy’, ‘scientific literacy’, ‘emotional literacy’, etc.) in everyday contexts, it is still largely taken to mean the ability to read and write in a predominantly print context (forms, notices, newspapers, etc.).

Digital competence as used in this study was introduced as “digital literacy” by Gilster, (1997). Though Gilster (1997) did not provide lists of skills, competences or attitudes defining what it is to be digitally literate. Rather, he explained it quite generally, as an ability to understand and to use information from a variety of digital sources and regarded it simply as literacy in the digital age (Lankshear & Knobel, 2011).

According to Bawden (2001), one of these authors is Lanham (1995), who viewed digital literacy as a kind of “multimedia literacy,” quite different from traditional literacy. Lanham (1995), argued that since a digital source could generate many forms of information-text, images, sounds, etc.-a new form of literacy was necessary, in order to make sense of these new forms of presentation. Gilster (1997) concept of digital literacy did not come unexpectedly because there exist a significant group of academic works and real experience about the concept of information and computer literacy.

Bawden (2001), added that information literacy, computer literacy and others such as IT literacy were initiated to a large extent in order to describe sets of certain skills

and knowledge required to discover and treat information in digitalized format. Throughout 1980s, people recognized the term computer literacy, as information literacy gained recognizable status during the 1990s.

2.1.1 Occurrence of Terms in the Literature

According to Bawden (2001), six terms were found to have been used in literature that are synonymous with literacy. These terms are:

1. Information literacy
2. Computer literacy
3. Library literacy
4. Media literacy
5. Network literacy
6. Digital literacy

Bawden (2001) went further to present a scale of usage of the six terms stated above over times, inquiries were embarked on Library and Information Science Abstracts (LISA) and on Social Scisearch, from 1980 to 1999 where duplicates were eliminated and the unique items ranked by publication year. Bawden (2001) stated that more or less, this scale will assist to give a detail account of the changing significance of concepts.

Table 2.1: Occurrence of Terms in the Literature (Bawden, 2001)

	Information	**Computer**	**Library**	**Media**	**Network**	**Digital**
1999	102	22	1	11	4	3
1998	65	18	0	15	4	4
1997	89	30	2	10	4	5
1996	62	34	0	9	1	0
1995	57	26	1	2	1	0

1994	27	32	3	3	1	0
1993	17	15	6	1	0	0
1992	24	14	2	2	0	0
1991	40	15	1	0	0	0
1990	17	6	6	0	0	0
1989	7	13	2	2	0	0
1988	2	8	2	0	0	0
1987	2	19	1	0	0	0
1986	1	15	6	3	0	0
1985	1	30	4	2	0	0
1984	3	36	2	2	0	0
1983	3	44	2	0	0	0
1982	1	10	0	0	0	0
1981	1	8	2	0	0	0
1980	0	0	1	1	0	0

From the above Table 2.1, Information literacy has no appearance in the year 1980, but has 1 appearance in both 1981 and 1982. Its appearances increased to 3 in both 1983 and 1984 and dropped back to 1 in 1985 and 1986. It recorded another increment in appearance starting from 2 in 1987 and 1988, up to 7 and 17 in 1989 and 1990 respectively. The said increment continued to 40 in 1991 before a decline in 1992, 1993, and 1994 with patronage amounting to 24, 17 and 27 respectively. Its patronage continues to grow from 57 in 1995 to 102 in 1999.

Computer literacy has no appearance in literature in 1980 as well, but it recorded more patronage that others starting from 8 in 1981, 10 in 1982, 44 in 1983. Its appearance dropped to 36, 30, 15, 19 to 8 in the year 1984, 1985, 1986, 1987 and 1988 respectively. It recorded the lowest appearance since its inception in 1981 in

the year 1990 where it dropped to 6. Since 1991, computer literacy appearance in literature never maintain a stable but fluctuating patronage till 1999 and it was the commonly used. Though library literacy was also not excluded but it was not as rampant as computer literacy from 1980s – 1990s. Information literacy recorded low patronage in the 80s and its patronage continued to grow in the 90s as well, likewise media literacy which also recorded low patronage in the 80s, recorded high patronage in the 90s. It is not surprising that both network and digital literacy appeared in the late 90s till this contemporary period.

2.2 Competence

Ala-Mutka (2011) recognized the essential components of competence based on its compatibility with the European Qualification Framework. These elements are listed below.

Knowledge means the end product of integration of information through teaching and learning procedure. It is the frame of truths, values, concepts and practices connected to area of disciplines.

Skills cover the ability to make use of the byproduct of the assimilated information gotten via the teaching and learning procedure and apply technical know-how in completing tasks and solving problems. The European Qualifications Framework perceived skills as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments).

Attitudes are said to be motivators of performance, the basis for continued competent performance. It comprises of ethics, values, priorities, responsibility and autonomy.

2.2.1 Digital Competence

In the process of conceptualizing digital competence, Ferrari (2012) in a report dissected fifteen contexts for building digital competence. Several issues like school curricular, accreditation systems, digital literacy initiatives and academia writing form the Ferrari (2012) framework. This frame work has been acknowledged in its broader meaning to be "any systematic conceptualization or organized interconnected competences that tend to improve the digital literacy of a target group".

However, Ferrari (2012) gave detailed account of the concept of digital competence by defining it with the competence areas and levels. Ferrari (2012) merged two thirds of the selected framework in the study to give an all-inclusive *definition* of digital competence as:

"Digital Competence is the set of knowledge, skills, attitudes (thus including abilities, strategies, values and awareness) that are required when using ICT and digital media to perform tasks; solve problems; communicate; manage information; collaborate; create and share content; and build knowledge effectively, efficiently, appropriately, critically, creatively, autonomously, flexibly, ethically, reflectively for work, leisure, participation, learning, socializing, consuming, and empowerment".

2.2.2 Competence Areas

Since the larger part of the selected frameworks stressed more on skills development, Ferrari (2012) disagree by stating that the need for digital competence goes beyond technical skills and went on to suggest 7 competence areas that are compatibility with the contemporary needs. These areas are presented in the diagram below:

Figure 1: Competence Areas (Ferrari, 2012).

2.2.3 Levels

For the purpose of giving learners the opportunity to work at different levels for each competence arear, while taking their needs into consideration, Ferrari (2012) gave the following levels of digital competence:

1. Age of target group
2. Width or depth of the application-related content
3. Cognitive complexity

2.3 The Major Content Analysis of Digital Competence

According to Sharimana et al (2012) study on digital literacy competence for academic needs and with focus on Malaysian students, four main themes were discovered from the content analysis in relation to digital literacy. These themes are; Language barrier, speed, motivation and multimodal forms.

- Language barrier: Since English Language is a second language in Malaysia, English language proficiency is one of the problems that militate against students reading, response and critical understanding of information given via digital content. Additionally, the availability of visual and graphical expositions motivates some students into visiting digital content areas while they employed the use of Google and other related search engines help them to have critical understanding of the subject matter. This shows the significance of the level of awareness of students about the importance of using and assessing digital content in order to acquire important information.
- Speed: The low or zero level of endurance ability required for clicking on digital content such as animated icons, hypertext, sound effects etc. in some students make these set of students switch their preference for readily made information like lessons delivered on YouTube (Lawless, Shrader, and Mayall, 2007). Due to student's short attention span, visually appealing contents are required to keep their attention.

  Youths level of concentration is inversely related to long passage of text and videos most especially when is not for pleasure purposes but for critical understanding purposes (Rowlands et al 2008).

- Motivation: The quest by the students to get information that best suit their numerous interest such as martial arts, online gaming, photo and video editing, fashion and beauty has been discovered by Sharimana et al (2012) as the major drive that triggered their desire for digital content.
- Multimodal Forms: Digital content should be presented in a manner that it will capture the interest of the students and this can be done when digital content is packaged with visual and audio instruments.

From Sharimana et al (2012) study, it was established that students prefer digital content that gives information in a stimulating and quick manner through several multimodal forms with local contents inclusive.

2.4 Digital Competence as the Convergence of Multiple Literacies

As the number of people using technologies keep increasing every day, application of ICT for performing different tasks keeps increasing as well. These increments have been associated with the digitalization of the world as a whole. The essential knowledge, attitudes and skills required to be digitally competent becomes diverse as the world goes digital. Ala-Mutka (2011) reassessed the concept of digital competence and other related literacies that are interpreted with the diagram below.

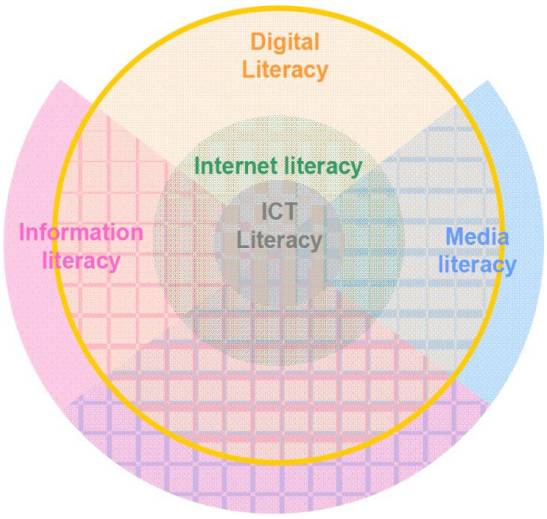

Figure 2: Digital literacy and other related literacies (Ala-Mutka, 2011)

From the above diagram, it shows that ICT, internet, media and information literacy extend and partly covers each other to form what we refer to as digital literacy. All the literacies stated above has a digital element, thus digital literacy is endowed with new ways and tools that are byproducts of technological change and advancement. From inception, digital literacy was perceived to be the ability to use computer, prepare programming codes with theoretical foundation of computer science. To be digitally competent in our contemporary society, it means one must be able to have comprehensive knowledge of digital media since all the medium are digitalized, search and become conscious of information storage and retrieval process, and communicate with others via digital tools and applications such as mobile and internet.

2.5 Aims of Digital Competency

According to Hatlevik and Christophersen (2013), the Norwegian Ministry of Education and Research stand on reading, writing, mathematics, the ability to express oneself orally and the ability to use ICT gave birth to a curriculum reform that serves a causal role in the complete change in the special attention given to

digital competence. Soby and Egeberg (2010) recognized this reform as one of the first several curriculum reforms conducted globally to substantiate the application of ICT as sine qua non to knowledge advancement of students in all spheres of life.

Hatlevik and Christophersen (2013) went further to present the following as the aims of digital competency;

1. It is required of students in the field of social science to be able to accomplish these; read, interpret, use paper and digital maps, the use of scale and character maps are inclusive.
2. It is also required of students in the field of science to be able to use tools for exploration, measurement, visualization, simulation, registration, documentation, field work and experiment publication.
3. As for mathematics students, they should be able to conduct surveys, use databases to search for and analyze statistical data and show source criticism.

From the above competency aims, one can decode the multiple phases of each aims which in essence shows that a competence aims possess many but different actions or parts of digital competence. As a result of the national framework for the application of ICT, competence aims in curriculum with respect to discussion with educators and educational administrators, the three aims of digital competence were identified by Hatlevik and Christophersen (2013) as;

1. Gain and analyze digital information
2. Create digital information
3. Digital judgement

2.6 Relevance of Digital Competence

There are several aspects of life that the citizens, community as well as the society in general benefit from digital competence (Ala-Mukta, 2011). These aspects that people can achieve positive effects of internet are five in number namely;

1. Social Benefits
2. Economic Benefits
3. Civil/Political Benefits
4. Health Benefits
5. Cultural Benefits

Social Benefits: - Internet brought novel networking avenue for the people which made them establish a valuable connection with areas of their interests. The relevance of ICT to the socio-cultural incorporation of migrants and ethnic minorities has been confirmed by Redecker, Hache, and Centeno (2010).

Economic Benefits:- The application of ICT in our daily life activity gave birth to increase in demand for ICT experts. To align with the new trend, employers recruit employees that possess digital competence. On the other hand, digital competence has empowered the consumers as well to broaden their search for lower prices and also perform transactions on digital platforms.

Civil/Political Benefits:- Digital platforms and media instruments are useful in the area of getting citizens informed about contemporary issues happening in their respective countries and the global stage as well, thereby creating avenues to also lend their voices to every policies, legislation and other issues that surround rights.

Health Benefits:- Apart from heavy dependency on the medical professionals by the citizens on medical issues affecting individuals and or communities, digital channels also offer several medical information that are useful for maintaining healthy living and a platform rendering of humanitarian services to those who are in need.

Cultural Benefits:- Social interaction and self-expression has been given a new phase as a result of emergence of internet and other social channels that are digitally inclined. Digital tools and media have been acknowledged that they provide new dimension for lifelong learning avenues that gives room for the emergence of innovative teaching and learning process with student centered methods (Redecker, Ala-Mutka, Bacigalupo, Ferrari, & Punie, 2009).

