Literacy in Lebanon in the New Millennium

Dr. Anny Joukoulian

    Faculty of Language

    The Lebanese University

    annyjoukoulian@gmail.com

Abstract

With the advent of the 21st century, the world has witnessed a multitude of changes in almost every sector and field, and the educational sector has not been an exception. The notion of literacy today is totally different from what it meant few decades ago. Almost a century ago, anyone who could read and write was considered literate and indispensable. Today, in addition to reading and writing, developing and mastering skills such as critical thinking and implementing technology are considered fundamental and vital. This paper gives an overview of literacy in the 21st century in general and in Lebanon in particular. It defines terms such as literacy, traditional literacy and functional literacy. Data will be collected from current university students and university graduates of different generations using a self-designed survey questionnaire. In addition to that, few students, graduates from different generations and specialists in the field of education will be interviewed. The purpose of the data collection is to show whether high school graduates and university graduates are equipped with the necessary skills for university and the job market respectively. Most importantly, it aims at showing whether literacy in Lebanon is traditional or functional and whether knowing English as a second language has any impact or not. More importantly, it puts forward a list of essential skills that could help high school students and university graduates survive the demands of today's revolutionized world.

Key words: *Twenty-first century literacy skills, traditional literacy, functional literacy, English as a second language, literacy in Lebanon*

1. Introduction

The Universal Declaration of Human Rights, article 26 states that "Everyone has the right to education" and the United Nations Educational, Scientific, and Cultural Organization believes that "Literacy is heart of basic education" (UNESCO, 2010). As of 1966 and according to UNESCO, literacy has been considered as an essential and fundamental human right (Keefe & Copeland, 2011). With the arrival of the 21st century, the world has witnessed a multitude of changes in almost every sector and field, and the educational sector has not been an exception. The notion of literacy today is totally different from what it meant few decades ago. Almost a century ago, anyone who could read and write was considered literate and indispensible. Today, in addition to reading and writing, developing and mastering skills such as critical thinking and implementing technology are considered fundamental and vital. To embrace the new millennium and to be ready for the challenges it brings students need a whole new set of skills and contemporary tools (Wheatley et al, 2010).

2. Statement of the Problem

With the advent of the new millennium and based on its requirements, the concept of literacy has changed globally. It includes more 'functionality" that goes beyond the simple ability to read and write. This research study sheds light on the status of literacy in the 21st century in general and in Lebanon in particular.

The purpose of this study is to shed light on the status of literacy in Lebanon and to check whether it is traditional, functional or a mixture of both. It also aims to find out whether high school graduates and university graduates are equipped with the necessary skills for university and the job market respectively and whether knowing English as a second language has any impact or not.

The following research questions are targeted:

RQ1. Are high school graduates equipped with the necessary 21st century skills required for their higher education?

RQ2. Are university graduates equipped with the necessary 21st century skills required for the job market?

RQ3. Does learning English as a second language contribute in practicing the 21st century literacy skills?

RQ4. Is literacy in Lebanon traditional or functional?

