Are Canadian professors teaching the skills and knowledge students need to prevent plagiarism?

Martine Peters[*] and Alain Cadieux

* Correspondence: martine.peters@uqo.ca
Université du Québec en Outaouais, 283, boulevard Alexandre-Taché, C.P. 1250, succursale Hull, Gatineau (Québec) J8X 3X7, Canada

Abstract

Max 150 words. If possible, please submit your abstract in both English and French. When writing an assignment, most students start by searching for information online, which they integrate in their writing and conclude by producing a bibliography for the sources used. They use their informational, writing and referencing skills to do this as well as refer to their plagiarism knowledge to make sure their text is exempt from plagiarism. In this paper, we examined which skills and knowledge students feel the need to further develop in university to prevent plagiarism in their assignments. Professors were also questioned as to their perceptions of their students' skills development during their pre-university studies. Questionnaires were administered in six Quebec Universities to students ($n = 1170$) and professors ($n = 279$). Results show that students feel the need for more training while professors expect students to have already mastered the skills and knowledge to prevent plagiarism. Recommendations are made on how to implement better training for students through a program approach.

Lors de la rédaction d'un devoir, la plupart des étudiants universitaires commencent par chercher des informations en ligne, qu'ils intègrent dans leur rédaction et terminent en produisant une bibliographie des sources utilisées. Ils utilisent leurs compétences informationnelles, rédactionnelles, et de référencement documentaire et se réfèrent à leurs connaissances en matière de plagiat pour s'assurer que leur texte en soit exempt. Dans cet article, nous avons examiné les compétences et les connaissances que les étudiants ressentent le besoin de développer davantage à l'université pour prévenir le plagiat dans leurs travaux. Les professeurs ont également été interrogés sur leur perception du développement des compétences de leurs étudiants durant leurs études pré-universitaires. Des questionnaires ont été administrés dans six universités québécoises à des étudiants ($n = 1170$) et à des professeurs ($n = 279$). Les résultats montrent que les étudiants ressentent le besoin d'une formation plus poussée alors que les professeurs s'attendent à ce que les étudiants maîtrisent déjà les compétences et les connaissances nécessaires pour prévenir le plagiat. Des recommandations sont formulées sur la façon de mettre en œuvre une meilleure formation pour les étudiants par le biais d'une approche-programme.

Keywords: Digital scrapbooking strategies, Informational skills, Writing skills, Referencing skills, Plagiarism

Maintext

In the last two decades, university students writing habits have changed drastically with the event of technology and the web (Moore et al., 2016). They have almost stopped researching in university libraries (Biddix et al., 2011; Leeder & Shah, 2016) and have become heavily dependent to the web and Google when it comes to looking for information (Head & Eisenberg, 2010). A favorite action has become copying and pasting (Sutherland-Smith, 2018). Unfortunately, these new habits have resulted in a dramatic increase in plagiarism in universities all over the world (Amiri & Razmjoo, 2016; Janssens & Tummers, 2015).

Researchers have deplored the fact that students do not receive the necessary training to understand and prevent plagiarism (Holt, 2012; McGowan & Lightbody, 2008). Students themselves feel they lack academic literacies and confidence on entering universities (Palmer et al., 2018). However, few researchers have examined with which training or which skills are necessary to write assignments with integrity.

Peters (2015) has proposed a theoretical model which includes informational, writing and referencing skills as well as the digital scrapbooking strategies mobilized by these skills can help prevent plagiarism. According to this researcher, students need to develop these skills and strategies, before and at university, in order to be able to write a coherent text, exempt of plagiarism (Peters et al., 2019). In this paper, we will present this model as well as results from students and professors questionnaires showing how there is a disconnect between the training the students would like to receive and the training they are likely to get.