2.7 Digital Competence as a Human Right

Ferrari (2012) recognizes digital competence as a necessity and rights of people to be able to take active participation in this global village. It has also been demonstrated that people do not follow the swift technological growth and development, and to meet up with the pace, one must be digitally competent.

2.8 Digital Competence for Lifelong Learning

According to Ala-Mutka, Punie, and Redecker (2008), "Learning digital skills not only needs to be addressed as a separate subject but also embedded within teaching in all subjects. Building digital competence by embedding and learning ICT should start as early as possible, i.e. in primary education, by learning to use digital tools critically, confidently and creatively, with attention paid to security, safety, and privacy". It is within this context that Ala-Mutka et al., (2008) suggested the following that lifelong learning strategies need to respond to the growing need for advanced digital competence for all jobs and for all learners.

1. **Activation of pedagogical innovation with digital competence.**
    - *Teacher Education*: Digital competence should be embedded in all academic spheres for instructors and instructions.
    - *Learning digital competence within context*: Learners should be given the room and the encouragement needed to apply ICT in their learning, sourcing for information and creation purposes. In essence, students will not only learn to use digital tools but will also be creative with it.
    - *Innovative learning approaches support for digital competence*: ICT in education put student at the center stage and also give them active engagement in the teaching and learning process, supporting experimental, discovery learning approaches and problem-solving skills.
2. **Inclusion of digital competence in organizational strategies.**
    - *Awareness of the importance of digital competence*: Major stakeholders in education sector (i.e. teachers, headmasters, educational administrators, parents etc.) must be conscious of the relevance of digital competence.
    - *Embed digital competence in its widest sense in all curricula*: Education policy makers must make sure that digital competence is fully embedded in school curricula starting from primary to post primary education. Thus, the students will start building digital competence as early as possible via learning to use digital tools without any iota of doubt, critically and creatively.

- *Support digital competence in lifelong learning strategies*: It is undeniable that ICT is shaping the ways people learn, work and live. Thus, digital competence must be allocated greater portion in lifelong learning strategies.

3. **Acknowledge technological innovation benefits from them.**

- *Review regularly digital skills strategies*: As new technologies and their application in our daily life are invented, novel skills and competence are also needed. This show means that the concept of digital competence should also be dynamic in consonance with the dynamic nature of the digital world.
- *Support informal learning in the emerging online communities:* The rapid emergent of social computing tools has also been establishing new communities for its purposes. Resources required for increasing the awareness of digital competence for learners and platforms like sites for certain groups that informal learners can share between them.
- *Bridge digital competence and e-Skills:* ICT education given by vocational and tertiary institutions, adult education and workplace training must emphasis on advance digital competence.

2.9 Digital Competence Model for 21st Century

Under this section, analysis of all three studies that contributed to the emergence of the digital competence model for 21st century are paid attention to, formation of the structural elements and the conceptual model was presented at the end of this section.

2.9.1 Structure of the Model

Ala-Mutka (2011), stated that there are three studies that are instrumental in developing digital competence model for 21st century. In order to understand the

model, it is important to give detailed information about those three research studies and also understand how they influence the formation of digital competence model for 21st century. These studies are;

Study A by Bawden (2008):

After reviewing some studies, Bawden (2008) came up with this model which recognizes four major components that constitute digital literacy and these elements are;

- **Underpinnings**: This element gives the basic skills that are inevitable.
- **Background knowledge**: This element provides the essential understanding of means that both digital and non-digital information is invented and dispatched, including the various forms of resources gotten.
- **Competences:** These are majorly the elements of digital literacy as propounded by Gilster (1997).
- **Attitudes and perspective:** The reflections of the major aims of digital literacy are captured here.

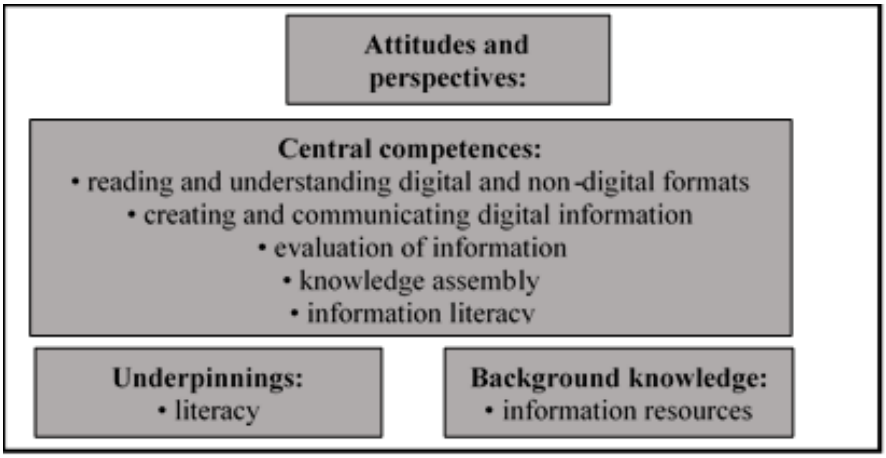

Figure 3: Digital literacy elements (Bawden, 2008).

Stage B by Martin and Grudziecki (2006):

According to Martin and Grudziecki (2006), attestation cannot be given on digital literacy to individual via standardized diploma, but structured with the individual's situation, while applying personal development profile. Martin and Grudziecki (2006) went further to propose 3 stages of the development which are;

1. Digital Competence
2. Digital Usage
3. Digital Transformation.

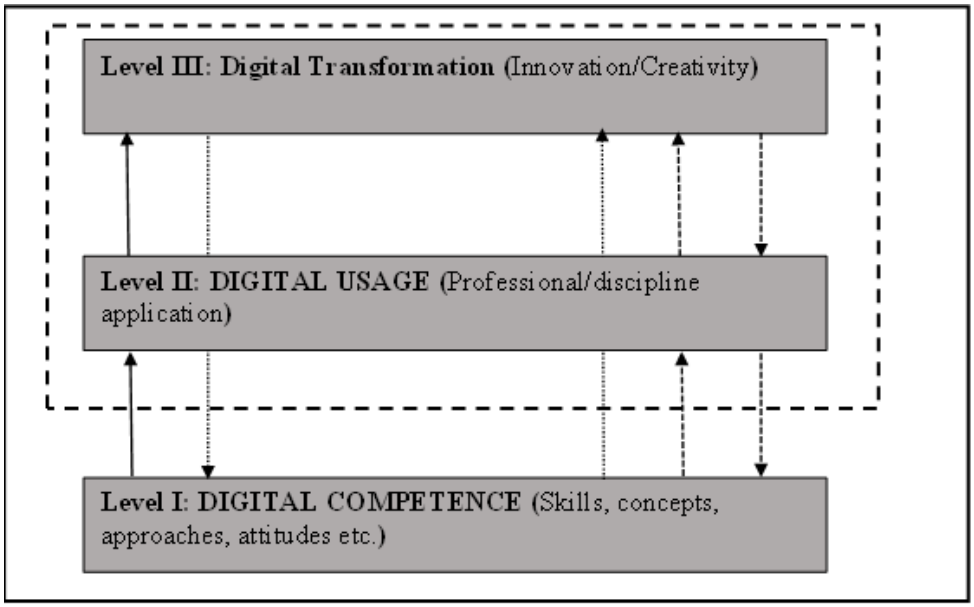

Figure 4: Digital literacy stages by Ala-Mutka (2011).

These stages demand the necessity of everyone possessing a general digital competence, and then develop individual digital usage for professional and other purposes (academic literacy inclusive), that will result to innovations and creative activities via digital transformation.

Study C by Van Deursen (2010):

Van Deursen (2010) model for internet skills propounded for major categories of skills that are incremental in order of complexity.

- **Operational skills:** These skills are applied for using internet browsers (such as Google Chrome, Internet Explorer etc.), search engines (e.g. Google, AOL, Yahoo etc.), and filling of forms online
- **Formal internet skills:** The navigation skills such as clicking on hyperlinks and menus to keep sense of location.
- **Information internet skills:** These skills are used when locating, selecting and assessing information.
- **Strategic information skills:** Skills employed for successful internet achievement activities.

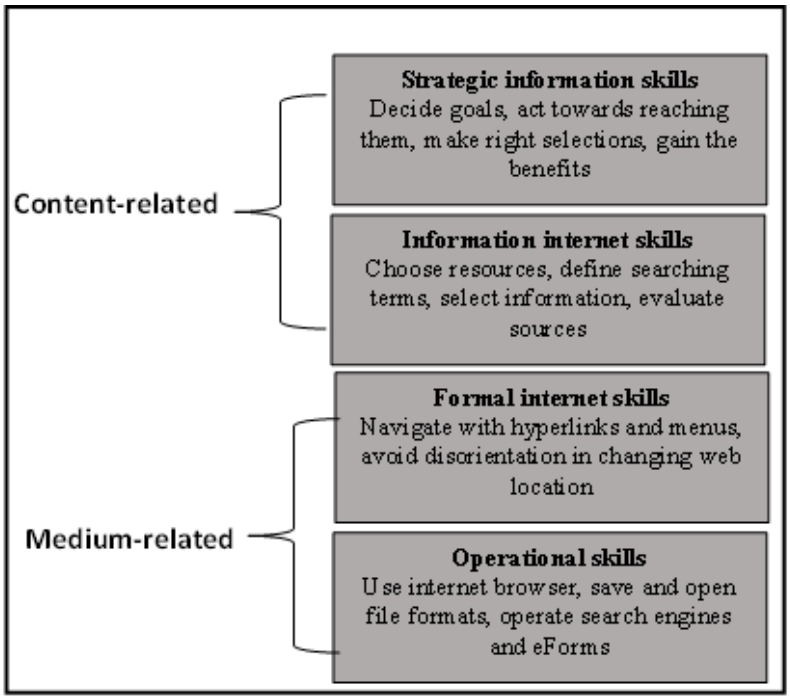

Figure 5: Summary of the Internet skills by Ala-Mutka (2011).

2.9.2 Structural Elements of the Model

To formulate an all-encompassing model suitable for the needs of knowledge age (i.e. 21st century), Ala-Mutka (2011) went on to cluster all the elements of digital competence proposed by the three studies examined above into three major components of competence (i.e. Skills, Knowledge, and attitudes) that are presented in the diagram below;

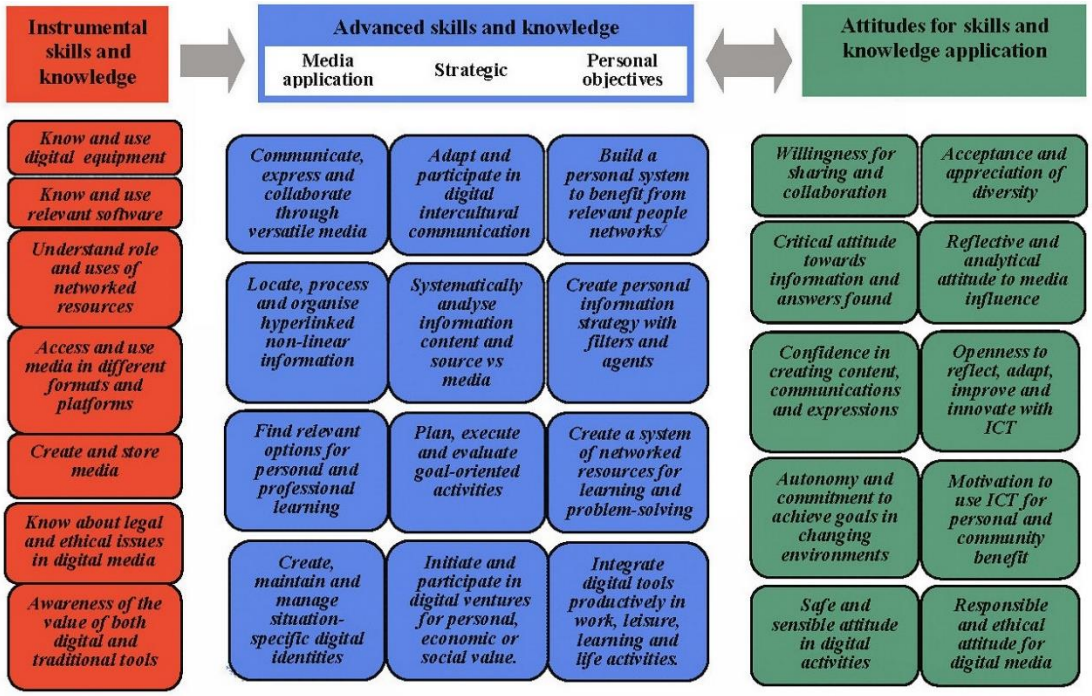

Figure 6: Knowledge, skills and attitude items contributing to Digital Competence by (Ala-Mutka, 2011).

