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Abstract

Information literacy is an essential proficiency for success in academic studies, yet many first-year students find it hard to use information sources efficiently and to develop academic information literacy. This study reports findings from first-year students' self-estimation of their information skills according to two information literacy models (Shapiro & Hughes, 1996; Ng, 2012) and presents interesting insights on the differences between the multicultural and multilingual student groups in the study's population. The researchers found that Hebrew-native speaking students preferred digital sources while Hebrew as second language (Arabic-speaking) students preferred printed sources, and both groups ranked their technological and information literacy skills as above average. The study supports previous research on Arabic-speaking students' need for more mediation in the dimensions of information literacy examined compared to Hebrew-speaking students, despite no significant difference in access to the internet at home and self-assessment of their general computing skills.

Keywords: information literacy; higher education; multicultural students; Israel; multilingual students.

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Introduction

Information literacy (IL) is a major factor in academic success and in lifelong learning skills and is one of the major skills required by higher education students. The concept of IL refers to the skills and proficiency of understanding when there is a need for information, and the ability to identify, locate, and evaluate additional information required to meet this need. Many studies show that first-year students experience difficulties in using information at their disposal and developing academic information literacy for their studies (Barefoot, 2006; Duke & Asher, 2012; Gross & Latham, 2012; Price, Becker, Clark, & Collins, 2011; Soria, Fransen, & Nackerud, 2014). Despite the ethos about being "digital natives" (Prensky, 2001), millennials find it hard to critically choose information sources (Peet, 2014). Developing information literacy skills at the beginning of their academic studies is a major and critical factor for their academic success. In Israel, the Ministry of Education acknowledges the importance of the subject and embeds special IL programs in elementary schools (Vidislavsky, Peled, & Pevsner, 2010).

Are digital natives information literate? Do they know how to search, locate, retrieve, and use academic information after graduating high school? Do colleges and universities need to teach information literacy? Many studies have dealt with the issue of trying to define what student information skills are necessary to succeed in academic tasks (e.g., Bennett, Maton, & Kervin, 2008; Lwehabura, 2018; Ng, 2012). This study offers a unique perspective on information literacy, using Shapiro and Hughes' (1996) seven elements model combined with Ng's (2012) three dimensions model. The purpose of this study is to investigate how first-year students from different native language groups (Hebrew and Arabic) perceive their information literacy skills and what the differences are between the two groups.

Literature Review

Teaching IL in Higher Education

Most higher education institutions in Israel offer information literacy (IL) stand-alone courses despite the contrary approaches suggested by other researchers in the field of information literacy (e.g., Ford, Izumi, Lottes, & Richardson, 2015; Torras & Saetre, 2016).

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Course titles, such as Bibliographical Guidance or Academic Literacy, may be different across institutions, but the content is similar. These courses introduce students to technology and online information resources available from their library digital catalog and have the purpose of enabling research with reliable and scholarly information sources and increasing awareness of library services (Chen & Chengalur-Smith, 2015; Nicholas et al., 2017; Alexander et al., 2016).

There is growing concern among higher education professionals regarding how digital native students' information search and retrieval skills are influenced by new technologies (Greenberg & Bar-Ilan, 2014; Ng, 2012). These students are turning to internet sources to complete coursework and conduct research (Jones, Johnson-Yale, Millermaier, & Pérez, 2008). Easy access to digital information raises concerns related to whether students put forth the effort expected from them and if they know how to find scholarly resources that measure up to academic assignments (Denison & Montgomery, 2012). Teaching digital and information literacy allows students to engage with traditional subject areas in new ways, and is about addressing the changing nature of knowledge, acknowledging that students need different kinds of skills, knowledge, and understanding to develop their academic expertise (Hague & Payton, 2011). Adapting digital literacy curricula means giving students the opportunity to use a wide range of technologies collaboratively, creatively, and critically. Even though digital native students are confident in using a wide range of technologies and often turn to the internet for information (Hague & Payton, 2011), several important additional qualifications are needed.