Conceptual framework

When writing an assignment, most students start by looking for information online (Becker, 2016), then will incorporate this information in their writing "to demonstrate their knowledge" (Cronin, Ryan, & Coughlan, 2008, p. 41) and conclude by producing a bibliography for the sources used (Ramdhani, Ramdhani, & Amin, 2014). Digital scrapbooking is the process used by students to collect, assemble, copy and paste, various pieces of information on the web such as ideas, texts, images, and videos. Students then reformulate and recontextualize the material and weave it together in a new creation in which credit is given to the authors of the original information (Peters & Gervais, 2016). Other authors have referred to this process as patchworking which is identified as a technique used by second language or novice writers who have difficulties in writing a text because of their language limitations (Howard, 1995; Pecorari, 2015). Digital scrapbooking goes well beyond patchwork, it is a process that is constructive and evolving and it is used by many writers, from beginners to experts.

Peters' theoretical model (Fig. 1) shows the interaction between the strategies and the skills. When searching for information, students will identify their topic, search with a variety of tools and look at different sources, sifting through the information. Some students will choose to search for their information at the beginning while others will continue to search while writing. The information needs to be organized, connecting it together with the students' own ideas and opinions. When integrating the information in the text, paraphrases and quotes can be used by the students. Some students will
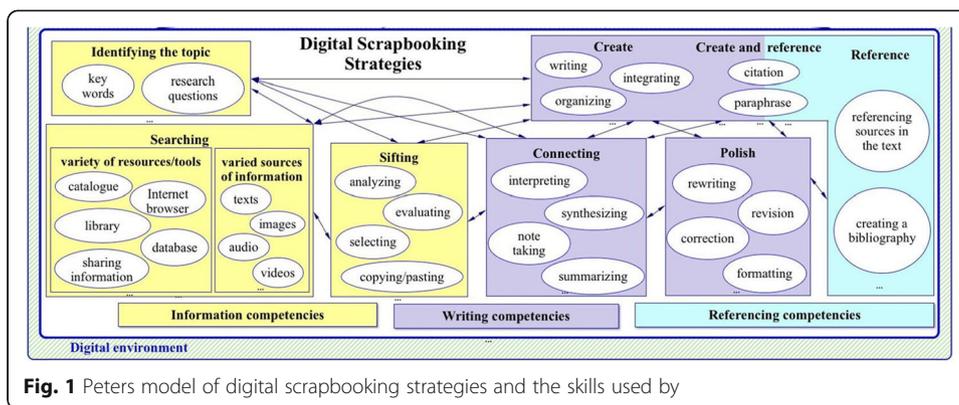
Fig. 1 Peters model of digital scrapbooking strategies and the skills used by

indicate their sources as they write while others will create their bibliography at the end of the process.

Digital scrapbooking strategies are mobilized by three sets of skills: informational, writing and referencing skills. These strategies are actions to support these skills, and can be used at any time during the process of producing the assignment. Students will use assorted skills and strategies, in a different sequence since the process can vary from student to student according to their skill level, the task required and their preferences.

Informational skills defined

Informational skills were first defined as the ability to search efficiently for information (Bawden, 2001). However, computers and in particular the internet changed our relationship to information, making it readily available to those with computer skills (Crockett, Jukes, & Churches, 2011). Informational skills were redefined to include metacognitive (Mackey & Jacobson, 2011) and ethical dimensions (Catts & Lau, 2008).

"Information literacy is the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning" (Association of College and Research Libraries, 2016, p. 3).

And so, informational skills are not limited to the procedural and technical capacity to find information on the web, they also require a series of complementary skills that involve critical thinking, analysis (R. Harris, 2013; Simonnot, 2007), interpretation of information according to one's own needs, with the ultimate goal of making an evaluative decision about the information collected (American Association of School Librarians, 2007), and the skills needed to manage, create, reference and share information (Jeffrey et al., 2011; Nelson, Courier, & Joseph, 2011).

Whose responsibility is it to teach about informational skills?

While Kargbo (2010) has found that students judge their informational skills to be sufficient for their needs, other researchers have found that students need more training to further develop their informational skills in order to properly evaluate and use the information collected (Brand-Gruwel, Kammerer, van Meeuwen, & van Gog, 2017; Rodicio, 2015; Serres, 2012; Steeves, 2014). According to Roy (2009), many students

would like their teachers to train them in order to be better able to assess the relevance, value and credibility of the information they find on the web.