Instrumental Skills and Knowledge: This component covers the required abilities to apply digital tools as a result of the connected, visual and dynamic digital media. It is a prerequisite condition that one must satisfy in order to adequately use other skills in digital arena.

Advanced Skills and knowledge: These skills and knowledge are structured in an increasing manner; ability to use digital tools and media for performing certain tasks and purposes; strategic skills for positive gains from digital environment, integration of these digital areas in digital environment for daily personal aims and objectives.

Attitudes: It covers the ways of reasoning and motivations for actions and thus influence individual's activities in digital arena.

2.9.3 Digital Competence Conceptual Model

Having considered the three studies above as building blocks for the conceptual model of 21st century digital competence by Ala-Mutka (2011). This author proposed this model as an encompassing model that houses all the main competences.

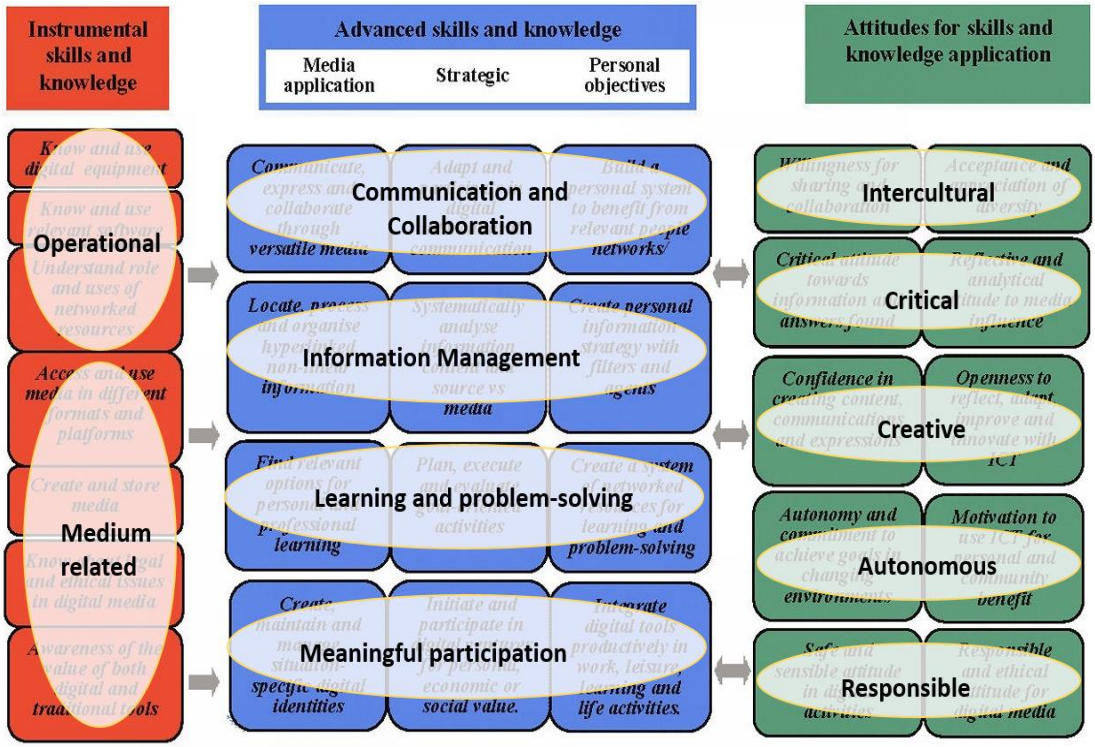

Figure 7: Proposed Digital Competence conceptual model (Ala-Mutka, 2011).

Operational skills and knowledge: These skills and knowledge serves as the precondition for other uses of digital tools. It refers to the skills and knowledge of the technical know-how dimension of digital tools.

Medium related: These skills and knowledge of understanding as well as ability to apply relevant media for purposeful task. It also covers mandatory understanding and skills for opportunities and consciousness of the challenges and risks of digital tools.

Communication and collaboration: In order to be able to gain positively from digital environment based on social and professional connection beyond the physical environment, individuals must be able to build and maintain personal communication network with others.

Information management: Due to the massive quantity of information available in digital environment, the need for individual to be able not to only locate but also critically process and structure information for personal uses becomes crucial. Everyone should be able to build personal information systems to meet up with the dynamic nature of the digital environment.

Learning and problem-solving: Individuals should possess the skills and knowledge needed to benefits from digital instruments and media for learning, working and solving of problems.

Meaningful participation: Individual should be able to use digital tools personally or in collaboration with other parties for locating digital opportunities and also take part in socially important issues.

Intercultural and collaborative attitude: Ability to relate with other people from diverse cultural groups is relevant to making optimal use of digital communication. This ability is also relevant for successful online interaction with social and collaborative attitude for achieving collective interests.

Critical Attitude: As against traditional published media where official checks exists, digital environment does not have official checks on who and what can be published. Thus, people must be conscious of sources, suitability, reliability and issues surrounding the production of the media for performing daily tasks.

Creative attitude: Due to massive resources supplied via digital tools and environment, there is need for individual to move from being a traditional consumer to take active participation and then turn to producer in order to gain optimal benefits of the digital environment. This will be beneficial in producing new innovations and also build the old into new ones.

Responsible attitude: People should be conscious of the risks posed by digital tools and environment personally and to other parties. The issue of ethics is also included because using of other parties work or materials in providing materials that might have direct or indirect impact on others must be handled in ethical manner.

Autonomous attitude: Individual must be aware of their objectives when applying digital tools, in digital environment and also direct their activities towards achieving those objectives.

2.10 Academic Literacy

As far back as mid-1990s, the term ‘academic literacies’ was employed in the UK and it was targeted at the theoretical approaches to student writing (Lillis, 2006). Gourlay (2009), propounded that academic writing should not be viewed from the perspective of just a skill but as a complex, contextually based set of meaning-making practices. The popular study that brought about the term ‘academic literacy’ can be traced to Lea and Street (1998). In this study, these researchers stated that universities conceptions of student literacy seem to target two approaches; a) a study skills approach where skills deficiencies are corrected, and b) a socialization approach that students assimilate academic reading and writing proficiency via active participation.

2.10.1 Academic Writing & Study Support

Ivanic and Lea (2006), recognizes the genesis of contemporary study support that are embedded in language provision in post compulsory education as the problem of teaching writing in UK higher education. During the 1980s, universities made provisions for programs targeted on academic study that they refer to as ‘study support’ or ‘study skills’ (Tyldesley, 2013). Several students view the field of academic writing as a complex field that they strife to access. Knudsen (2014) propounded that the continuous debatable nature of seeing academic writing as a student problem to be solved as against the new form of literacy to be taught.

2.10.2 The Focus of Instruction for Academic Literacy

According to Torgesen, et al., (2007) study on academic literacy instruction for adolescents, six key areas were highlighted for growth in knowledge, reading, and thinking skills. Before diving into the six keys areas, it becomes essential to establish the relationship between the subjects of Torgesen, et al., (2007) study (i.e.

adolescents) and the subjects of this research (i.e. undergraduates). According to American Academy of Pediatrics (2003), there are three stages of adolescence and the age brackets that belong to each of the three stages;

1. Early adolescence - Age 11- 14
2. Middle adolescence – Age 15-17
3. Late adolescence- Age 18-21

From the three stages of adolescence listed above, undergraduates fall under stage 3 (i.e. Late adolescence). This implies that the six key areas highlighted by Torgesen, et al., (2007) study can also be applicable to undergraduates.

These six key areas are;

1. Reading fluency
2. Vocabulary knowledge
3. Domain-specific and domain-general content knowledge
4. High level of reasoning and thinking
5. Cognitive strategies
6. Motivation and engagement.

Reading fluency: Students should be able to take cognizance of new words that they come across when reading with reasonable accuracy when they come across these words for the first time in order for reading practice to promote the development of reading fluency (Ehri, 2002).

Snow, Burns, and Griffin, (1998) stated that students can efficiently take cognizance of new words in text by dissecting its phonological or morphological elements, and

then move on to relate them to a famous word that is included in their general vocabulary.

Vocabulary knowledge: Vocabulary and verbal knowledge has been acknowledged by Schatschneider et al., (2004) to have played essential role in promoting reading. As a result of swift growth in the range of vocabulary in text (Anderson & Nagy, 1992), it becomes essential for students to increase their knowledge of word meanings for the purpose of building understanding of what they read (Torgesen, et al., 2007).

Domain-specific and domain-general content knowledge: For the purpose of increasing students' knowledge base deeply, texts students come across in higher level of education are based on the assumption of the knowledge the students already possessed. There is a need for additional powerful instruction from the teachers for students that have problems with reading text accurately.

High level of reasoning and thinking: Students must be able to keep to their continuous development of ability to deduce propositions to provide conclusions and also engage themselves in critical thinking, as a result of the increasing difficulty of text that students come across during their transition process from one educational level to another (Pressley, 2000).

Cognitive strategies: These strategies are a) self-directed activities like rereading for the purpose of understanding the grey areas, b) paraphrasing to boost memory, c) text visualization from events and relationship, d) underlining and note taking, e)

establishment of detailed relationship between the text, the previous knowledge and areas of the text.

Motivation and engagement: The decline in students' motivation and interest in reading after the early stages is said to be peculiar to those who struggle during their formative period of learning to read.

However, there are two negative end products of this decline as recognized by Torgesen, et al., (2007) that possess constant effects on the development of reading proficiency. These are;

1. There exists an inverse relationship between the reading culture of those that are less motivated in reading and those that have stronger motivation.
2. There is a direct relationship between those that are less motivated to read and their engagement with text while reading.

2.11 Related Studies

Studies have shown that the rate of usage of technologies by the people outside the academic environment is higher when compared to inside of the academic environment. There are many people using digital tools and media while they might have not taken part in any program of instruction for digital competency (Ala-Mutka, 2011).

In this process of establishing the relationship between digital competence and development of academic literacy, Guzmán-Simón, et al (2017) viewed digital competence from the definition propounded by Ferrari (2012), "Digital Competence is the set of knowledge, skills, attitudes (thus including abilities, strategies, values and awareness) that are required when using ICT and digital media to perform tasks;

solve problems; communicate; manage information; collaborate; create and share content; and build knowledge effectively, efficiently, appropriately, critically, creatively, autonomously, flexibly, ethically, reflectively for work, leisure, participation, learning, socializing, consuming, and empowerment".

Pahl and Rowsell, (2012) stated that domains can be recognizes as settings, site-specific, cultural believes and setting that house literacy event practices. Guzmán-Simón et al., (2017) went further to reconceptualize digital competence with respect to academic literacy in discourse community in consonance with Buckingham, (2008). Guzmán-Simón et al., (2017), the development of digital competence in various domains such as home, among peers, academic or professional settings and their connections was presented as given below;

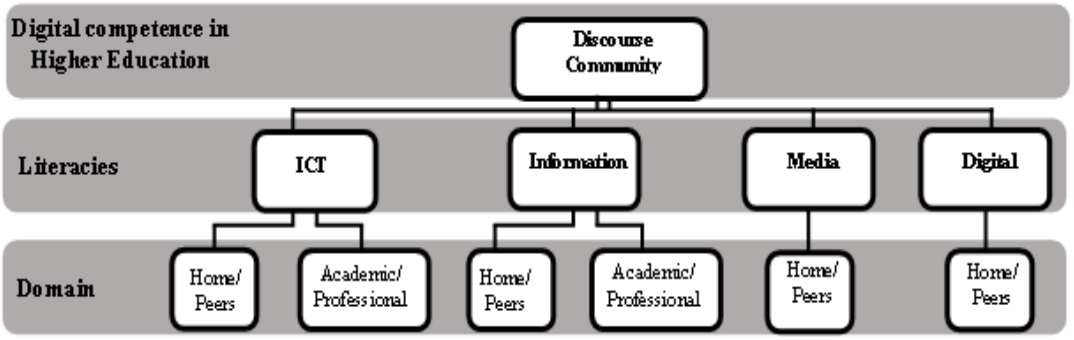

Figure 8: Domains and Literacies of discourse communities in Higher Education (Guzmán-Simón et al., 2017)

Taki and Soleimani (2012) conducted a study on online reading strategy use and gender differences with a case study on Iranian EFL students, with 30 participants (i.e. students) comprising of 15 males and 15 females. The results show that while there is absence of general significant differences between gender (i.e. males and

females) with respect to online reading strategy used, there exist a significant difference on a number of individual strategies.