Digital Gap

Digital skills and knowledge are not evenly spread among all young people. There is unequal access to the opportunities, experiences, skills, and knowledge that will prepare students for full participation in the world of tomorrow (Kalantzis, Cope, Chan, & Dalley-Trim, 2016). Digital gap (sometimes called the digital divide) is a common term in the literature for these differences, and it refers to the information access inequality contributed to by race, age, educational level, nationality, and economic factors (DiMaggio, Hargittai, Celeste, & Shafer. 2004; Hilbert, 2014). In their study, Hatlevik, Guðmundsdóttir, and Loi (2015) also found that cultural capital and family background affect digital competencies.

Multicultural Students in Israel

Multicultural is defined as "relating to or containing several cultural or ethnic groups within a society" ("Multicultural," 2018). The researchers of the current study refer to students coming from diverse cultures and linguistic backgrounds as multicultural students.

In Israel there are several major ethnic groups, including Israeli Jews (whose native language is Hebrew), Israeli Arabs (whose native language is Arabic), and immigrants from all over the world (Greenberg & Bar-Ilan, 2014). The two main cultural groups are Israeli Jews, comprising 75% of the total population, and Israeli Arabs, who comprise 21%, according to the Israel Central Bureau of Statistics (2016). Arab students comprise 14.3% of the students in Israel; however, in the north of the country (where the college is located), there is a majority of Arabs (53%).

Israeli students come from a multicultural society, and as such, they have special characteristics. Cultural diversity is characterized by language, religion, family structure, and ideological differences (Gonen, Sharon, Lev-Ari, Strauss & Segev, 2016). Most Israeli Arab students are Muslim and their first language is Arabic. The elementary and secondary schools in Israel are publicly funded, but the Jewish majority and Arab minority have almost entirely separate education systems. In the Arab sector, instruction is in Arabic with Hebrew taught as the second language, whereas Hebrew is the language of instruction in the Jewish system. The only integration occurs in higher education institutions (Chai & Shoham, 2012; Okun & Friedlander, 2005). This radical transition from the Arab-speaking environment to the Hebrew-speaking environment of a college or university leads to alienation and difficulty integrating into the academic system.

Studies have concluded that cultural diversity affects usage of information, influencing how people accept, react to, and use information (Chai, 2008; Eshet-Alkalai & Geri, 2007; Walsh, Durrant, & Simpson, 2015; Yoo & Huang, 2011). Arab students find it more difficult to use keywords and search strategies in English because it is their third language (Zafrir, 2011). These second language students need to take an extra step to linguistically decode academic information (Greenberg & Bar-Ilan, 2014). Additionally, Arab students tend to use academic library services more than Jewish and Russian immigrant students and prefer to search and retrieve their information sources through the library rather than the internet (Greenberg & Bar-Ilan, 2014). Cultural, linguistic, and technology adoption factors are some of the reasons for encountering difficulties in gaining the skills needed for narrowing the digital literacy gap (Merdler & Peled, 2016).

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Theoretical Models of Information Literacy

Ng (2012) suggested a three-dimensional model of digital literacy: technical, cognitive, and social-emotional. Shapiro and Hughes (1996) sketched out an outline for a curriculum for students in higher education based on seven elements: tool literacy, resource literacy, publishing literacy, emerging technology literacy, research literacy, social-structural literacy, and critical literacy. The current study combines the seven elements from Shapiro and Hughes with the three dimensions of Ng, resulting in the following information literacy dimensions:

- ***The technical dimension*** is associated with tool, emerging technology, and publishing literacy. It broadly means possessing the technical and operational skills to use information communications technologies for learning. It includes the ability to use and adapt new technologies to format and publish research and ideas electronically, and the competency and the self-efficacy to solve basic technical problems.
- ***The cognitive dimension*** is associated with resource, research, and critical literacy. It refers to the ability to think critically when searching, evaluating, and creating digital information. It also relates to the ability to use and analyze textual, visual, or audio-based information, understanding the form, format, location, and access methods of information resources.
- ***The social-emotional dimension*** is associated with social-structural literacy and involves knowing how information is socially situated and produced and being able to use the digital environment for learning and communication, both responsibly and morally. It includes the understanding that each source has its social background and behaving in ethical and moral ways (e.g., avoiding impersonation, shaming, and plagiarism).