Unfortunately, it seems that teaching about informational skills is not officially on anyone's curriculum at the university level (Dawes, 2017) and that professors have a NIMBY approach "not in my back yard attitude" to teaching these skills (Bury, 2011). Many librarians offer workshops but they are what Artman, Frisicaro-Pawlowski, and Monge (2010, p. 94) call.

"one-shot-instruction to describe brief (50-75 minute) library sessions in which they are asked to teach students all the skills they need to become information literate".

Julien, Gross, and Latham (2018) explain in their research how librarians deplore the fact that there is little buy-in from students and their professors on the importance of informational skills.

Even though there seems to be a lot of research that shows that professors do not systematically teach informational skills but prefer to leave this task to librarians (Goldenstein & Kearley, 2013; Kissel et al., 2016; Saunders, 2012), there are a few studies that show otherwise (Bury, 2011, 2016; DaCosta, 2010; Dubicki, 2013). However, it seems that professors are not primarily concerned by the development of informational skills in their students but are more preoccupied with helping "students understand how researchers think and behave, and to cultivate in the students an attitude to information that impacts their behaviour and their approach to learning the subject content" (Dawes, 2017, p. 558).

Writing skills defined

Hayes and Flower's model (1980) has defined the writing process for many decades as an iterative sequence of high-level processes such as planning, writing and editing (Didier, 2017). Thus, writing skills involve being able to employ these processes but also use them in diverse settings (in class, at home, on the web), with the appropriate genre (lab report, letter, portfolio, etc.) and modalities (script, numerical, prescribed time) (Tassin & Spanghero-Gaillard, 2017). A skilled writer will be able to adjust to all these constraints (Wischgoll, 2016).

At the university level, students must also learn how to write in two different styles: academic writing and disciplinary discourse (Delcambre & Lahanier-Reuter, 2010). New students are therefore confronted with new editorial requirements, while at the same time having to appropriate the bodies of knowledge related to the discipline they have chosen (Foster, 2002). Furthermore, students must meet their professors' requirement for original thinking (Medvedeva & Recuber, 2016) and the obligations to refer to the sources consulted (Hyland, 2015). University students who rely heavily on information found on the web must weave into their own writing with quotes and paraphrases to show how they have acquired new knowledge (Beaudet, 2015). Many students have come to appreciate the extra aid given by online dictionaries (Peters, Weinberg, Sarma, & Frankoff, 2011), spellcheck tools (Conole et al., 2008) and even paraphrasing software (Prentice & Kinden, 2018; Rogerson & McCarthy, 2017).

But whose responsibility is it to teach writing skills at university? Many institutions have implemented writing centers (Isaacs & Knight, 2014) while others have built programs such as "Writing Across the Curriculum" (Defazio, Jones, Tennant, & Hook, 2010) or "Writing in the Disciplines" (Goldschmidt, 2014; Ovadia, 2010), or programs offered to

students who are not native speakers such as English for academic purposes (Wingate & Tribble, 2012) or English for specific purposes (McGrath & Kaufhold, 2016).

These programs are usually the responsibility of learning centers or language instructors who rarely engage with discipline professors (A. Harris, 2016). While these programs are worthwhile, several authors insist on the fact that writing must be embedded across all university curriculum and available to all types of students (Lea, 2004; Murray & Nallaya, 2016; Strangfeld, 2019), because of the complexity of these skills and their importance to academic success (Richards & Pilcher, 2018). But as Wingate and Tribble (2012) explain, in order to integrate the teaching of writing with the teaching of disciplines, the subject professor must be very involved. Unfortunately, as certain authors (Peters, Boies, & Morin, in press; Wingate, 2006) have mentioned, this would involve "the mountainous task of securing the commitment of all academics teaching in degree courses" (Fenton-Smith et al., 2017, p. 465).

Referencing skills defined

Referencing skills refer to knowing when, how and why quoting and paraphrasing an author is necessary (Vardi, 2012). Students who have developed referencing skills show their understanding of the authors they have read (Shi, 2010) while at the same time, giving the information necessary to find these authors (Rekdal, 2014) and showing they respect intellectual property (Duplessis & Ballarini-Santonocito, 2007).