Fairlie (2016) conducted a study on determine if boys and girls use computers differently, and does the difference contribute to why boys do worse in school than girls with target on disadvantaged schoolchildren. The researcher tested the gender difference between males and females based on time spent using computer, to ascertain if it add to the gender disparity in educational accomplishment and the results shows that males are probably not going to make use of personal computers for academic purposes and will probably going to make use personal computers for other activities like e-games, and females will probably going to make use personal computer for communication via social networking, email and instant messaging compared to males.

Mehmood and Taswir (2013) inspect educational effects of social networking sites on undergraduate students. In order to discover the connection between social networks and effects on students' academic performance, the researchers picked sample of 100 students undergraduate program offered in college. The results of the study shows that some students saw social networking sites as distraction, while larger part of them are making use of social networks for academic purposes.

Demirbilek (2014), conducted another research on 'Digital Natives' with the aim of investigating the digital propensities of university students with sample of 409 undergraduates' from several faculties/colleges in state university situated at southwestern Turkey. The results from this study indicate that faculty attended,

education type, family income, the number of computers and children for each home are some of the important factors in having high digital propensity index.

Foucault and Scheufele (2002) conducted a research on online versus campus store (i.e. bookshops & stationary stores in campus) to determine the reasons why students purchase books on the net. The researchers proposed to examine some social and perceptual motivations for online book buying with a survey of 156 students in Northeastern University. The result of this particular research shows that prior e-purchase, positive social environment, professor support, e-retailers knowledge, and insight that desires will be accomplished online are the indicators of e-buying of books.

Chong (2010) conducted a research on using blog to promote student's initiation into academic research in higher education. This research targets the experiences of three undergraduate students in music course that are making use of blogs owned personally by the students for researcher papers, coupled with blog-based supervision as well from the instructor. The course work is hybrid in nature because it's integrates synchronous learning (i.e. face-to-face) and tutorials with blog sharing and discussion. The blogs are structured in a manner that it is used majorly as their research diaries that they logged in the progress of their work and receive contributions from colleagues and instructor. As a result of self-evaluation of the teaching cum supervision process by the researcher and dissection of students' blog discourse, survey feedback by the students, the researcher concluded that blogging can be used to initiate students into academic research.

Chapter 3

METHODOLOGY

This chapter covers the research design, population and sample of the study, data collection tools, reliability and validity of data as well as the data analysis techniques used in the study.

3.1 Research Design

This study is designed with quantitative survey method. Quantitative method emphasizes objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques (Babbie, 2010). The general survey approach is the method of quantitative paradigm.

According to Ary, Jacobs, Irvine and Walker, D. (2010), quantitative research approach involves the collection of numerical data through objective measurement that requires a well-controlled setting for proffering solutions to questions about phenomenon or test predetermined hypothesis.

Positivism social scientists are the progenitor of quantitative research. Ary et al (2010) added that positivism is a philosophic view that started in Europe as far back as 19th century, with the believe that general principles or laws govern the social world as they do the physical world and that through objective procedures researchers can discover these principles and apply them to understand human behavior (Ary et al., 2010, p.23).

Positivism is regarded as traditional scientific method that covers objective data collection and testing of hypothesis to provide systematic results that are generalizable on the wider populace by the researchers. Neuman (2013) also added that positivism is an organized method for combining deductive logic with precise empirical observations of individual behavior in order to discover and confirm a set of probabilistic causal laws that can be used to predict general patterns of human activity (Neuman, 2013, p. 97). Under quantitative research approaches, there are several forms of survey techniques that are applicable for data collection. Survey is descriptive in attribute, where data are collected from a representative sample of the entire population and the results are generalized for the entire population.

3.2 Population and Sample of the Study

The study was carried out on the undergraduate students of Eastern Mediterranean University, in essence the population of the study are the undergraduate students of Eastern Mediterranean University. The sample of this study were drawn through convenience sampling technique from undergraduate students of Faculty Tourism, Arts and Sciences, Communication and Media Studies, Health Sciences, Medicine, Engineering, Architecture, Dentistry, Pharmacy, Business and Economics and School of Computing and Information Technology who registered at Eastern Mediterranean University for fall semester 2018. Convenience sampling is a nonprobability sampling technique in which samples are selected because of their suitability, and accessibility to researchers (Neuman, 2013). The totals of 400 participants were carefully selected from the eleven faculties listed above for sampling. All the participants were informed of the purpose of this study, and that participation is based on their volition with consent form which clearly states that information provided will only be used for research purposes with the assurance of

confidentiality and anonymity. The demographic information of the participants presented in the frequency tables below.

Table 3.1: Participants of the Study according to Faculty

Faculty Name	Frequency	Percent	Cumulative Percent
ENGINEERING	48	12.0	12.0
HEALTH SCIENCES	29	7.3	19.3
BUSINESS & ECONOMICS	67	16.8	36.0
ART & SCIENCES	40	10.0	46.0
TOURISM	41	10.3	56.3
COMM. & MEDIA STUDIES	28	7.0	63.3
PHARMACY	53	13.3	76.5
COMPUTING AND INFO. TECHNOLOGY	29	7.3	83.8
DENTISTRY	8	2.0	85.8
MEDICINE	21	5.3	91.0
ARCHITECTURE	36	9.0	**100.0**
Total	**400**	**100,0**	

From the Table 3.1 above, 48 participants which constitute 12% of the entire population of the sample are drawn from Faculty of Engineering, 29 participants that consist of 7.3% of the sample are from Faculty of Health Sciences, 67 participants that consist of 16.8% of the sample are from Faculty of Business & Economics, 40 participants that consist of 10% of the sample are from Faculty of Arts & Sciences, 41 participants that amount to 10.3% of the sample are from Faculty of Tourism, while Communication & Media Studies have 28 participants with 7%, Pharmacy

have 53 participants with 13.3%, School of Computing and Information Technology have 29 participants with 7.3%, Dentistry, Medicine and Architecture have the following 8 participants with 2%, 21 participants with 5.3% and 36 participants with 9% respectively.

Table 3.2: Gender of the Participants

		Frequency	**Percent**	**Cumulative Percent**
Valid	Female	195	48.8	48.8
	Male	205	51.3	100.0
	Total	**400**	**100,0**	

From Table 3.2 above, 195 of the sample population with 48.8% are females while 205 with 51.3% of the sample population are males.

3.3 Data Collection Tools

The primary data used in this study were collected directly from the participants by the researcher with survey. "In surveys, data are only collected from a representative sample and the results are inferred to the whole population. Surveys are conducted because it is often impractical or impossible to collect data about an entire population" (Randolph, 2008, p.42).

Data were collected with "Digital Competence and Academic Literacy" tool which was developed by Guzman-Simon, García-Jiménez and López-Cobo, (2017). Responses to questions were measured on a Likert scale of 1 (never) to 6 (always).; which consist of 40 items.

3.4 Data Analysis

Data gotten from the instrument were computed and analyzed with descriptive analysis techniques using frequency, percentage, T-test for testing the significant difference between students' gender and ANOVA for testing the significant differences between students registered faculty. Software Package for the Social Sciences (S.P.S.S) was used for analyzing the data and for easy presentation and interpretation, results from the analysis were summarized and presented in tabular format in the subsequent chapter.

3.5 Reliability and Validity of Data

Reliability is a method that shows the closeness of two or more diverse but connected items used together in measuring the consistency of an instrument. In determining the reliability and internal consistency of the instrument, Cronbach's Alpha or coefficient as developed by Cronbach (1951) was used. According to Guzman-Simon, et al (2017), the previous reliability and validity as conducted by these researchers were 0.75 for information literacy and 0.72 for ICT literacy. For this study, the internal validity of the instrument was determined and presented in the Table 3.3 below.

Table 3.3: Reliability Statistics for Information and ICT Literacy

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.73	.72	19
.80	.79	21

As showed in Table 3.3 above, Cronbach's Alpha for information literacy is 0.73, and 0.80 for ICT literacy which are in conformity with George and Mallery (2003) report of acceptability of alpha coefficient from 0.70. This validity results shows the level that this research instrument measures what it was designed to measure, while reliability means the degree to which the scale produces dependable results.

Chapter 4

FINDINGS AND DISCUSSION

In this chapter, the results of the survey administered by undergraduate students were analyzed and discussed extensively, the results aided in providing answers to the research questions raised in chapter 1.

4.1 Undergraduate students' Perspective regarding the use of Digital Competence for Academic Literacy

Undergraduate students' perspective regarding the use digital competence for academic literacy were assessed with the Table 4.1, Table 4.2, Table 4.3, Table 4.4, Table 4.5, Table 4.6, Table 4.7, Table 4.8, Table 4.9, and Table 4.10 below that shows the frequency, percent, mean as well as standard deviation of the responses with respect to all the items.

Table 4.1: Undergraduate students' Perspective regarding the use of Digital Competence for Academic Literacy (Information Literacy) for Item 1-3

	1		**2**		**3**		**4**		**5**		**6**		**Mean**	**Std. Dev.**
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*		
Item1	92	23.0	117	29.3	105	26.3	57	14.3	15	3.8	14	3.5	2.57	1.28
Item2	13	3.3	21	5.3	31	7.8	63	15.8	117	29.3	155	38.8	4.78	1.34
Item3	111	27.8	98	24.5	85	21.3	45	11.3	33	8.3	28	7.0	2.68	1.52

*Likert Scale Negative (1-3), Positive (4-6).

From Table 4.1, From Item 1, when reading on the net, a total of 314 respondents constituting 78.6% of the entire sample population claimed that they do not interpret text better when there is only a written text, 355 students constituting 83.9% claimed that they interpret text better when the written text is accompanied by an image or an audio-visual element under Item 2 while 73.6% also claimed that they do not interpret text better when there is a link to other pages under Item 3.

With respect to the above interpretation, the results indicate that students interpret text better when the text is accompanied with multimodal element with the highest mean and standard deviation value of 4.47, 1.34, when compared with only a written text and a link to other pages with mean and standard deviation of 2.57, 1.28; 2.68, 1.52 respectively and this is in conformity with Sankey, Birch and Gardiner (2012) research that stated that students gave a very positive preference for the application of multimodal learning elements and suggested that these has aided comprehension and retention.

Table 4.2: Undergraduate students' Perspective regarding the use of Digital Competence for Academic Literacy (Information Literacy) for Item 4-7

	1		**2**		**3**		**4**		**5**		**6**		**Mean**	**Std. Dev.**
	f	*%*	*F*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*		
Item4	88	22.0	88	22.0	90	22.5	46	11.5	55	13.8	33	8.3	2.97	1.58
Item5	68	17.0	63	15.8	78	19.5	77	19.3	48	12.0	66	16.5	3.43	1.67
Item6	74	18.5	76	19.0	71	17.8	64	16.0	70	17.5	45	11.3	3.28	1.65
Item7	9	2.3	13	3.3	14	3.5	65	16.3	107	26.8	192	48.0	5.06	1.19

*Likert Scale Negative (1-3), Positive (4-6).

From Table 4.2, Item 4, 66.5% of the respondents claimed that when they begin to read text, they do not read the document completely. Item 7 show that 91.1% of the respondents claimed that when reading text, they look for information that interest them in a heading or section.

The results suggested that when students are reading text, they read for purpose which make them look for information they are interested in a heading or section with mean and standard deviation value of 5.06, 1.19 compared to reading the document completely which have the lowest mean and standard deviation value of 2.97, 1.58 which is contrary to the results of Guzmán-Simón et al., (2017) that suggest that students read document completely.

Table 4.3: Undergraduate students' Perspective regarding the use of Digital Competence for Academic Literacy (Information Literacy) for Item 8-12

	1		**2**		**3**		**4**		**5**		**6**		**Mean**	**Std. Dev.**
	f	*%*	*F*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*		
Item8	115	28.8	69	17.3	59	14.8	51	12.8	58	14.5	48	12.0	3.03	1.76
Item9	3	0.8	2	0.5	3	0.8	34	8.5	90	22.5	268	67.0	5.52	0.82
Item10	177	44.3	94	23.5	51	12.8	34	8.5	20	5.0	24	6.0	2.24	1.50
Item11	172	43.0	94	23.5	48	12.0	33	8.3	36	9.0	17	4.3	2.29	1.51
Item12	111	27.8	36	9.0	48	12.0	67	16.8	93	23.3	45	11.3	3.32	1.79

*Likert Scale Negative (1-3), Positive (4-6).