3. Literature Review

3.1. Definitions of Literacy

A concept as complex and intricate as literacy has been defined in many different ways. Before the 21st century, scholars, philosophers, psychologists, and educators believed that to be literate is to be capable of reading and writing in addition to some arithmetic (Fowler, 2017; Jones-Kavalier & Flannegan, 2006; Olaniyi, 2015; Sherrif, 2018; Vlieghe, 2015). Nevertheless, with the advent of the new millennium, the definition of literacy has gone through radical changes. The scope of literacy has become so wider and so broader that it includes more than just reading, writing, and arithmetic (Jones-Kavalier & Flannegan, 2006; Sharp, 2012). According to the Education Development Center (2012), literacy is considered powerful when skills such as reading and writing are used for the purpose of "shaping the course" of people's lives (as cited in Olaniyi, 2015). Jones-Kavalier and Flannigan (2006) believe that literacy to the current generation known as the "e-generation" means to possess the competencies to navigate the digital world. As per the National Council of Teachers of English (2013), to be literate means to have the ability to use technology, to build "cross-cultural connections", to analyze and synthesize information, to create and critique texts, and to be ethically responsible (as cited in Shelow, 2016). In fact, a broader perspective has been adopted by Fowler (2017) according to whom "The inclusive definition of literacy is the ability to interpret and evaluate the world around us. This ability is composed of three dimensions; cognitive, social, and critical skills" (p. 1). Ledward and Hirata (2011 as cited in Fandino, 2013) suggest that literacy in the 21st century is all about technology, critical thinking, problem solving, communication, and team work. Figure 1 by Beach (2013) presents a summary of literacy before and after the 21st century. It is worth noting that the millennium does not only define literacy differently but also perceives it differently. Currently, there are different types of literacy such as information literacy, financial literacy, computer literacy, visual literacy, scientific literacy (Jones-Kavalier & Flannegan, 2006; Olaniyi, 2015), social literacy (Fowler, 2017), media literacy (Olaniyi, 2015; Thoman & Jolls, 2005), and digital literacy (Jones-Kavalier & Flannegan, 2006).
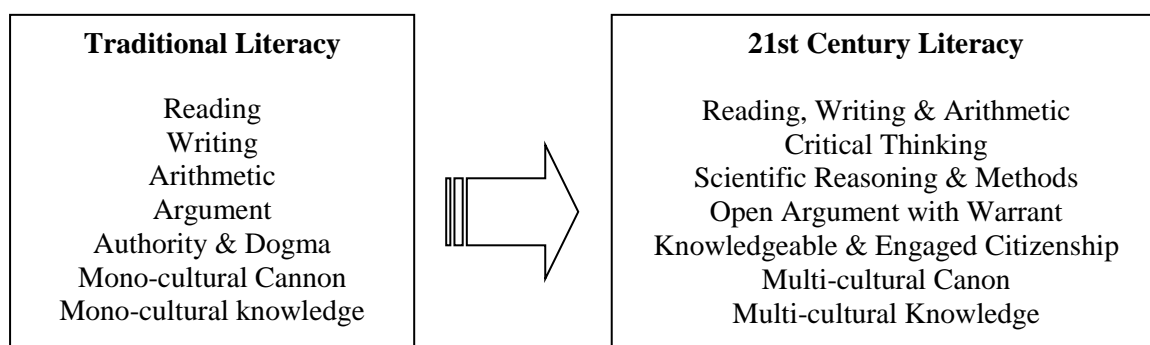
Traditional Literacy	21st Century Literacy
Reading Writing Arithmetic Argument Authority & Dogma Mono-cultural Cannon Mono-cultural knowledge	Reading, Writing & Arithmetic Critical Thinking Scientific Reasoning & Methods Open Argument with Warrant Knowledgeable & Engaged Citizenship Multi-cultural Canon Multi-cultural Knowledge

Figure 1: *Traditional Literacy vs. 21st Century Literacy*

3.2. Characteristics of the 21st Century Literacy

A broader perspective has been adopted by Wheatley et al (2010) who suggest that literacy of the new millennium is interdisciplinary and encompasses a holistic approach. It has been suggested by Lemke (2003 as cited in Fandino, 2013) that the structure of the 21st century literacy is presented through a four dimension framework which includes digital-age literacy, inventive thinking, effective communication and high productivity. Table 1 includes the four dimensions and the characteristics of each.

Stauffer (2020) argues that 21st century literacy skills belong to three major categories: learning skills such as critical thinking, creativity, collaboration, and communication, literacy skills such as information, media, and technology, and life skills such flexibility, leadership, initiative, productivity, and social skills.

Digital Age Literacy Basic, Scientific and Technological Literacy Visual and Information Literacy Cultural Literacy and Global Awareness	**Inventive Thinking** Adaptability Managing Complexity and Self-Direction Curiosity, Creativity and Risk-Taking Higher-Order Thinking and Sound Reasoning
Effective Communication Teaming, Collaboration and Interpersonal Skills Person, Social and Civic Responsibility Interactive Communication	**High Productivity** Prioritizing, Planning and Managing for Results Effective Use of Real-World Tools Ability to Produce Relevant, High-Quality Products

Table 1: *Dimensions of 21st Century Learning*

3.3. Classical Literacy versus Functional Literacy

Many recent studies have differentiated between basic and functional literacy. According to Olaniyi (2015) and Olaniran (2020), basic literacy refers to skills that are acquired while

functional literacy refers to the usage and application of those acquired skills in real life situations mainly in daily life and work. It is further argued that basic literacy is primarily related to the reading and writing learning processes of individuals who have never been to school (Barton, 2006 as cited in Olaniyi, 2015). In contrast, functional literacy is about managing daily life tasks, whether professional or unprofessional, that require beyond basic reading and writing skills. Hence, while basic literacy simply emphasizes acquisition of skills, functional literacy highlights "the ability to analyse things, understand general ideas or terms, use symbols in complex ways, apply theories, and perform other necessary life skills—including the ability to engage in the social and economic life of the community" (Canadian Council of Learning Report, 2007, p. 86 as cited in Olaniyi, 2015, p. 23).