Hutchings (2014) has mentioned that students must be trained to reformulate the ideas they read. However, Vardi (2012) specifies that students' difficulties to paraphrase often come from the lack of knowledge from their field of study and so referencing skills must be closely linked to the development of this knowledge and its specific vocabulary (Hutchings, 2014).

Students would also greatly benefit from referencing software training since research has shown that few of them use this type of software (Milewski & Williamson, 2017; Salem & Fehrmann, 2013). This would prevent them from making mistakes they often commit when referencing their sources according to norms (Mandernach, Zafonte, & Taylor, 2016), or when quoting and paraphrasing (Newton, 2016).

Referencing skills are often viewed as a mechanical process, not very difficult to learn (Buckley, 2015). However, that is far from the truth according to Gravett and Kinchin (2018, p. 1) who insist that "referencing has become a critical but often opaque academic convention, and an area of practice imbued with issues of power, identity and non-belonging". Professors must teach referencing skills by explaining to students the concepts of authorship and ownership as well as effective ways to use information in a text with critical objectivity, to prove the merits of arguments by establishing links between authors (Buckley, 2015; Liardét & Black, 2016).

Methodology

Online questionnaires were administered in six Quebec universities in the fall and winter semester of 2017 (Peters, Vincent, Fontaine, & Fiset-Vincent, 2018). The questionnaire contained 66 questions and took about 15 min to complete. For the purpose of this article, results from only five questions will be presented.

Student participants were asked to rate with two different Likert scales (frequency, agreement), questions about their information, writing, writing skills as well as their

plagiarism knowledge. Faculty had a slightly different version of the questionnaire, asking them questions about which skills and knowledge they taught as well as their perceptions about their students' skills and knowledge. Both questionnaires had a final section with demographic questions.

Student participants
The student participants were from six Quebec universities ($n = 1170$). They were undergraduate students from various disciplines, mostly in Education (25%), Sciences (25%) and Human and social sciences (26%) with 24% of the participants who did not specify. The average age was 26 years old with more than 60% of the participants between the ages of 20 and 29. More women ($n = 732$, 62%) than men ($n = 209$, 18%) answered the questionnaire but a good proportion of participants declined to answer the question ($n = 229$, 20%). The questionnaire did not contain a question about the university level of students. This might have produced a more nuanced analysis and could be included in further research.

Faculty participants
Faculty participants were from the same universities as the students. In total, 279 faculty members answered the questionnaire. Of those, 113 were women (41%), 87 were men (31%), and 79 participants (28%) chose not to answer the gender question. The faculty participants were between the ages of 28 and 71 with the average being 45 years old. The largest group of participants came from the field of Education (25%), followed by Sciences (24%) and Human and social sciences (19%) and 32% of the participants did not specify their field of expertise.

Results
Four questions were asked to students about their need for further training to develop their informational, writing and referencing skills as well as knowledge to prevent plagiarism. The fifth question asked them if they thought they were competent when it came to academic writing. Professors were asked the equivalent five questions, about teaching the skills and the knowledge, and their perceptions of their students' writing competence.

Informational skills development for students and professors' expectations of those skills
A very large percentage of students completely agreed or mostly agreed that they expected to further develop their informational skills at the university. Only 0.9% of the students felt they did not need any training for the informational skills (see Table 1). Only 2.8% of the students disagreed with the statement whereas 94% of the students agreed with it.

As for faculty, 90% of them agree to different degrees that students should have developed their informational skills before they arrive at the university (see Table 2). Only 8,6% of them disagree with the statement. There is a very large discrepancy between what the students expect to learn and what the professors think students have already learned.

Table 1 Students' expectations for the development of their informational skills

I expect to further develop my informational skills (information research, formulating keywords, using search engines, etc.) during my university studies.