From Table 4.3, under Item 8, when students have difficulty in understanding what they are reading, 60.9% of the claimed that they do not use dictionary, while 39.1% claimed that they make use of dictionary. From Item 9, 98% of the respondents with mean and standard deviation 5.52, 0.82 claimed that when they have difficulty in understanding what they are reading, they make use of the internet. Under Item 10,

322 of the respondents constituting 80.6% of the sample size claimed that when they have difficulty in understanding what they are reading, they do not consult encyclopedia. From Item 11, 78.5% with mean and standard deviation value of 2.29, 1.51 claimed that they do not make use of maps and plans. From Item 12 as well, 51.4% claimed that they use drawings and explanatory diagrams when they have difficulty in understanding what they are reading.

Additionally, the results of the high reliance of students on internet for better understanding and clarifications when they have difficulty in understanding what they are reading compared to the use of dictionary, encyclopedia, maps and plans also substantiated the results of Guzmán-Simón et al., (2017).

Table 4.4: Undergraduate students' Perspective regarding the use of Digital Competence for Academic Literacy (Information Literacy) for Item 13-18

	1		**2**		**3**		**4**		**5**		**6**		**Mean**	**Std. Dev.**
	f	*%*	*F*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*		
Item13	108	27.0	52	13.0	63	15.8	66	16.5	68	17.0	43	10.8	3.15	1.73
Item14	108	27.0	52	13.0	63	15.8	66	16.5	68	17.0	43	10.8	3.13	1.79
Item15	115	28.8	55	13.8	61	15.3	47	11.8	74	18.5	48	12.0	3.13	2.71
Item16	92	23.0	45	11.3	31	7.8	67	16.8	102	25.5	63	15.8	3.15	1.73
Item17	184	46.0	105	26.3	47	11.8	32	8.0	22	5.5	10	2.5	2.08	1.33
Item18	93	23.3	68	17.0	50	12.5	68	17.0	65	16.3	56	14.0	3.28	1.76

*Likert Scale Negative (1-3), Positive (4-6).

From Table 4.4, under Item 13, 55.8% claimed that they do not use collection of electronic books in the library, 55.8% also claimed that they do not make use of electronic book devices under Item 14. Under Item 15, 57.9% claimed that they do not make use of digital magazines in the library while 58.1% of the respondents

claimed that they make use of Google Books in the library under Item 16, 47.3% of the respondents claimed that they make of the university library database under Item 18.

For the e-resources used by the students in the library, the results indicate that they make use of university library database and this in consonance with Guzmán-Simón et al., (2017) but in contrary to Griffiths and Brophy (2005) research results that indicated that Forty-five percent of the sample population (i.e. students) under examination use Google as their first port of call to search for materials, with only Ten percent of the students make use of university library catalogue.

Table 4.5: Undergraduate students' Perspective regarding the use of Digital Competence for Academic Literacy (Information Literacy) for Item 19-20

	1		**2**		**3**		**4**		**5**		**6**		**Mean**	**Std. Dev.**
	f	*%*	*F*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*		
Item19	160	40.0	81	20.3	41	10.3	31	7.8	55	13.8	32	8.0	2.59	1.72
Item20	147	36.8	54	13.5	40	10.0	50	12.5	54	13.5	55	13.8	2.93	1.87

*Likert Scale Negative (1-3), Positive (4-6).

From Table 4.5, under Item 19, 70.6% of the respondents claimed that they have not consulted magazines and or articles printed on paper in the library while 60.3% of the claimed that they have not consulted any on digital format in the library. This resulted substantiated Bénaud and Bordeianu (1995) research results that recognized the swing from print to electronic media.

Table 4.6: Undergraduate students' Perspective regarding the use of Digital Competence for Academic Literacy (ICT Literacy) for Item 21-24

	1		**2**		**3**		**4**		**5**		**6**		**Mean**	**Std. Dev.**
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*		
Item21	6	1.5	9	2.3	20	5.0	34	8.5	120	30.0	211	52.8	5.21	1.10
Item22	36	9.0	21	5.3	35	8.8	101	25.3	120	30.0	87	21.8	4.27	1.48
Item23	79	19.8	79	19.8	50	12.5	28	7.0	84	21.0	80	20.0	3.49	1.85
Item24	205	51.3	71	17.8	39	9.8	33	8.3	32	8.0	20	5.0	2.19	1.55

*Likert Scale Negative (1-3), Positive (4-6).

From Table 4.6, 91.2% of the respondents make use of paper as the device for writing with 8.8% rejection under Item 21, while 76.9% claimed that they make use of personal computer for writing in Item 22. Under Item 23, 52.1% showed preference for mobile phones, while 78.9% under Item 24 claimed that they do not make of Tablet for writing and the remaining 21.1% claimed they do.

The result of the above interpretation indicates that students make use of paper such as classroom notebooks and others with higher mean and standard deviation value of 5.21, 1.10 followed by personal computer with mean and standard deviation value of 4.27, 1.48, mobile phone with mean and standard deviation value of 3.49, 1.85, and tablet with the lowest mean and standard deviation value of 2.19, 1.55. This result is in consonance with Guzmán-Simón et al., (2017) and reason can be attributed to the socio-economic status of the students as suggested by Demirbilek (2014) where he stated that students with a low income choose computers and free internet in school, while others choose a mobile phone with limitless internet use. Therefore, students with higher financial status are highly engaged in technologically rich environment with preferences for other devices like Tablet.

Table 4.7: Undergraduate students' Perspective regarding the use of Digital Competence for Academic Literacy (ICT Literacy) for Item 25-27

	1		**2**		**3**		**4**		**5**		**6**		**Mean**	**Std. Dev.**
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*		
Item25	15	3.8	2	0.5	16	4.0	52	13.0	112	28.0	203	50.8	5.13	1.19
Item26	114	28.5	86	21.5	68	17.0	46	11.5	47	11.8	39	9.8	2.85	1.67
Item27	146	36.5	90	22.5	77	19.3	39	9.8	29	7.3	19	4.8	2.43	1.47

*Likert Scale Negative (1-3), Positive (4-6).

From Table 4.7, Item 25, 367 respondents constituting 91.8% make use of social networks; 33% also agreed that they make use of personal blog as 67% rejected the same medium under Item26.

The most used medium by students according to the results is social networks with mean and standard deviation value of 5.13, 1.19 followed by blogs and monographic pages. This result is in total agreement with Guzmán-Simón et al., (2017), and it also substantiated the general perception about the usage of social networking sites for academic purposes in Mehmood et al (2013) study where the results indicate that but the larger part of students are making use of social networks for academic purposes, while little saw social networking sites as distraction but if well managed will still bring about positive outcomes.

Table 4.8: Undergraduate students' Perspective regarding the use of Digital Competence for Academic Literacy (ICT Literacy) for Item 28-32

	1		**2**		**3**		**4**		**5**		**6**		**Mean**	**Std. Dev.**
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*		
Item28	129	32.3	84	21.0	66	16.5	40	10.0	41	10.3	40	10.0	2.75	1.68
Item29	180	45.0	80	20.0	75	18.8	34	8.5	20	5.0	11	2.8	2.16	1.35
Item30	196	49.0	90	22.5	51	12.8	38	9.5	10	2.5	15	3.8	2.05	1.35

Item31	94	23.5	66	16.5	79	19.8	51	12.8	65	16.3	45	11.3	3.15	1.69
Item32	23	5.8	12	3.0	16	4.0	64	16.0	111	27.8	174	43.5	4.87	1.39

*Likert Scale Negative (1-3), Positive (4-6).

From Table 4.8, Item 28 show that only 30.2% of the respondents make use of blogs when writing, 16.2% for faction under Item 29, 15.5% for flicker stories under Item 30. From Item 31, 40.2% of the students make use of web pages of participative writing, 87.2% make of YouTube channels when writing as showed under Item 32.

The result also indicates that students make of YouTube Channels with mean and standard deviation value of 4.8750, 1.39076, compared to others like blogs, flicker stories etc. This particular result is in contrary to Guzmán-Simón et al., (2017) which have blogs over YouTube Channels and others. However, Chong (2010) has recognized blogging as a means to promote students' initiation into academic research.

Table 4.9: Undergraduate students' Perspective regarding the use of Digital Competence for Academic Literacy (ICT Literacy) for Item 33-36

	1		**2**		**3**		**4**		**5**		**6**		**Mean**	**Std. Dev.**
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*		
Item33	36	9.0	11	2.8	20	5.0	74	18.5	113	28.3	146	36.5	4.63	1.52
Item34	37	9.3	23	5.8	48	12.0	80	20.0	105	26.3	107	26.8	4.28	1.56
Item35	88	22.0	75	18.8	81	20.3	37	9.3	56	14.0	63	15.8	3.21	1.76
Item36	134	33.5	70	17.5	60	15.0	61	15.3	36	9.0	39	9.8	2.78	1.69

*Likert Scale Negative (1-3), Positive (4-6).

From Table 4.9, 83.2% of participants claimed that when writing in digital media, text written using digital platform generally include photographs and images under Item 33, 72.9% also showed preference for videos under Item 34. This result shows that the most supportive sources used when writing on digital platforms are photographs or images and videos, having computer simulation as the least and it also substantiate undergraduate students' preference for inclusion of multimodal elements in reading and writing for academic purposes.

However, as students maintain their preference for digital content in multimodal forms in digital environment, care need to be taken not to get distracted from the causal effects of reading and writing on digital platforms for academic purposes (Mehmood et al 2013).

Table 4.10: Undergraduate students' Perspective regarding the use of Digital Competence for Academic Literacy (ICT Literacy) for Item 37-40

	1		**2**		**3**		**4**		**5**		**6**		**Mean**	**Std. Dev.**
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*f*	*%*	*F*	*%*		
Item37	27	6.8	12	3.0	16	4.0	47	11.8	103	25.8	195	48.8	4.93	1.45
Item38	88	22.0	75	18.8	81	20.3	37	9.3	56	14.0	63	15.8	3.50	1.85
Item39	72	18.0	34	8.5	73	18.3	63	15.8	92	23.0	66	16.5	3.66	1.71
Item40	172	43.0	96	24.0	63	15.8	29	7.3	18	4.5	22	5.5	2.22	1.45

*Likert Scale Negative (1-3), Positive (4-6).

From Table 4.10, under Item 37, 86.4% of the respondents gave positive response for Bookshops as the normal place for book buying, 38.9% claimed that they buy books online under Item 38, as 17.5% also claimed that they buy books at news stand. This result shows that despite the high patronage of Bookshops and stationary stores,

students still apply the digital competence in buying books online and this result is in consonance with Foucault and Scheufele (2002).

4.2 Undergraduate students' Perspective regarding the use of Digital Competence for Academic Literacy according to students' gender

T-test was conducted on the 40 items with respect to gender to determine undergraduate students' perspective regarding the use of digital competence for academic literacy according to students' gender, and the summary of the results are presented below.

Table 4.11: Undergraduate students' Perspective regarding the use of Digital Competence for Academic Literacy according to students' gender.

	Gender	**N**	**Mean**	**Std. Dev.**	**T**	**df**	**P**
Item 1	Female	195	2.44	1.28	-1.97	398	0.04
	Male	205	2.69	1.26			
Item 2	Female	195	4.94	1.20	2.277	398	0.02
	Male	205	4.63	1.45			
Item 10	Female	195	1.96	1.33	-3.628	398	0.00
	Male	205	2.50	1.61			
Item 14	Female	195	2.87	1.70	-2.832	398	0.00
	Male	205	3.38	1.83			
Item 21	Female	195	5.32	1.97	2.014	398	0.04
	Male	205	5.10	1.19			
Item 37	Female	195	5.18	1.22	3.485	398	0.01
	Male	205	4.68	1.60			

From Table 4.11, the result suggests that there was a significant difference in the result of Item 1 that states that when reading online participants interpret best when it

is only a written text for Female (M= 2.44, SD= 1.28) and Male (M= 2.69, SD= 1.26) conditions t (398) = -1.97, p=0.04. This result is in contrary to the research of Taki et al (2012), where results shows that while there is absence of general significant differences between gender (i.e. males and females) with respect to online reading strategy used, but there exists a significant difference on a number of individual strategies.

There was a significant difference in the result of Item 2 that states that when reading online participants interpret best when text is complemented with image or multimodal element for Female (M= 4.94, SD= 1.20) and Male (M= 4.63, SD= 1.26) conditions t (398) = 2.27, p=0.02.

There was a significant difference in the result of Item 10 that states that when reading a book or magazine and students have difficulties with understanding or want to increase their knowledge they make use of encyclopedia for Female (M= 1.96, SD= 1.33) and Male (M= 2.50, SD= 1.61) conditions t (398) = -3.83, p=0.00.

There was a significant difference in the result of Item 14 that states electronic devices used in the library for Female (M= 2.87, SD= 1.70) and Male (M= 3.38, SD= 1.83) conditions t (398) = -2.83, p=0.00. This result is in contrary to Hargittai and Shafer (2006) work, that the results claimed that there is no significant difference on males and females' online abilities. However, the researchers also claimed that their result shows female's self-assessed e-skill is significantly lower when compared to male.