Looney (2005) highlights that literacy in the 21st century is all about implementation and practice. For him, teachers should go beyond teaching; they should ask their students to implement their knowledge of technology in creative projects. For example, it is not enough that students have mobiles. They should be using those mobiles to create something new such as a movie.

4. Methodology

The type of research employed in this study is both quantitative and qualitative providing the researcher with both numerical and verbal data respectively. For the purpose of numerical data collection, a self designed questionnaire was used. It included 41 questions related to different age, gender, and educational background. The questionnaire was created using Google Forms which is an online survey tool utilized for data collection. The link of the questionnaire was shared with the population via WhatsApp. As for verbal data collection, four interviews have been conducted using a list of 7 questions. The data collected from Google forms has been stored in spreadsheet. Microsoft excel has been used for the purpose of data analysis and creating charts.

For this paper, data was collected from two different groups of subjects: those who filled out the survey questionnaire and those who were interviewed.

   a. The population of the survey questionnaire consisted of 112 subjects from different regions of Lebanon belonging to different age, gender and educational background. Among the 112, 80.4% were females (n=90) and 19.6% were males (n=22). They belonged to six age groups the majority being between 19 and 21 years old (36.6%)

followed by the age groups 31 and older (23.2%), 22-24 (17.9%), 16-18 (13.4%), 25-27 (6.3%), and 26-30 (2.7%).

b. The interviewees of the study were the following:

i. Professor Hayat Al- Khatib: Head of the English Department and Professor of Linguistics at the Arab Open University, Lebanon Branch. The interview was conducted on Monday, May 4th, 2020 and the answers were submitted via email.

ii. Dr. Rula Yazigy: Professor of Applied Linguistics and previous Chairperson of the English Department at the Lebanese University, Branch II, Fanar. The interview was conducted on Friday, May 1st, 2020 and the answers were submitted via email.

iii. Ms. Aline Bazerly: Counsellor and Learning Diversity Coordinator at Wellspring Learning Community. The interview was conducted on Friday, May 1st, 2020 and the answers were submitted via WhatsApp.

iv. Ms. Dolly Yammine: Head of Cargo for Lebanon and Outstations at Middle East Airlines (MEA). The interview was conducted on Wednesday, May 6th, 2020 and the answers were submitted via WhatsApp.

5. Results

5.1. Results of the Questionnaire

Based on the results of the survey questionnaire, the majority of the subjects (59.8%) have reported being university students, 33% university graduates, and only 7.1% holding a high school diploma. Among those 112 subjects, 80 have graduated from a private school and 32 from a public school. It has also been reported that after graduating from high school, 38 of them studied at a private university in Lebanon, 33 at a public university that is the Lebanese University and 28 worked and studied at the same time. In addition, four of them have reported studying abroad and nine started working without attending university. Regarding when they have graduated from high school, 90 of the 112 subjects have graduated within the last 20 years. In addition, 76 of the subjects have reported still being university students (67.9%), ten of them graduated between 2016 and 2020, eight between 2011 and 2015, four between 2006 and 2010 and nine between 2001 and 2005.

The participants were asked about literacy during their high school years. Among the 112 subjects who answered the survey questionnaire, 40.2% reported that instruction in class was given in English as opposed to 59.8% who responded saying other language. In addition, 38.4% of the respondents reported that they have studied English as a first foreign language in high school as opposed to 61.6% who studied it as a second foreign language. Moreover,

78.6% admitted participating in the class discussions as opposed to 21.4% who reported that the teacher was the only one to speak in class.

The subjects were also asked whether they had any computers in class during their high school years. The majority of the subjects (75.9%) reported that they did not have any computers in class. It is worth noting that 33.3% reported that they brought their own device to class whenever needed and 48.7% had a single computer in class that was for the teacher. Regarding the question that checked whether they had interactive white boards in class or no, only 42.9% reported not having any interactive whiteboards in class during the high school years followed by 29.5% who reported having it in some classes only. In addition, 53.6% of the subjects reported that internet was available for the administration and teachers as opposed to 34.8% who reported that only the members of the administration had access to internet.