	Frequency	Percentage
Completely disagree	11	0,9
Mostly disagree	9	0,8
Slightly disagree	13	1,1
Neutral	37	3,2
Slightly agree	73	6,2
Mostly agree	258	22,1
Completely agree	769	65,7
Total	1170	100,0

Writing skills development for students and professors' expectations of those skills

Students' expectations for the development of their writing skills is higher than for their informational skills. Almost 70% of the students completely agree that they need further training for their writing skills, with a total of 95,6% who agree to different degrees with the statement (see Table 3).

As for the professors' expectations of their students' writing skills, these are even higher than for the informational skills (see Table 4). The percentage of professors (93, 2%) who expect students to have developed their writing skills prior to university is almost the same as the percentage of students (95,6%) who expect to further develop their writing skills during their studies (see Table 3).

Referencing skills development for students and professors' expectations of those skills

As for the other two skills, students expect to develop their referencing skills while completing their studies (see Table 5). The level for all degrees of agreement for the referencing skills (94,7%) is slightly lower than for the writing skills (95,6%) while approximately the same for the informational skills (94%).

The professors' expectations of their students' referencing skills is lower than for their writing skills (93,2%) and informational skills (90%). Only 82,9% of professors agree that students have developed referencing skills prior to university (see Table 6). And so this

Table 2 Professors' expectations of their students' informational skills

As a professor or lecturer, I expect undergraduate students to have sufficiently developed their informational skills (information research, formulating keywords, using search engines, etc.) during their pre-university studies to be functional at the university.

	Frequency	Percentage
Completely disagree	3	1,1
Mostly disagree	11	3,9
Slightly disagree	10	3,6
Neutral	4	1,4
Slightly agree	53	19
Mostly agree	85	30,5
Completely agree	113	40,5
Total	279	100,0

Table 3 Students' expectations for the development of their writing skills

I expect to further develop my writing skills (writing, correcting, editing, quoting and paraphrasing) during my university studies.

	Frequency	Percentage
Completely disagree	7	0,6
Mostly disagree	6	0,5
Slightly disagree	13	1,1
Neutral	25	2,1
Slightly agree	73	6,2
Mostly agree	238	20,3
Completely agree	808	69,1
Total	1170	100,0

is contradictory to students who expect less training for their referencing skills while their professors expect them to need more training for those same skills.

Plagiarism knowledge for students and professors' expectations of this knowledge

The area where students feel the need for less training is to acquire knowledge about plagiarism. While fewer students feel this need, there are still 85,1% who agree, to various degrees, that they need to be trained to avoid plagiarism (see Table 7).

As for professors, most of them expect students to have been trained prior to their university studies on how to prevent plagiarism. The percentage of professors (89,6%) who agree to various degrees is almost the same as the students who wish to be trained on how to avoid plagiarism (see Table 8). This leaves only approximately 10% of professors who feel that students need training in plagiarism prevention.

Students and professors' perception of academic writing

While students feel the need for more training as shown in the previous tables, 47,4% mostly agree that they are comfortable with academic writing while another 28,5% completely agree with the statement (see Table 9). A smaller percentage 11,2% slightly agree while 11% are neutral or disagree with the statement.

Table 4 Professors' expectations of their students' writing skills

As a professor or lecturer, I expect undergraduate students to have sufficiently developed their writing skills (writing, correcting, editing, citing and paraphrasing) during their pre-university studies to be functional at the university.

	Frequency	Percentage
Completely disagree	3	1,1
Mostly disagree	9	3,2
Slightly disagree	5	1,8
Neutral	2	0,7
Slightly agree	36	12,9
Mostly agree	98	35,1
Completely agree	126	45,2
Total	279	100,0

Table 5 Students' expectations for the development of their referencing skills

I expect to further develop my referencing skills (build a bibliography, know the standards of presentation, etc.) during my university studies.

	Frequency	Percentage
Completely disagree	7	0,6
Mostly disagree	9	0,8
Slightly disagree	15	1,3
Neutral	32	2,7
Slightly agree	86	7,4
Mostly agree	264	22,6
Completely agree	757	64,7
Total	1170	100,0

As for faculty, they seem to disagree with the students' perception of their level of comfort as can be seen in Table 10.