Research Questions

The purpose of the research is to examine the students' self-perception regarding their information literacy skills and to identify environmental barriers that cause a digital gap. The research questions are:

1. *How do first-year students perceive and evaluate their information literacy skills?*
    a) How do they assess their skills in using information technology?

b) How do they perceive their abilities in the academic information search process?
c) Do students critically check the information sources they retrieve for their academic use?
d) Are students aware of ethical and social perspectives of information uses?

2. Is there a digital gap among students from the different native language groups (Hebrew and Arabic) in the first year?

Question 1 examined the three dimensions of the information literacy model, with sub-question (a) referring to the technical dimension, sub-questions (b) and (c) exploring the cognitive dimension, and sub-question (d) investigating the social-emotional dimension. For each of the sub-questions, the researchers studied the differences between the two native language groups (Hebrew and Arabic) to examine the impact of the multicultural environment on the components of information literacy. Question 2 aimed to determine if there is a digital gap by two means: access to digital equipment (especially to computers and the internet) and previous knowledge and skills in using common software and hardware. The researchers hypothesized that there would be a digital divide between Hebrew-speaking students and Arabic-speaking students, and it might be the cause of differences between the two language groups regarding their information literacy skills.

Methodology

The study was conducted at an academic college in Israel's rural north in an online course on information and databases, which is meant to give students some basic information literacy proficiencies. All first-year students studying in the multidisciplinary program must take this course. The study's questionnaire was handed out during the initial class meeting to 125 students.

The questionnaire was designed according to the theoretical models of Ng (2012) and Shapiro and Hughes (1996) and consisted of three parts (see Figure 1):

1. Demographic details: age, gender, and native language.
2. Digital accessibility: personal computer and internet access at home and degree of familiarity with their common uses.
3. Information literacy dimensions: twenty-nine statements ranked on a Likert-based scale (1= strongly disagree, 5= strongly agree).

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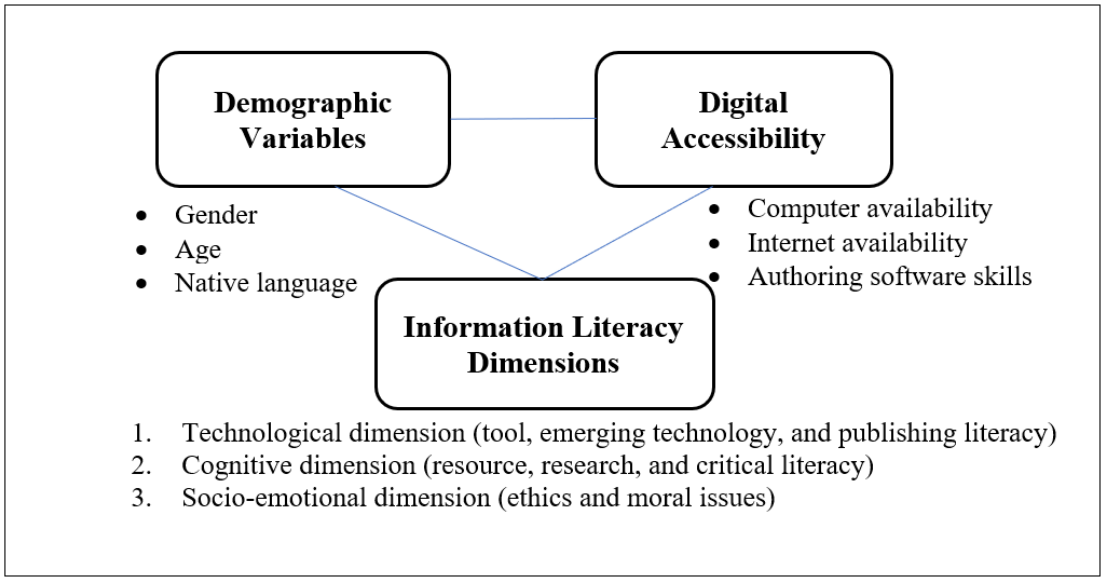
Figure 1: Research Design According to the Theoretical Models



The questionnaire was designed and validated using the content validation approach (Hinkin & Tracey, 1999) and a factor analysis test. The researchers pre-tested the questionnaire, and in light of the findings, some of the statements were corrected. Cronbach's alpha was calculated, and 0.712 reliability was found (α=.712). The questionnaire was given in Hebrew, which is the spoken and written language used at the college.