The responses of the survey reveal the type of the tasks and activities students did in class during their high school years, the type of assignments they received and other activities they were requested to do. It is worth noting that they were given the chance to choose more than one option. Tables 2, 3, and 4 give a clear overview of the type of tasks, activities and assignments that students did in both high school and university. In addition, the subjects were asked whether they were involved in any community service or had any extracurricular activities class during their high school years. According to the responses received, 52.7% reported doing community service and 67.9% had extracurricular activities where the majority was interested in football and basketball with 33% and 43% respectively.

What students had, used or did	In high school	At university
Internet for research and educational games	29	56
Online quizzes/tests/exams	14	53
Paper based quizzes/tests/exams	82	87
Graphic calculators	15	15
Digital learning games in class	8	13
Interactive white board	33	36
Laptops/Tablets/Mobiles for learning	16	62
Online textbooks/soft copy of the books	8	60
Paper books only	83	29
Paper books and pdf books	24	63
Videos/movies to explain the lesson	54	64
Powerpoint presentations	68	91
Prezi presentations	7	8
None of the above	1	1

Table 2: Technology Used and Tasks Done

Assignments included	In high school	At university
Worksheets	100	84
Videos created by the students	17	33
Powerpoint presentations prepared by the students	67	94
Prezi presentations prepared by the students	6	11

Table 3: Types of Assignments

We were asked to	In high school	At university
go to the library and do research related to the lesson	51	66
explain a lesson in class using traditional methods	66	44
explain a lesson in class using technology	32	66
do group work	91	82
do problem solving activities	64	51
type our assignments using Microsoft word	37	83
use Microsoft excel	23	45
create charts/graphs/tables	34	52
None of the above	7	6

Table 4: Tasks and Activities Students Were Asked to Do

The survey questionnaire checked the literacy skills of the subjects during their university years as well. Among those who attended university, 97 reported that instruction in class was given in English and 15 responded saying other language. In addition, 77.7% of the respondents reported that at the university they studied English as a first foreign language as opposed to 22.3% who studied it as a second foreign language. Moreover, 83.9% reported that they participated in the discussion in class as opposed to 16.1% who reported that the instructor was the only one to speak in class.

The survey also demonstrated the availability of computers, interactive white boards and internet at the university. Thirty subjects reported that they brought their own device to class whenever needed and 28 had a single computer in class that was for the instructor. Regarding interactive white boards, 40.2% admitted having it in class during the university years. In addition, 54.5% of the subjects reported that internet was available for the administration, teachers and students as opposed to 22.3% who reported that only the members of the administration had access to internet. As for community service and extracurricular activities in university, 71.4% and 64.3% answered no respectively.

The subjects were asked about the difficulties they faced when they moved from high school to university and from university to work. Table 5 gives a clear overview of that. As for what helped them most at the university, 72.3% of them admitted that knowing English and having computer skills combined is what made everything easier for them.

In fact, the subjects were also asked some general questions through which they expressed their point of view through their own experience. When they were asked what literacy meant to them, the majority (56.3%) responded as "the ability to read, write, do arithmetic, use the computer, think critically, solve problems, and have communication skills" followed by 30.4% for whom literacy means the ability to read and write only. Another important issue that was raised in the questionnaire was the status of literacy in Lebanon. Among the 112 subjects, 71 reported that literacy in Lebanon is a mixture of both traditional and functional, 25 responded as more traditional than functional, 11 replied traditional, and only 5 functional. As for knowing English, 94.6% of the subjects have reported that knowing English is considered a necessary 21st century skill.

When I started university, I had problem/difficulty in	
Writing a proper email	29
Using the laptop/computer	9
Do research using the search engines available	23
Prepare a powerpoint presentation	9
Use the interactive white board	5
Type my report using Microsoft word	6
Using the necessary options available on Microsoft word	9
Enter data using excel sheet	13
Create charts/graphs/tables	12
Using technology to present my project	4
Prepare a prezi presentation	3
Prepare a video for my project	17
Type my assignment using Microsoft word	6
None of the above	45

Table 5: Difficulties students had at the University

5.2. Results of the Interviews

Concerning the first question whether technology is used at the institutions they work for, the four interviewees informed that technology is used in different forms and for different purposes. For example, MEA uses the latest technology; at Wellspring technology is used in the form of interactive whiteboards, powerpoint presentations, training kindergarten students, training dyslexic students to type, etc.