While 11% of students divulge the fact that they are not comfortable with academic writing, more than 42% of professors think that students are not comfortable with academic writing. The levels of agreement between students and professors also vary greatly. While 11,2% of students slightly agree, 27,6% of professors share that level of agreement and the discrepancy is even higher for the mostly agree category with 47,4% of students for only 27,6% of professors. Finally, while 28,5% of students completely agree with the statement that they are comfortable with academic writing, only 0,7% of professors completely agree that their students are comfortable with this type of writing.

Discussion

Looking at the student's data, it is possible to confirm that students expect to improve their informational, writing and referencing skills as well as learn more about how to prevent plagiarism in their work. These students have been through 13 years of schooling before their reach university yet they feel that they need more training to be able to fulfill the requirements of university. This confirms what other authors have said about the necessity of further training for informational (Probert, 2009; Shao & Purpur, 2016), writing (Burgess-Proctor, Cassano, Condron, Lyons, & Sanders, 2014; Pelger &

Table 6 Professors' expectations of their students' referencing skills

As a professor or lecturer, I expect undergraduate students to have sufficiently developed their referencing skills (build a bibliography, know the standards of presentation, etc.) during their pre-university studies to be functional at the university.

	Frequency	Percentage
Completely disagree	13	4,7
Mostly disagree	19	6,8
Slightly disagree	11	3,9
Neutral	5	1,8
Slightly agree	54	19,4
Mostly agree	102	36,6
Completely agree	75	26,9
Total	279	100,0

Table 7 Students' expectations for the acquisition of knowledge about plagiarism

I expect to learn more about how to avoid plagiarism during my university studies.

	Frequency	Percentage
Completely disagree	22	1,9
Mostly disagree	27	2,3
Slightly disagree	38	3,2
Neutral	88	7,5
Slightly agree	147	12,6
Mostly agree	255	21,8
Completely agree	593	50,7
Total	1170	100,0

Sigrell, 2016), and referencing skills (Itua, Coffey, Merryweather, Norton, & Foxcroft, 2014; Vardi, 2012) for university students. Many authors have also said that students must acquire more knowledge about plagiarism prevention (Glendinning, 2014; Heckler, Forde, & Bryan, 2013; Power, 2009).

Unfortunately, if we look at the professor's results, their expectations are in contradiction with the students'. There is a great divide between the two: while the professors expect the students to have these skills and knowledge prior to their entry at university, students expect to be trained by their professors. There is a distinct possibility that the students will not get the training they expect especially since certain authors already confirm that the teaching of informational skills (Shepherd & Goggin, 2012), writing skills (Beaudet & Rey, 2012) and referencing skill (Saunders, 2012) are not very present in university programs. Becquet and Étienne (2016) have mentioned that disciplinary skills and knowledge are prioritized in university over skills which are considered cross disciplinary.

When professors are asked about individual skills and knowledge, they expect students to be prepared for university, yet when asked if students are comfortable with academic writing in general, the level of agreement is a lot lower. Professors must then recognize that students need further training in order to be able to write in an academic style as well as to prevent plagiarism. In order to get professors to buy-in to this cross disciplinary training in their disciplinary courses, curriculums need to be restructured to have a program approach (Benharrat, 2018). This will ensure a coherent

Table 8 Professors' expectations of their students' knowledge about plagiarism

As a teacher or lecturer, I expect undergraduate students to have learned how to avoid plagiarism during their pre-university studies.

	Frequency	Percentage
Completely disagree	6	2,2
Mostly disagree	10	3,6
Slightly disagree	10	3,6
Neutral	3	1,1
Slightly agree	27	9,7
Mostly agree	69	24,7
Completely agree	154	55,2
Total	279	100,0

Table 9 Students' level of comfort with academic writing

I am comfortable with academic writing in general.

	Frequency	Percentage
Completely disagree	15	1,3
Mostly disagree	27	2,3
Slightly disagree	42	3,6
Neutral	44	3,8
Slightly agree	131	11,2
Mostly agree	554	47,4
Completely agree	334	28,5
Missing	23	2,0
Total	1170	100,0

approach to teaching the skills throughout the program and harmonization between the courses offered so that student training is progressive (Murray & Nallaya, 2016). Activities, workshops, classes will be organized to answer the needs of the students for skills development and knowledge (Farrell & Badke, 2015). For example, in a four-year program, certain skills will be taught in the first year, while others will build on these skills in the second year and so on. This way, all students will be developing informational, writing or referencing skills as well as plagiarism, taught by different professors over the four-year program.