The method of self-reporting was chosen because the purpose of the study was to find out the knowledge, awareness, and beliefs of the students themselves about finding and using information. This method was chosen because it "stress[es] the centrality of meaning in attempting to make sense of how people in particular settings come to account for and understand their situations" (Bogdan and Biklen, 1998, cited in Lee, 2008, pp. 57).

Results

Participants

Of the 125 questionnaires handed out, 95 were completed and analyzed. Most of the survey participants were women (81%) and 19% were men (n=95, f=77, m=18). The main native language among the students was Arabic (73%). Native Hebrew speakers comprised 27% of all students in the class. Most students were 23 years of age and under (64.1%), 17.4% were aged 24-27, 7.6% were 28-33, and 10.9% were over 33 (see Table 1).

A comparison between age group and native language indicates that in the first age group (ages under 23), 88.1% of the students were native Arabic speakers (AR) and only 11.9% were native Hebrew speakers (HE). In the oldest age group (ages over 33), most of the students (80%) were native Hebrew speakers (see Table 1).

Table 1: Distribution of Students' Ages and Native Language within Age Group

Age group	Up to 23	24-27	28-33	Over 33	Total
All students	64%	17.4%	7.6%	10.9%	100%
Hebrew (HE)	11.9%	43.8%	57.1%	80%	27.3%
Arabic (AR)	88.1%	56.2%	42.9%	20%	72.7%

To examine whether there are differences between the age groups in relation to information literacy, a t-test was conducted for these variables in all categories. No statistically significant differences were found between age groups. On the other hand, differences were found between the language groups for Hebrew speakers (HE) and Arabic speakers (AR), for whom Hebrew is their second language.

Research Question 1(a): How do first-year students assess their skills in using information technology tools?

The questionnaire included five statements regarding information technology use (see Table 2). In general, the students declared confidence in their proficiency regarding the use of digital information tools (M=2.98). Comparing the HE to the AR group by an independent sample t-test shows that HE group ranked their confidence in their proficiency higher for all the statements. A significant difference was found in statement 3 (the fear of technological failure), which was ranked higher by the AR group (t=2.13, p<0.05, M=2.37, SD=0.15), even though both groups ranked it lower than average (p=.036, AR=2.37, HE=1.78).

Five statements in the questionnaire asked participants about their preferences for the form of academic materials: digital or print (see Table 3). The AR group indicated a preference for print materials to a greater extent (M=3.9) than the HE group (M=3.39), who indicated a preference for internet source materials. The findings show that both groups preferred print materials to digital for their academic assignments (print: M=2.97; digital: M=2.79). The highest rating was given to

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statement 1 "I prefer to read print items rather than online items" (*M*=3.64). The opposite statement "I prefer to use digital bibliographic items for my studies" was also rated above average (*M*=3.25). The lowest rating was given to the statement "I never use the library. I find all the information I need on the internet" (*M*=1.95). For this statement, a t-test was conducted, and a significant difference was found (*p*=.037) between the HE and AR populations.

Table 2: Perceived Technology Proficiency (Likert Scale; 1= Strongly Disagree, 5= Strongly Agree)

Statement	Lang.	*M*	*SD*
I trust my information search proficiency on the internet.	HE	3.96	.172
	AR	3.62	.131
When there is a problem with my computer, I know how to solve it.	HE	3.22	.259
	AR	2.97	.145
I am afraid of using the computer. I try not to ruin anything.	HE	1.78*	.208
	AR	2.37*	.146
I adopt new technologies easily.	HE	3.70	.247
	AR	3.40	.150
I tend to use familiar technologies rather than learning new ones.	HE	2.57	.242
	AR	2.19	.142
Overall mean		2.98	

*p<.05; Statements 3 and 5 were reverse recoded before average calculations.