In response to the second question related to hiring new stuff members, Dr. Yazigy informed that fresh graduates are usually hired for the fresh ideas they have and their motivation to prove themselves. Professor Khatib stated that only short listed candidates would be hired based on their exceptional CV and the outcomes of the interview. In addition, according to

Ms. Yammine, at MEA both fresh graduates and experienced candidates are hired depending on the position; however, some positions are filled by experienced candidates only. For Ms. Bazerly having a special education background is preferred.

Regarding the question that checks the skills needed for being hired, all agreed that a degree in the field and English are essential. While Dr. Yazigy shared that candidates need to have communicative skills and proficiency in English, Professor Khatib informed that candidates should have competency skills in the required job, interpersonal skills and technical skills. Ms. Yammine informed that different departments at the company require different skills. For example, for candidates applying for a position in the customer care service department, communication skills and fluency in English are necessary.

As for the question related to the skills that candidates are tested for, Professor Khatib, Ms. Yammine, and Ms. Bazerly shared that candidates are tested for critical thinking, communication skills, and team work. They are tested for creativity only if it is required for the job. For example, Ms. Bazerly informed that during an interview, candidates are asked to study a case and required to provide verbal and written answers.

In response to the question whether schools and universities prepare students for the demanding and competitive universities and job market of the millennium respectively, Dr. Yazigy reported that both schools and universities in Lebanon are constantly updating the curricula including skills that graduates of high schools and higher education need. Dr. Khatib and Ms. Bazerly believe that, in fact, it depends on both the institution and the students' efforts. However, when it comes to teaching critical thinking, analyzing, asking questions and criticizing, Ms. Bazerly shared that schools that follow the American IB program do a better work than schools that follow the French curriculum which is mainly content based. As for Ms. Yammine, she believes that the "bridge between theory and practice in Lebanon is still weak" and this is mainly obvious when students go to MEA for familiarization.

Interviewees were also asked whether knowing English as a second language has any impact during the process of university admission or simply to be hired. They all shared that knowing English is fundamental since it helps students and job candidates to express themselves better during the interview process. Dr. Yazigy believes that in Lebanon although English is the "world language", French is still a requirement.

In response to the last question, whether literacy in Lebanon is traditional or functional, the participants had different responses. Professor Khatib believes that, currently, literacy in Lebanon is somewhere in between. Dr. Yazigy states that both schools and universities are

constantly updating their curricula and courses by focusing on the 21st century skills as well. While Ms. Bazerly believes that literacy in Lebanon is more traditional than functional, Ms. Yammine believes that it is still traditional especially in terms of skills related to technology.

6. Interpretation of Findings

The findings of the survey conducted reveal that technology based assessment, tasks and activities such as using internet for research and educational games, online assessments, digital learning in class, online books, videos, and powerpoint presentations are used more frequently at the university level than in high school. Table 2 on page 9 gives a clear overview of that. The results also demonstrate that university students have more technology based assignments such as creating videos, using Microsoft excel and word for analyzing and typing their assignments (tables 3 and 4). Nevertheless, the findings of the survey confirm that students in high school did more group work and problem solving activities.

According to the results of the questionnaire, 52.7% of the high school students perform community service as opposed to 28.6% of those in the university. In addition, 67.9% of the high school students are engaged in extracurricular activities as opposed to 35.7% in the university (table 6).

	High school		University	
	Yes	No	Yes	No
Community Service	52.7%	47.3%	28.6%	71.4%
Extracurricular Activities	67.9%	32.1%	35.7%	64.3%

Table 6: Community Service and Extracurricular Activities

The findings of the study also highlight that universities in Lebanon use English for instruction (86.6%) more than high schools do (40.2%). In addition to that, 77.7% of the students have informed learning English as a first foreign language as opposed to 38.4% in the high schools. It is worth noting that compared to high school students, students at the university participate more in class discussion and have more computers, interactive white boards, and internet access in class (Table 7).

	High school	University
Instruction in English	40.2%	86.6%

Studied English as a first Language	38.4%	77.7%
Student participation during class time (student centred)	78.6%	83.9%
Computer in class	24.1%	55.4%
Interactive White Board	27.2%	59.8%
Internet for Administration, teachers and students	11.6%	54.5%

Table 7: English and Technology in High School versus at the University

Moreover, the results of the survey carried out reveal that 26.25% of the students in private schools have computers in class as opposed to 18.75% in public schools. They are also involved in community service and extracurricular activities more than students in public schools-55% and 71.25% as opposed to 46.875% and 59.375% respectively (table 8).