There was a significant difference in the result of Item 21 which states that students usually write with paper for Female (M= 5.32, SD= 0.97) and Male (M= 5.10, SD= 1.19) conditions t (398)= 2.014, p=0.04. This result was in support of Pajares and Valiante (2001) research that reveals that gender difference in students' writing is frequent and solid, as well as Mohan, Kamath, Manish, and Eesha, (2010) work, that indicated that females were liable to write notes as lecture progresses while Males have preference for handouts compared to personal note writing.

There was a significant difference in the result of Item 37 which states that students usually by books at the bookshop for Female (M= 5.18, SD= 1.22) and Male (M= 4.68, SD= 1.60) conditions t (398)= 3.485, p=0.01.

4.3 Undergraduate students' Perspective regarding the use of Digital Competence for Academic Literacy according to students' registered faculty.

One-way ANOVA test was conducted on all the 10 questions comprising of 40 items with respect to students registered faculty to determine if there exist significant difference in undergraduate students' perspective regarding the use of digital competence for academic literacy according to students' registered faculty, and the summary of the results are presented subsequent tables.

Table 4.12: Undergraduate students' Perspective regarding the use of Digital Competence for online reading and interpretation according to students' registered Faculty.

Faculty	**Item 1**		**Item 2**		**Item 3**	
	Mean	**Std. Dev.**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
F1	3.10	1.62	4.91	1.38	3.02	1.63
F2	2.79	1.54	4.64	1.35	3.01	1.77
F3	2.50	1.24	4.67	1.71	2.55	1.72
F4	2.58	1.30	4.95	0.92	2.17	1.15
F5	2.35	1.12	4.10	1.54	2.57	1.34
F6	2.69	1.27	4.86	1.33	2.81	1.46
F7	2.55	1.02	4.65	1.60	2.58	1.72
F8	2.00	0.75	5.25	0.88	2.87	1.35
F9	2.09	0.70	5.28	0.64	2.19	0.74
F10	2.44	0.82	5.27	0.79	2.03	0.82
F11	2.00	0.82	4.55	1.38	3.13	1.60
Total	2.57	1.28	4.78	1.34	2.68	1.52

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

Table 4.13: Undergraduate students' Perspective regarding the use of Digital Competence for online reading and interpretation according to students' registered Faculty.

		Sum of Squares	Df	Mean Square	F	P	Significant Difference
I1	Between Groups	38.78	10	3.87	2.45	.00	F1/3, 5, 8, 9, 10, 11.
	Within Groups	615.25	389	1.58			F2/9, 11.
	Total	654.04	399				F4/11.
							F6/11.
I2	Between Groups	33.41	10	3.34	1.89	.04	F1/5.
	Within Groups	687.52	389	1.76			F2/10.
	Total	720.93	399				F4/5.
							F5/6, 9, 10.
							F11/9, 10.
I3	Between Groups	50.87	10	5.08	2.24	.01	F1/4, 9, 10.
	Within Groups	881.05	389	2.26			F2/4, 9, 10.
	Total	931.93	399				F4/6, 11.
							F11/6, 9, 10.

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

As shown in Table 4.12 above, the mean value of students digital competence used for online reading and interpretation with respect to diverse faculties for Item 1, Item 2 and Item 3 are different, as presented in Table 4.13 above, the result suggests that under Item 1 that states that when reading on the internet, students interpret the text better when there is only a written text, Engineering (F1) is statistically significant with Art & Sciences (F3), Comm. Media (F5), Dentistry (F8), Medicine (F9), Health Sciences (F10), and Architecture (F11) at [F(38.78, 615.25) =2.45, p= 0.00].

Item 2 that states that when reading on the internet, students interpret the text better when text is accompanied by image or an audio-visual element, Comm. Media (F5) statistically significant with Pharmacy (F6), Medicine (F9), and Health Sciences (F10) at [F(33.41, 687.52) =1.89, p= 0.04]. This result can be attached to the fact that Communication and Media is field of study that is concerned about who said what, through which channel and to whom?. This made their students to have preference for multimodal elements to the point whereby some of their students are specialists in creating multimodal elements.

Item 3 that states that when reading on the internet, students interpret the text better when there is a link to other pages, Architecture (F11) statistically significant with Pharmacy (F6), Medicine (F9), and Health Sciences (F10) at [F(50.87, 881.05) =2.24, p= 0.01].

These results can be associated online reading skills and navigation strategies used by the students when reading online (Salmerón & García, 2011), and as well as endurance ability of students, as students look for digital information in a quick manner, some of them can not afford to be patient for navigating from one page to another. This make it visible that undergraduate perspective regarding the use of digital competence for academic literacy is extremely affected by the mode of information presentation.

Table 4.14: Undergraduate students' Perspective regarding the reading strategy according to students' registered Faculty.

Faculty	**Item 4**		**Item 5**		**Item 6**	
	Mean	**Std. Dev.**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
F1	3.20	1.82	3.68	1.78	3.89	1.60

F2	2.89	1.67	4.02	1.63	3.59	1.77
F3	2.72	1.46	4.00	1.69	3.47	1.88
F4	3.73	1.56	2.43	1.26	2.26	0.97
F5	2.92	1.74	3.53	1.71	2.57	1.31
F6	2.90	1.53	3.60	1.52	3.86	1.61
F7	2.65	1.44	4.24	1.70	3.37	1.39
F8	2.00	1.06	2.75	1.16	3.12	1.95
F9	2.38	0.92	2.00	0.70	2.09	0.83
F10	2.79	1.20	1.96	0.86	2.10	1.04
F11	3.36	1.67	3.63	1.58	4.16	1.46
Total	2.97	1.58	3.43	1.67	3.28	1.65

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

Table 4.15: Undergraduate students' Perspective regarding the reading strategy according to students' registered Faculty.

		Sum of Squares	**Df**	**Mean Square**	**F**	**P**	**Significant Difference**
I4	Between Groups	53.63	10	5.36	2.19	.01	F1/8, 9. F2/4. F4/5, 6, 7, 8, 9, 10. F11/8, 9.
	Within Groups	949.16	389	2.44			
	Total	1002.79	399				
I5	Between Groups	211.96	10	21.19	9.04	.00	F1/4, 9, 10. F2/4, 8, 9, 10. F3/4, 8, 9, 10. F4/5, 6, 7, 11. F6/9, 10. F11/9, 10.
	Within Groups	912.07	389	2.34			
	Total	1124.04	399				

	Between Groups	199.18	10	19.91	8.71	.00	F1/4, 5, 9, 10.
	Within Groups	888.75	389	2.28			F2/4, 5, 9, 10.
	Total	1087.93	399				
I6							F3/4, 5, 9, 10, 11.
							F4/6, 7, 11.
							F5/7, 11.
							F6/5, 9, 10.

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

As shown in Table 4.14 above, the mean value of students reading strategies use when reading document with respect to diverse faculties for Item 4, Item 5 and Item 6 are different. However, as presented in Table 4.15 above, Item 4 which states that when reading a text, students begin by reading the entire document; Tourism (F4) is statistically significant with Comm. Media (F5), Pharmacy (F6), Computing & Tech (F7), Dentistry (F8), Medicine (F9), and Health Sciences (F10) at [F(53.635, 949.163) =2.198, p= 0.017].

Item 5 which states that when reading a text, students begin by reading a fragment or part of the text; Art & Sciences (F3) is statistically significant with Tourism (F4), Dentistry (F8), and Medicine (F9) at [F(211.965, 912.075) =9.040, p= 0.000].

Item 6 which states that when reading a text, students begin with a quick or superficial overview; Art & Sciences (F3) is statistically significant with Tourism

(F4), Comm. Media (F5), Medicine (F9), Health Sciences (F10), and Architecture (F11) at [F(199.181, 888.757) =8.718, p= 0.000].

The above differences can be attached to the individual reading skills and strategies adopted by the students, and it also shows that students are reading with purpose, either to memorize for retention of information or getting a particular grade Linderholm (2006). This reveal that undergraduate perspective regarding the use of digital competence for academic literacy is extremely affected by the reading strategy according to students' registered Faculty.

Table 4.16: Undergraduate students' Perspective regarding the resources used for aiding better understanding when reading according to students' registered Faculty.

Faculty	**Item 8**		**Item 10**		**Item 11**		**Item 12**	
	Mean	**Std. Dev.**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
F1	2.35	1.65	2.87	1.86	2.68	1.83	3.29	2.03
F2	3.23	1.96	2.26	1.60	2.08	1.41	2.92	1.82
F3	2.77	1.76	2.70	1.85	1.75	1.05	3.25	1.94
F4	2.78	1.52	1.95	0.94	2.41	1.46	2.51	1.30
F5	3.00	1.78	2.14	1.45	1.71	1.21	2.28	1.73
F6	3.22	1.87	1.88	1.26	2.05	1.35	2.86	1.67
F7	2.75	1.68	2.44	1.72	2.10	1.39	3.34	1.69
F8	2.75	1.28	1.37	0.51	2.12	0.64	4.50	0.53
F9	4.14	1.19	1.71	0.71	1.95	0.74	4.61	0.80
F10	4.34	1.36	1.86	0.74	1.62	0.67	4.37	1.14
F11	2.41	1.51	2.44	1.62	4.36	1.43	4.72	1.34
Total	3.03	1.76	2.24	1.50	2.29	1.51	3.32	1.79

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

Table 4.17: Undergraduate students' Perspective regarding the resources used for aiding better understanding when reading according to students' registered Faculty.

		Sum of Squares	Df	Mean Square	F	P	Significant Difference
I8	Between Groups	124.51	10	12.45	4.32	.00	F1/2, 6, 9, 10. F2/9, 10, 11. F3/9, 10. F4/9, 10. F5/9, 10. F6/9, 10, 11. F7/9, 10. F8/9, 10. F11/9, 10.
	Within Groups	1119.12	389	2.87			
	Total	1243.64	399				
I10	Between Groups	56.85	10	5.68	2.61	.00	F1/2, 4, 5, 6, 7, 8, 9, 10. F3/4, 6, 8, 9, 10.
	Within Groups	847.13	389	2.17			
	Total	903.99	399				
I11	Between Groups	205.76	10	20.57	11.31	.00	F11/1, 2, 3, 4, 5, 6, 9, 10. F3/4. F4/5, 10. F6/9, 10.
	Within Groups	707.42	389	1.81			
	Total	913.19	399				
I12	Between Groups	228.11	10	22.81	8.42	.00	F11/1, 2, 3, 4, 5. F4/7, 8, 9, 10. F5/7, 8, 9, 10.
	Within Groups	1053.63	389	2.70			
	Total	1281.75	399				

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

As shown in Table 4.16 above, the mean value of resources consulted by students when they face difficulties with understanding what they are reading with respect to diverse faculties for Item 8, Item 10, Item 11 and Item 12 are different, these differences can be attached to resources used by students. However, as presented in Table 4.17, Item 8 which states that when students have difficulty understanding what they are reading for academic purposes, they use a dictionary for more clarification; Bus & Economics (F2) have statistical significant difference with Medicine (F9), and Health Sciences (F10), and Architecture (F11) at [F(124.51, 1119.12) =4.32, p= 0.00].

Item 10 which states that when students have difficulty understanding what they are reading, they make use an encyclopedia; Engineering have statistical significant difference with Bus & Economics (F2), Tourism (F4), Comm. Media (F5) Pharmacy (F6), Computing & Tech (F7), Dentistry (F8), Medicine (F9), and Health Sciences (F10), at [F(56.85, 847.13) =2.61, p= 0.00].

Item 11 which states that when students have difficulty understanding what they are reading, they rely on maps, plans etc; Architecture (F11) have statistical significant difference with Engineering (F1), Bus & Economics (F2), Art & Sciences (F3), Tourism (F4), Comm. Media (F5) Pharmacy (F6), Computing & Tech (F7), Dentistry (F8), Medicine (F9), and Health Sciences (F10) at [F(205.76, 707.42) =11.31, p= 0.00].

Item 12 which states that when students have difficulty understanding what they are reading, they rely on drawings and explanatory diagrams; Architecture (F11) have statistical significant difference with Engineering (F1), Bus & Economics (F2), Art & Sciences (F3), Tourism (F4), and Comm. Media (F5) at [F(228.11, 1053.63) =8.422, p= 0.00].

According to the above results, Map and plans reading are part of the major areas of Architecture, though another section under the field of Architecture called interior architecture may not likely make use of map and plans reading, while Engineering, Medicine also make use of drawings and explanatory diagrams for better understanding of the anatomy of mammals. It can be said the resources consulted by students when they face difficulties with understanding what they are reading with respect to diverse faculties serves as important factors in undergraduate perspective regarding the use of digital competence for academic literacy according to students' registered Faculty.