Table 3: Preferences for Consuming Academic Materials: Print or Digital

Statement	HE	AR	Overall
1. I prefer to read print items rather than online items.	3.39	3.90	3.64
2. I read bibliography items found only on the library shelves.	2.09	2.49	2.29
Average preference for print reading	2.74	3.90	2.97
3. Professors should use more digital resources in their course bibliographies.	3.22	3.15	3.18
4. I prefer to use digital bibliographic items for my studies.	3.39	3.1	3.25
5. I never use the library; I find all the information I need on the internet.	2.23	1.67	1.95*
Average preference for digital reading	2.95	2.64	2.79

*p<.05; Statements 1 and 2 were reverse recoded before average calculations.

Research Question 1(b): How do first-year students perceive their abilities in the academic information search process?

The findings indicate an average evaluation for all statements (*M*=3.04) by all the students (see Table 4). The AR group tended to use library discovery tools more than the HE group. There was a significant difference (p=.056) between HE and AR groups for the statement "When I look for information for my studies I use the library discovery tool."

Table 4: Perception of Search Skills

Statement	Lang.	M	SD
1. To search for information, I enter one search word in Google.	HE	2.83	.249
	AR	2.67	.154
2. When I look for information for an academic assignment, I try to use different subject terms.	HE	3.61	.224
	AR	3.34	.127
3. When I look for information for an academic assignment, I use Wikipedia.	HE	2.96	.247
	AR	3.29	.131
4. When I look for information, I enter the title of the bibliographic item.	HE	3.00	.274
	AR	2.91	.154
5. I am familiar with the search options in the college library web site.	HE	3.00	.255
	AR	3.21	.148
6. When I look for information for my studies, I use the library discovery tool.	HE	3.00*	.255
	AR	3.51*	.127
Overall mean		3.04	

*p<.05

Research Question 1(c): Do students critically check the information sources they retrieve for their academic use?

The findings in Table 5 show that students rated their information assessment skills slightly above average on a Likert scale of 1 to 5 (*M*=3.15). On average for all statements in this category, the researchers did not find a significant difference between the two language groups (AR= 3.2, HE=3.1). Statement 3 on information currency and statement 4 on author expertise were ranked higher than the other statements for both language groups (HE=3.68, AR= 3.66; HE=3.59, AR=3.43). The level of trust regarding information recommended by friends (statement 2) was ranked as the lowest (AR=2.85, HE=2.41). Evaluation of the objectivity of information sources (statement 5) was ranked lower by HE students compared to AR students (AR=3.25, HE=2.77).

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Table 5: Critical Approach to Information

Statement	Lang.	*M*	*SD*
1. I trust and use information I find on the internet for my academic assignments.	HE	3.05	.167
	AR	3.10	.129
2. I trust and use information sources my friends recommend for my academic assignments.	HE	2.41	.215
	AR	2.85	.135
3. Before I use an information source for my academic assignments, I check when the article was written to know if it is up-to-date.	HE	3.68	.274
	AR	3.66	.146
4. Before I use an information source for my academic assignments, I check the author's name and expertise.	HE	3.59	.260
	AR	3.43	.154
5. Before I use an information source for my academic assignments, I check whether the author has a promotional or ideological interest.	HE	2.77	.227
	AR	3.25	.146
Overall mean		3.15	

Research Question 1(d): Are students aware of the ethical and social perspectives of information uses?

In this category, students ranked statements about the use of information from Wikipedia and social networks and the use of ready-made assignments (see Table 6). The average score for all the statements in this category was low (*M*=2.8) except for statement 2 (help from friends), which ranked above average (*M*=3.51). The average of statement 4, which deals with the ethical issues of copying, was the lowest in both groups, but there was a significant difference between the AR and HE groups (AR= 2.57, HE=1.41, p<.001). Despite the significance difference of this statement between the two groups, it is possible that the wording in the sentence was not clear to AR students.

Research Question 2: Is there a digital gap among students from the different native language groups (Hebrew and Arabic) in the first year?

Digital gap was defined for this research as the availability of a personal computer and internet access and students' familiarity and skill when using common software (e.g., Microsoft Office). The students specified whether they had a computer at home and if it was private or shared with other members of the family (Table 7). The findings show that 71.6% of the students had their own laptop or a computer at home and 74.7% had access to the internet at home. No significant differences were found between the two language groups.