Teaching skills and knowledge to prevent plagiarism

Most students arrive at university with some basic informational skills but research has shown that these are not sufficient (O'Sullivan & Dallas, 2017). This is why, students still expect to be trained as shown in our results. What could professors teach them in a disciplinary course that would help them develop these skills and help them prevent plagiarism? Research has shown that many students need to diversify the navigational tools that they use (Georgas, 2014). Using a variety of navigational tools could be taught in the first year of a program while other skills, for example, evaluating sources or distinguishing between real and false news, could be taught afterwards (Kibirige & DePalo, 2017). Yet again, Igo and Kiewra (2007, p. 527) state how students need to

Table 10 Professors' perceptions of their students' level of comfort with academic writing

My undergraduate students are comfortable with academic writing in general.

	Frequency	Percentage
Completely disagree	30	10,8
Mostly disagree	48	17,2
Slightly disagree	28	10,0
Neutral	12	4,3
Slightly agree	77	27,6
Mostly agree	77	27,6
Completely agree	2	,7
Missing	4	1,4
Total	279	100,0

learn how to take proper notes when searching the web, to be able to "engage in deeper mental processes" when reading their sources. All these are necessary skills to learn to prevent plagiarism in assignments.

As for writing skills, students absolutely need more training to be able to use paraphrasing and quoting in their assignments (Barry, 2006; Bronshteyn & Baladad, 2006; McInnis, 2009). It is even more pertinent to learn about this in their own discipline as norms vary from one to the other (Maldoni, 2018; Murray & Nallaya, 2016). Teaching this in a program approach, with lots of practice and feedback (Grohe, Schroeder, & Davis, 2013), could certainly help prevent plagiarism (Maldoni, 2018).

Referencing skills need to be taught at university since high school students are often not required to provide references when using sources in their homework (Chanock, 2008; Williamson & McGregor, 2011). Stevens (2016) reports how students have lots of difficulties writing their bibliographies as there exists many guidelines for the presentation norms (Escorcia, 2015). However, universities, whose mission is to develop skills, ethical values and integrity, (Gerstein & Friedman, 2016) are the perfect environment for students to learn about referencing. The mechanics of referencing could be dealt with by teaching students, as early as in their first year of university, how to use a bibliography management software, Endnote or Mendeley for example, which very few students know how to use according to Milewski and Williamson (2017). Teaching students to recognize the importance of sources, how to integrate them coherently in their assignments would certainly help them understand the relevance and value of writing with integrity (Grohe et al., 2013).

Finally, in order to prevent plagiarism, students must be armed with knowledge about what it is (Brown & Janssen, 2017). Research has shown that students are bewildered with what constitutes plagiarism or not (A. Palmer et al., 2019) and by the mixed signals they received from their professors (A. Palmer et al., 2019). Students would certainly benefit from clear directives and from knowing the expectations are the same from all the professors in their program (Grohe et al., 2013).

Conclusion

Most universities are actively trying to detect plagiarism. In an ideal world, all universities as a preventative measure, would implement program approaches that would teach all the skills and knowledge needed to promote academic integrity. However, students are reaching out, asking to be trained by the professors while in university. It is our mandate, our responsibility to close the gap between the level of skill and knowledge acquired before university and that required to succeed in university studies. We need to give our students the training they deserve so that they can leave our institutions and go out in the workforce with the skills and knowledge they need but also with knowing how to work with integrity.

It may be necessary to think realistically that it is not only professors who should take charge of teaching skills to avoid plagiarism. University curriculum developers and institutions also have a role to play because, on the one hand, they structure the training and exit profile of students and, on the other hand, it is the institutions that certify the degrees awarded. For the latter to have merit, every effort must be made to ensure that future generations of graduates develop their academic integrity.

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