Table 4.18: Undergraduate students' Perspective regarding the digital format or electronic resources used in the library according to students' registered Faculty.

Faculty	**Item 14**		**Item 16**		**Item 18**	
	Mean	**Std. Dev.**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
F1	3.50	1.87	3.52	1.97	3.16	1.84
F2	3.77	1.84	3.49	1.95	2.95	1.84
F3	3.62	1.87	3.05	1.98	2.67	1.89
F4	2.58	1.62	3.56	1.68	4.02	1.52
F5	3.21	2.00	3.35	1.80	2.75	1.73
F6	2.98	1.69	3.33	1.80	3.07	1.78
F7	3.13	1.94	3.24	1.88	3.06	1.83
F8	3.50	1.60	4.25	1.48	3.75	1.58
F9	2.38	0.97	4.61	0.74	4.09	1.37

F10	2.20	1.08	4.41	1.40	4.27	0.92
F11	2.80	1.81	3.77	1.77	3.36	1.69
Total	3.13	1.79	3.57	1.81	3.28	1.76

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

Table 4.19: Undergraduate students' Perspective regarding the digital format or electronic resources used in the library according to students' registered Faculty.

		Sum of Squares	**Df**	**Mean Square**	**F**	**P**	**Significant Difference**
I14	Between Groups	99.248	10	9.925	3.262	.000	F1/4, 9, 10. F2/4, 6, 9, 10, 11. F3/4, 9, 10, 11. F7/10. F5/10.
	Within Groups	1183.462	389	3.042			
	Total	1282.710	399				
I16	Between Groups	67.540	10	6.754	2.095	.024	F9/1, 2, 3, 4, 5, 6, 7. F10/1, 2, 3, 4, 5, 6, 7.
	Within Groups	1254.058	389	3.224			
	Total	1321.598	399				
I18	Between Groups	101.139	10	10.114	3.453	.000	F1/4, 9, 10. F2/4, 9, 10. F4/3, 5, 6, 7. F9/5, 6, 7. F10/5, 6, 7, 11.
	Within Groups	1139.501	389	2.929			
	Total	1240.640	399				

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

As shown in Table 4.18 above, the mean value of the digital format or electronic resources used in the library by students with respect to diverse faculties for Item 14, Item 16, and Item 18 are different. Additionally, as presented in Table 4.19, Item 14 which states that students use electronic devices in the library; Bus & Economics (F2) have statistical significant difference with Tourism (F4), Pharmacy (F6), Medicine (F9), Health Sciences (F10), and Architecture (F11) at [F(99.24, 1183.46) =3.26, p= 0.00].

Item 16 which states that students use Google Books in the library; Medicine (F9) have statistical significant difference with Engineering (F1), Bus & Economics (F2), Art & Sciences (F3), Tourism (F4), Comm. Media (F5) Pharmacy (F6), and Computing & Tech (F7) at [F(67.54, 1254.05) =2.09, p= 0.02].

Item 18 which states that students use University library database; Health Sciences (F10) have statistical significant difference with Comm. Media (F5) Pharmacy (F6), Computing & Tech (F7) at [F(101.13, 1139.50) =3.45, p= 0.00].

These differences can be attached to the digital competence level of the students in terms of skills needed in making adequate use of digital devices. However, it shows that there is significant difference in undergraduate students' perspective regarding the digital format or electronic resources used in the library according to students' registered Faculty.

Table 4.20: Undergraduate students' Perspective regarding consultation of magazines and/or articles in the library according to students' registered Faculty.

Faculty	Item 19		Item 20	
	Mean	Std. Dev.	Mean	Std. Dev.
F1	2.85	1.97	2.91	2.08
F2	3.04	2.04	3.05	2.05
F3	2.52	1.96	2.85	2.13
F4	2.21	1.10	2.02	1.08
F5	3.03	1.89	3.17	1.84
F6	2.30	1.68	3.18	2.10
F7	2.55	1.86	2.89	2.05
F8	1.87	0.99	2.75	1.16
F9	1.57	0.67	2.95	1.32
F10	2.75	1.15	2.51	1.08
F11	2.61	1.51	3.72	1.75
Total	2.59	1.72	2.93	1.87

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

Table 4.21: Undergraduate students' Perspective regarding consultation of magazines and/or articles in the library according to students' registered Faculty.

		Sum of Squares	Df	Mean Square	F	P	Significant Difference
I19	Between Groups	59.72	10	5.97	2.05	.02	F1/9. F2/4, 6, 9. F9/3, 5, 7, 10, 11.
	Within Groups	1133.03	389	2.91			
	Total	1192.76	399				
I20	Between Groups	68.10	10	6.81	1.98	.03	F4/1, 2, 3, 5, 6, 11. F11/1, 2, 3, 10.
	Within Groups	1333.32	389	3.42			
	Total	1401.43	399				

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

As shown in Table 4.20 above, the mean value of the magazines and or articles consulted in the library by students with respect to diverse faculties for Item 19, and Item 10 are different, these differences can be attached to their individual preference for magazines or articles printed on paper or digital format. Additionally, as presented in Table 4.21, Item 19 which states that student consulted any magazine and or articles in the library printed on paper; Medicine (F9) have statistical significant difference with Art & Sciences (F3), Comm. Media (F5), Computing & Tech (F7), Health Sciences (F10), and Architecture (F11) at [F(59.72, 1133.03) =2.05, p= 0.02].

Item 20 which states that student consulted any magazine and or articles in the library in digital format; Tourism (F4) have statistical significant difference with Engineering (F1), Bus & Economics (F2), Art & Sciences (F3), Comm. Media (F5) Pharmacy (F6), and Architecture (F11) at [F(68.108, 1333.329) =1.987, p= 0.034].

The above interpretation shows that despite the print to electronic media migration as stated by Bénaud et al (1995), not all students are following the trend of the migration, and it also reveals that there is significant difference in undergraduate students' perspective regarding consultation of magazines and/or articles in the library according to students' registered Faculty.

Table 4.22: Undergraduate students' Perspective regarding the device used for writing according to students' registered Faculty.

Faculty	Item 21		Item 23	
	Mean	Std. Dev.	Mean	Std. Dev.
F1	5.31	1.11	3.83	2.01
F2	5.02	1.43	4.31	1.94
F3	5.17	1.31	3.55	1.97
F4	5.36	0.76	2.46	1.32
F5	4.39	1.44	3.96	1.81
F6	5.54	0.66	3.81	1.77
F7	5.13	1.09	3.51	1.99
F8	5.50	0.53	2.50	0.92
F9	5.28	0.64	2.04	0.80
F10	5.44	0.68	2.75	1.47
F11	5.22	0.92	3.47	1.69
Total	5.21	1.10	3.49	1.85

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

Table 4.23: Undergraduate students' Perspective regarding the device used for writing according to students' registered Faculty.

		Sum of Squares	Df	Mean Square	F	P	Significant Difference
I21	Between Groups	31.03	10	3.10	2.66	.00	F1/5. F2/5, 6. F3/5. F4/5. F5/8, 9, 10, 11.
	Within Groups	452.47	389	1.16			
	Total	483.51	399				
I23	Between Groups	173.26	10	17.32	5.58	.00	F1/4, 8, 9, 10.
	Within Groups	1206.73	389	3.10			F2/3, 4, 7,

Total	1379.99	399		8, 9, 10, 11. F3/4, 9. F4/6, 7, 9. F5/8, 9, 10. F6/9, 10. F7/9.

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

As shown in Table 4.22 above, the mean value of the device used for writing by students with respect to diverse faculties for Item 21 and Item 23 are different. Additionally, as presented in Table 4.23, Item 21 which states that when writing students usually write on paper (Class notebooks, daily planners etc.); Comm. Media (F5) have statistical significant difference with Dentistry (F8), Medicine (F9), Health Sciences (F10), and Architecture (F11) at [F(31.03, 452.47) =2.66, p= 0.00].

Item 23 which states that when writing, students usually write with mobile phone; Bus & Economics (F2) have statistical significant difference with Art & Sciences (F3), Tourism (F4), Computing & Tech (F7), Dentistry (F8), Medicine (F9), Health Sciences (F10), and Architecture (F11) at [F(173.26, 1206.73) =5.58, p= 0.00].

These significant differences can be attached to writing materials of the students in different faculties, while for example students from Architecture will make use of paper for drawing and sketching, other faculties like Business and Economics, Arts and Sciences will use paper for writing of classroom notes, while Computing and Tech will make use of computer for coding. It shows that there is significant

difference in undergraduate students' perspective regarding the device used for writing according to students' registered Faculty.

Table 4.24: Undergraduate students' Perspective regarding the medium most used by students according to students' registered Faculty.

Faculty	**Item 28**	
	Mean	**Std. Dev.**
F1	2.29	1.63
F2	2.86	1.75
F3	2.30	1.39
F4	2.60	1.28
F5	2.07	1.15
F6	2.07	1.47
F7	2.75	1.61
F8	2.00	1.41
F9	2.09	0.70
F10	2.00	0.92
F11	2.91	1.51
Total	2.43	1.47

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

Table 4.25: Undergraduate students' Perspective regarding the medium most used by students according to students' registered Faculty.

		Sum of Squares	**Df**	**Mean Square**	**F**	**P**	**Significant Difference**
I27	Between Groups	46.75	10	4.675	2.20	.01	F1/2. F2/5, 6, 9, 10.
	Within Groups	823.28	389	2.116			

Total	870.04	399	F6/7, 11. F7/10. F5/8, 9, 10. F11/5, 9, 10.

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

As shown in Table 4.24 above, the mean value of the medium mostly used by students with respect to diverse faculties for Item 27 is different. Additionally, as presented in Table 4.25, Item 27 which states that monographic pages are the least used by students; Bus & Economics (F2) have statistical significant difference with Comm. Media (F5) Pharmacy (F6), Medicine (F9), and Health Sciences (F10) at [F(46.75, 823.28) =2.20, p= 0.01].

This result suggests that there is significant difference in undergraduate students' perspective medium mostly used by students with respect to diverse faculties.

Table 4.26: Undergraduate students' Perspective regarding the Web 2.0 applications used when writing according to students' registered Faculty.

Faculty	**Item 28**		**Item 31**		**Item 32**	
	Mean	**Std. Dev.**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
F1	2.43	1.74	3.31	1.57	4.50	1.61
F2	3.43	1.94	3.07	1.90	4.62	1.70
F3	2.60	1.89	2.82	1.79	4.97	1.56
F4	3.09	1.42	3.17	1.74	5.41	0.83
F5	2.42	1.66	3.28	1.58	4.53	1.40
F6	2.79	1.57	3.79	1.81	4.62	1.41
F7	3.13	2.03	3.13	1.61	5.31	1.33
F8	2.62	1.40	2.50	1.06	4.75	1.38

F9	2.04	0.74	1.95	0.92	5.28	0.64
F10	2.06	0.88	2.89	1.31	5.17	0.71
F11	2.52	1.55	3.47	1.62	4.94	1.19
Total	2.75	1.68	3.15	1.69	4.87	1.39

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

Table 4.27: Undergraduate students' Perspective regarding the Web 2.0 applications used when writing according to students' registered Faculty.

		Sum of Squares	**Df**	**Mean Square**	**F**	**P**	**Significant Difference**
I28	Between Groups	74.84	10	7.48	2.73	.00	F1/2. F2/3, 5, 6, 9, 10, 11. F4/9, 10. F7/9, 10.
	Within Groups	1064.15	389	2.73			
	Total	1139.00	399				
I31	Between Groups	67.37	10	6.73	2.42	.00	F6/2, 3, 8, 9, 10. F9/1, 2, 3, 4, 5, 6, 7, 10, 11.
	Within Groups	1081.01	389	2.77			
	Total	1148.39	399				
I32	Between Groups	41.716	10	4.17	2.22	.01	F1/4, 7, 9, 10. F2/4, 7. F4/5, 6.
	Within Groups	730.03	389	1.87			
	Total	771.75	399				

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

As shown in Table 4.26 above, the mean value of the Web 2.0 applications used when writing with respect to diverse faculties for Item 28 and Item 31 are different.

Additionally, as presented in Table 4.27, Item 28 which states that when writing text, students make use of Blogs; Bus & Economics have statistical significant difference with Art & Sciences (F3), Comm. Media (F5) Pharmacy (F6), Medicine (F9), Health Sciences (F10), and Architecture at [F(74.84, 1064.15) =2.736, p= 0.00].