Table 6: Ethical and Social Perspective

Statement	Lang.	*M*	*SD*
1. I trust and use information I find in Wikipedia for my academic assignments.	HE	2.95	.232
	AR	3.10	.122
2. To perform my assignments, I get help from my friends.	HE	3.41	.194
	AR	3.67	.135
3. To search for information for my studies, I consult my Facebook or WhatsApp friends.	HE	2.57	.234
	AR	2.62	.153
4. The internet and my mobile phone allow me to find and submit ready-made assignments.	HE	1.41***	.142
	AR	2.57***	.151
Average		2.82	

***p<.001

Table 7: Computers and Internet Availability

Computer availability	**M=3.7 SD=0.649**
I have my own laptop.	71.6%
There is a computer at home for the whole family. I do not have a computer of my own.	15.8%
I do not have a computer at home. I use the college computers.	3.2%
Other	1.1%
Internet availability	**M=3.1 SD=0.474**
At home, I only have cellular internet (no Wi-Fi).	12.6%
At home, I have a high-speed internet connection or wireless cable.	74.7%
Internet is available to me only in the college or in places that have public internet.	4.2%
Other	1.1%

For the second part of the digital gap questionnaire, students were asked to rank their level of general computer skills (Table 8). For both study populations, a medium-to-high familiarity with common and popular information tools was found (*M*=3.79, *SD*=1.15). Use of social media was reported at a higher rate than the other parameters (*M*=4.35), and the

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use of the library catalog was rated as the lowest (*M*=3.3). For all these parameters, no significant differences were found between the two language populations.

Table 8: Familiarity and Skill with Using Common Software

Statement	*M*	*SD*
Familiarity with word processing software (e.g., Microsoft Word)	3.91	1.17
Familiarity with presentation software (e.g., Microsoft PowerPoint)	3.91	1.07
Familiarity with spreadsheet software (e.g., Microsoft Excel)	3.49	1.23
Familiarity with the college library catalog	3.30	1.27
Familiarity with social networks (e.g., Facebook or WhatsApp)	4.35	1.02
Total	**3.79**	**1.15**

Since the data did not indicate any digital gap, no further analysis was made to check the link between digital gap and information literacy.

Discussion

The findings in this study resemble other studies in the literature. Students in both populations (Hebrew and Arabic native language) declared confidence in their proficiency in using digital information and thought they were above average when performing information searches. Radford and Connaway (2007) claimed that it is typical of the millennial generation to feel they are internet-savvy and skillful users of online interactions. Prensky (2001) wrote that digital natives were born into the digital culture, and that they think and talk in digital. Additionally, the Pew Internet and American Life Project Report on the public library habits of Americans under the age of thirty found that the majority of young people (98%) believe that the internet makes it much easier to find information (Peet, 2014). Walsh, Durrant, and Simpson (2015) found that new and sophisticated technologies are often not as accessible to multicultural students from minority groups. The current study confirms this finding, with the HE group students reporting higher proficiency in their ability to solve computer problems than the AR group, as reflected in their responses to the "*fear of technological failure*" statement.

In the digital use preference statements, the study found some differences between the HE group, who prefer to read from a digital source, and the AR group, who prefer to read print

sources. The preference of print over electronic reading is found in a number of relevant studies. In their research on text representation formats and their effect on Israeli students, Eshet-Alkalai and Geri (2007) theorized that people place different values on information, and it affects their format preference for reading. Mizrachi (2015) suggested that disorientation and knowledge construction are more likely to appear when reading in electronic format compared to print format. In the context of the multilingual population, the authors of the current study propose that the preference stems from the degree of linguistic literacy and the reader's confidence in reading comprehension. While HE students read Hebrew as their first and natural language (and most of the reading items in the first year are in Hebrew), Arab students do not trust their Hebrew reading comprehension, and prefer to print the reading texts and make notes on them.

First-year students in the current study perceived their abilities of academic information search process as average. In the statements regarding the use of a library discovery tool to find information, the findings indicated a significant difference between HE and AR group students. The Arabic language group tended to use library discovery tools more than the Hebrew language group. This finding reinforces Greenberg and Bar-Ilan's (2014) study on information behavior of Israeli students, which found that the Israeli Arab students tend to use library resources, including the personal help of a librarian.