		Private School	Public School
In High School	Computer in class	21=**26.25%**	6=**18.75%**
	Interactive White Board in class	21=**26.25%**	10=**31.25%**
	Community Service	44=**55%**	15=**46.875%**
	Extracurricular Activities	57=**71.25%**	19=**59.375%**

Table 8: Technology, Community Service and Extracurricular Activities in Private School versus Public School

Finally, the findings of the study give an idea about the difficulties and problems high school and university graduates face at the university and at work respectively. High school graduates upon entering university go through hardships more than fresh university graduates when they start work. Some of those problems include writing a proper email, using the laptop or the computer, using search engines for research, preparing powerpoint, prezi and video presentations for their projects, using Microsoft word and excel, and using a website to enter data. Table 9 gives a clear overview.

I had problem/difficulty in	When I started university	When I started work
Writing a proper email	29	17

Communication skills with other colleagues	N/A	12
Working in group	N/A	7
Working under pressure	N/A	18
Using the laptop/computer	9	1
Do research using the search engines available	23	2
Prepare a powerpoint presentation	9	7
Use the interactive white board	5	9
Type my report using Microsoft word	6	2
Using the necessary options available on Microsoft word	9	2
Enter data using excel sheet	13	6
Create charts/graphs/tables	12	7
Using technology to present my project	4	7
Prepare a prezi presentation	3	4
Prepare a video for my project	17	5
Type my assignment using Microsoft word	6	29
None of the above	45	N/A

Table 9: Difficulties Students Had at the University and at Work

7. **Discussion of Findings**

When comparing the results of the current study to those of older studies, it must be pointed out that there is no previous research available that discusses the status of literacy in Lebanon in the new millennium. It confirms positive association with previous research that emphasize the necessity of English as a global language and the skills related to it.

The results and data analysis of the survey conducted show that literacy in Lebanon is blended; the educational system adopts a mixture of different types of literacy. The percentages revealed show that it is mainly literacy in English especially in the higher education. The results demonstrate that 86.6% of the participants of the survey have received instruction at the university in English and 77.7% of them have informed that they have studied English as a first Language; numbers that are considered relatively high compared to that in the high school level. This finding is in accordance with findings reported by Bacha and Bahous (2011) who have stated that with the introduction of English to the world as an essential tool for communication, learning English has been introduced to the new Lebanese National Curriculum in 1994 as a foreign language. According to them, the curriculum and

through learning English, students are expected to practice communication, context variation, cultural awareness, interactive learning, integration of skills, thinking skills, analysis, and synthesis; in one word, skills that are considered integral to the 21st century literacy skills.

Another key finding is that literacy in Lebanon is a mixture of both functional and classical and probably more functional than classical. It is worth discussing that high school students and graduates of private schools show more functionality than those of the public schools. The percentages of students showing interpersonal and leadership competencies such as community service and extracurricular activities are higher than those in the public school (Table 7). It must be pointed out that Stauffer (2020) and Soland et al (2013) have emphasised the role of leadership, initiative, productivity, tolerance, empathy towards others, and social skills in their research considering them fundamental skills in the 21st century literacy. In addition, the results of the survey study also show that literacy in Lebanon is more functional at the university level where the students' knowledge of technology is used for creating videos, powerpoint presentations and other relevant projects.

Last but not least, when comparing the results of the current study to those of older studies, it must be pointed out that some of the findings are unique to this study. The results of this paper indicate that university graduates are equipped with some of the necessary tools that enable them to survive the requirements of the demanding job market.

8. Limitations

It is necessary to note that this study has had few limitations. First of all, the interviews have been conducted online-via email and WhatsApp due to the current circumstances and the confinement procedures. Had the interviews been conducted face-to-face, the participants could have elaborated more. In addition, the questionnaire survey excluded the area or region participants received their high school education. That could have given a clearer idea of the status of literacy in different areas and regions in Lebanon.

9. Conclusion

At the end, nothing remains the same and the new millennium is the perfect example. Life has changed enormously in the past twenty years and the educational sector has not been exempted from any. It is not what you know that matters; it is how you use your knowledge for being productive. Students are tested based on their performance and not their competence alone. Preparing students for the future is the ultimate purpose of education and failing to incorporate new literacy skills into any school system means failing their students (Shelow, 2016) and the secret of a more successful learning environment lies in bringing different skills together (Looney, 2005). After all, "literacy is considered a basic human right

as it has been linked to higher levels of dignity, self-esteem, economic well-being and improvement (Olaniran, 2013; World Atlas, 2017 as cited in Olaniran, 2020, p. 1).

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