Item 31 which states that when writing text, students make use of web pages of participative writing; Medicine (F9) have statistical significant difference with Engineering (F1), Bus & Economics (F2), Art & Sciences (F3), Tourism (F4), Comm. Media (F5) Pharmacy (F6), Computing & Tech (F7), Health Sciences (F10), and Architecture (F11) at [F(67.37, 108.01) =2.42, p= 0.00].

Item 32 which states that when writing text, students make use of YouTube channels; Engineering (F1) have statistical significant difference with Tourism (F4), Computing & Tech (F7), and Medicine (F9) at [F(41.71, 730.03) =2.22, p= 0.00].

These differences can be attached to writing materials of the students in different faculties, while for example students from Computing and Tech. will make use of YouTube channels where lectures on coding are delivered by IT professionals, other faculty like Communication and Media will prefer Blogs where news are given on a constant and accurate basis. This result shows that there is significant difference in undergraduate students' perspective on Web 2.0 applications used when writing with respect to diverse faculties.

Table 4.28: Undergraduate students' Perspective regarding the text written in digital media according to students' registered Faculty.

Faculty	Item 35		Item 36	
	Mean	Std. Dev.	Mean	Std. Dev.
F1	3.16	1.75	3.04	1.89
F2	3.62	1.91	3.05	1.83
F3	3.47	1.72	2.57	1.61
F4	2.51	1.28	2.31	1.19
F5	3.21	1.91	2.82	1.84
F6	3.54	1.87	2.49	1.60
F7	3.86	1.74	3.41	1.93
F8	2.75	1.58	2.37	1.40
F9	2.14	1.10	1.61	0.74
F10	2.55	1.37	2.17	0.84
F11	3.30	1.80	3.80	1.73
Total	3.21	1.76	2.78	1.69

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

Table 4.29: Undergraduate students' Perspective regarding the text written in digital media according to students' registered Faculty.

		Sum of Squares	Df	Mean Square	F	P	Significant Difference
I35	Between Groups	91.34	10	9.13	3.10	.00	F1/9. F2/4, 9, 10. F3/4, 9, 10. F4/6, 7, 11. F5/9. F6/9, 10. F7/9, 10. F11/9.
	Within Groups	1144.73	389	2.94			
	Total	1236.07	399				

I36	Between Groups	113.31	10	11.33	4.28	.00	F1/4, 9, 10, 11.
	Within Groups	1029.32	389	2.64			F9/2, 3, 5, 6, 7, 11.
	Total	1142.64	399				

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

As shown in Table 4.28 above, the mean value of the text written using digital media with respect to diverse faculties for Item 35 and Item 36 are different. Additionally, as presented in Table 4.29, Item 35 which states that when writing in digital media, text written using digital media include animation; Art & Sciences (F3) have statistical significant difference with Tourism (F4), Medicine (F9), and Health Sciences (F10) at [F(91.343, 1144.735) =3.104, p= 0.001].

Item 36 which states that when writing in digital media, text written using digital media include computer simulation; Engineering (F1) have statistical significant difference with Tourism (F4), Medicine (F9), Health Sciences (F10), and Architecture (F11) at [F(91.343, 1144.735) =3.104, p= 0.001].

These differences can be attached to individual digital competence of the students in different faculties, while for example students from Communication and Media are experts in animation design, they are liable to make use animation in their writing compared to other faculties like Business and Economics. This result shows that there is significant difference in undergraduate students' perspective on text written using digital media with respect to diverse faculties.

Table 4.30: Undergraduate students' Perspective regarding the normal place for book buying according to students' registered Faculty.

Faculty	Item 37		Item 38		Item 39		Item 40	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
F1	4.68	1.74	3.43	2.05	3.60	1.84	1.91	1.23
F2	5.13	1.41	3.38	2.08	3.37	1.93	2.55	1.80
F3	5.00	1.48	3.32	2.06	3.67	1.73	2.35	1.77
F4	4.87	1.22	2.87	1.51	4.17	1.32	1.97	0.93
F5	4.71	1.60	3.46	1.97	3.60	1.44	3.50	1.55
F6	5.18	1.25	3.56	1.84	3.58	1.88	1.86	1.12
F7	5.06	1.48	3.00	1.92	3.86	1.74	2.72	1.86
F8	5.87	0.35	3.62	1.30	4.00	1.30	1.75	0.88
F9	5.38	0.66	3.42	1.36	2.76	1.30	1.66	1.01
F10	5.41	0.68	3.82	0.92	3.27	1.50	1.96	0.82
F11	3.66	1.69	4.80	1.47	4.50	1.44	1.97	1.05
Total	4.93	1.45	3.50	1.85	3.66	1.71	2.22	1.45

***ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

Table 4.31: Undergraduate students' Perspective regarding the normal place for book buying according to students' registered Faculty.

		Sum of Squares	Df	Mean Square	F	P	Significant Difference
I37	Between Groups	86.99	10	8.69	4.47	.00	F1/2, 8, 10, 11.
	Within Groups	757.04	389	1.94			F9/1, 2, 3, 4, 5, 6, 7, 8, 10.
	Total	844.04	399				
I38	Between Groups	90.33	10	9.03	2.75	.00	F11/1, 2, 3, 4, 5, 6, 7, 8, 9, 10
	Within Groups	1277.66	389	3.28			
	Total	1367.99	399				

I39	Between Groups	65.44	10	6.54	2.30	.01	F9/3, 4, 7. F11/1, 2, 3, 5, 6, 7, 9, 10
	Within Groups	1103.32	389	2.83			
	Total	1168.77	399				
I40	Between Groups	87.01	10	8.70	4.47	.00	F1/2, 5, 7. F2/4,5, 6, 9, 11. F5/1, 2, 3, 6, 7, 8, 9, 10.
	Within Groups	757.28	389	1.94			
	Total	844.29	399				

ENGINEERING (F1), BUS & ECONOMICS (F2), ART & SCIENCES (F3), TOURISM (F4), COMM.MEDIA (F5) PHARMACY (F6), COMPUTING AND TECH (F7), DENTISTRY (F8), MEDICINE (F9), HEALTH SCIENCES (F10), ARCHITECTURE (F11)

As shown in Table 4.30 above, the mean value of the normal place for buying books with respect to diverse faculties for Item 37, Item 38, Item 39 and Item 40 are different, these differences can be attached to individual digital competence of the students in different faculties and their area of specialization, for example students from Communication and Media are connected with news stand, they tend to buy books at news stand compared to other faculties. Additionally, as presented in Table 4.31, Item 37 which states that the normal place for book buying is bookshops; Medicine (F9) have statistical significant difference with Engineering (F1), Bus & Economics (F2), Art & Sciences (F3), Tourism (F4), Comm. Media (F5), Pharmacy (F6), Computing & Tech (F7), Dentistry (F8), and Health Sciences (F10) at [F(86.99, 757.04) =4.47, p= 0.00].

Item 38 which states that the normal place for book buying is on the internet; Architecture (F11) have statistical significant difference with Engineering (F1), Bus

& Economics (F2), Art & Sciences (F3), Tourism (F4), Comm. Media (F5), Pharmacy (F6), Computing & Tech (F7), Dentistry (F8), Medicine (F9), and Health Sciences (F10) at [F(86.99, 757.04) =4.47, p= 0.00].

Item 40 which states that the normal place for book buying is at a news stand; Comm. Media (F5) have statistical significant difference with Engineering (F1), Bus & Economics (F2), Art & Sciences (F3), Pharmacy (F6), Computing & Tech (F7), Dentistry (F8), Medicine (F9), and Health Sciences (F10) at [F(87.01, 757.28) =4.47, p= 0.00].

However, all the significant differences found above substantiated Demirbilek (2014) study that investigated the digital propensities of university students with sample of 409 undergraduates' from several faculties/colleges in state university situated at southwestern Turkey.

Chapter 5

CONCLUSION

Purpose of this study is to investigate undergraduate students' perspective on the use digital competence for academic literacy, with respect to students' gender and students' registered faculty by using the "Digital Competence and Academic Literacy" tool that examines the summary of the digital competence and academic literacy of students.

The results from this study shows students' use of Web 2.0 applications for academic purposes; even though there are genders and faculty significant differences that can be associated with socio-economic status of the students. The results of the significance difference suggest that there exist extreme significant differences in undergraduate perspective on the use of digital competence for academic literacy according to students' gender and registered faculty with respect to online reading strategies, resources consulted for better understanding, e-devices used in the library, the mode of information presentation, place of buying books and the use of notebooks for writing by the students, and navigation strategies.

Due to the inequality in the socio-economic status of students, it is recommendable for Universities not to relent on digital study supports for students in order to increase digital equality for the students irrespective of students' gender and registered faculties.

This research described undergraduate students' preference for digital content that capture information in a stimulating and fast way via multimodal forms like photographs and images, videos, and animation that when reading and writing for academic reasons.

According to the results of this study, undergraduate students' make use of YouTube channels over Blogs when writing for academic purposes, but blogging has been recognized as a means to promote students' initiation into academic research. Therefore, it is recommended that educators and undergraduate lecturers in particular should work on exploiting this great opportunity.

However, as students maintain their preference for digital content in multimodal forms, care need to be taken not to get distracted from the causal effects of reading and writing on digital platforms for academic purposes.

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APPENDICES

Appendix A: Consent Form

Dear Students,

The Purpose of this study is to investigate undergraduate students' perspective on the use of digital competence for academic literacy.

The following are the objectives of this research:

1. What are the Eastern Mediterranean University undergraduate students' perspectives on the use of digital competence for academic literacy?
2. What are the Eastern Mediterranean University undergraduate students 'perspectives on the use of digital competence for academic literacy according to students' genders?
3. What are the Eastern Mediterranean University undergraduate students 'perspectives on the use of digital competence for academic literacy according to students' registered faculty?

The questionnaire consists of three parts. It will take approximately ten minutes of your time to answer all the questions. After reading the questions carefully, please tick the most correct box. Allocating some of your time to fill out this survey sincerely and correctly is crucial for the study. You are free to withdraw from the study at any time. I assure you that all the data provided will be kept confidential and will only be used for research purposes. For more information, you can contact either me or my thesis supervisor without hesitation. If you agree to participate in the questionnaire, please fill in and sign the form below.

Thank you for your participation and cooperation.

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I have read and understand this form. I have asked my questions and received necessary answers. I accept to participate in this study voluntarily.

Name:_____ Signature: _____

Surname :_____ Date: _____

Appendix B: Questionnaire

The purpose of this questionnaire is to gather information about the different literary forms that university students currently practice in the framework of digital competence and academic literacy. With the data provided by your answers we would like to describe a new profile of the university student whose culture has developed new ways of reading and writing in the 21st century. The answers to this survey will be private and their purpose will be solely and exclusively investigative. Therefore, your answers will never be part of the qualification of any subject in which you are enrolled.

Demographic Information

1. Faculty: _____
2. What is your gender? ☐ Male
   ☐ Female

Please answer the following questions about your reading habits and academic literacy. To do this, use the valuation scale that accompanies each item, which is graduated from the value '1' (Never) to the value '6' (Always); therefore, if you have not done an activity simply select the one value.

Digital Competence (Information Literacy)

	Never 1	2	3	4	5	6 Always
When reading on the net, you tend to interpret the text better when there is…..						
Only a written text						
The written text is accompanied by image or an audio-visual element						
A link to other pages						
When beginning to read a text, do you read the document…?						
Completely						
A fragment or part of the text						
With a quick or superficial overview						
I look for information that interests me						

in a heading or section						
When reading a book, magazine, etc., if you have difficulties with understanding or want to broaden your knowledge, you would use….?						
A dictionary						
Internet						
An encyclopedia						
Maps, Plans, etc.						
Drawings or explanatory diagrams						
Digital format or electronic resources used in the library						
Collections of electronic books: E-books						
Devices (Kindle, iPad, Reader etc)						
Digital Magazines						
Google books						
Databases: Dialnet, ERIC, Francis etc.						
University library catalogue						
Have you consulted any magazines and/or articles in the library?						
Printed on paper						
In digital format						

Digital Competence (ICT Literacy)

	Never 1	2	3	4	5	6 Always
Device usually used for writing						
Paper (Classroom notebooks, daily planner, etc)						
Computer						
Mobile phone						
Tablet						
Medium most used by student						
Social networks (Facebook, Twitter						

etc)						
Personal Blog (diaries, reviews, commentaries, etc.)						
Monographic pages (fanfiction, role, forums, chats, etc.)						
When writing text, you make use of…..?						
Blogs						
Faction						
Flicker stories						
Web pages of participative writing (p.e. National Novel Writing Month)						
Youtube Channels						
When writing in digital media, Text written using digital media generally include…						
Photographs or images						
Videos						
Animation						
Computer simulation						
Normal place for book buying						
Bookshops						
The internet						
In a stationary store						
At a news stand						

Thanks!