No significant difference between the language groups was found regarding the critical consumption of information sources for academic use. Both groups highly ranked their evaluation proficiency. This finding matches the literature on the subject. In their studies on student's self-perception of information literacy skills, Gross and Latham (2012) and Price, Becker, Clark, and Collins (2011) found that students tend to believe they have above average IL skills, even though many students actually lack proficiency in evaluating information sources. In this study, the researchers used students' self-evaluations and perceptions. Future studies could compare students' assignment results to their self-evaluations.

Are students aware of the ethical and social perspectives of information use? The present study found that both language groups got help from their friends to perform academic assignments and trust and use Wikipedia as an academic resource, but they did not see social networks as a source of academic support. In the statement regarding the ethical issue of submitting copied works, the study shows a significant difference between the AR and HE populations. The HE group students did not declare any use of ready-made assignments,

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while some of the AR group students declared using them. The researchers tried to look at this finding in light of the information behavior of students who study in their third language (usually, the native language for students in the AR group is Arabic, while the spoken language in college is Hebrew and the academic language is English). Bhatti (2010), Greenberg and Bar Ilan (2014), and Yi (2007) found that these populations tend to choose similar subjects for their assignments due to their difficulties in searching and retrieving information sources. This finding can also be explained by the different cultural backgrounds and awareness of academic culture and conventions of the AR student population. In their study, Yoo and Huang (2011) found cultural diversity when sourcing information from the internet. They claimed that cultural background influences the way people behave in the digital environment. In a study of plagiarism among international students at American universities, Amsberry (2010) suggested that in addition to cultural and language obstacles facing the international students in their academic life, their learning practices and use of information sources do not correlate to the requirements of higher education. They may face technological problems together with a lack of academic training.

The findings from the second research question are interesting. The authors hypothesized that a digital gap between the students exists and influences IL. However, both populations ranked the statements similarly, and the data did not indicate any digital gap. The parameters that students ranked relatively high were the availability of personal devices and internet access and the use and awareness of common software and social media tools. The parameter ranked lowest was library use. These findings align with the literature on the subject. In their book on college libraries and student culture, Duke and Asher (2011) noted that libraries can offer crucial assistance to undergraduate students doing academic research. However, instead of asking for librarians' help, students use other information sources (e.g., search engines) and seek help from their professors and colleagues.

Study Limitations

This study is a pilot using self-reported data, and as such it does not necessarily reflect the information literacy skills and behaviors of the participants. Due to the high percentage of Arabic native language students in the study population, an Arabic translation of the questionnaire would have helped to confirm some of the findings.

Conclusions

This study was conducted on a multilingual and multicultural population of students in their first year at an Israeli college. The study evaluates a unique perspective of their information literacy self-perception based on Shapiro and Hughes's (1996) seven elements model combined with Ng's (2012) three dimensions model. The students rated their technological and skills as above average as well as their ability to search and retrieve academic information. A significant difference was found in the preference of HE group students for online resources over AR group students, who preferred print materials. The study also found a tendency of AR students to use library services and to seek librarians' help for their academic assignments. This finding supports previous studies on the subject (Greenberg & Bar-Ilan, 2014; Merdler & Peled, 2016).

The differences in the ethical approach to the use of ready-made academic assignments between HE students and AR students can be explained by the different cultural backgrounds and awareness of academic culture and conventions. These findings, which emerged from self-reports, are validated by the findings of Peled and Khaldi (2013), who studied the reason why the vast majority of students appearing before the ethical conduct boards of four rural colleges in Israel during the 2002-2007 academic years on charges of academic dishonesty were Israeli minorities, while they only comprised 35% of the academic population of those colleges (Peled & Khaldi, 2013). They suggested that the reason is the academic culture that the students are exposed to when in high school. As part of a follow-up study, the authors will attempt to clarify whether the wording of the statement was interpreted differently by each group, or if the difference is due to dissimilar approaches to academic culture.

This study helps to refine and refocus how to examine the various aspects of information literacy of Israeli students at the starting point of their studies. Further research needs to be done by conducting a follow-up study analyzing student performance on course assignments. This approach will enable a deeper evaluation of the students' information literacy skills. The study supports previous research on the subject of Arabic-speaking students' need for more mediation in dimensions of information literacy examined. Future research might include a follow-up study based on these findings and aspects of the K-12 education system.

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