

High school students' understanding of e-plagiarism: Some New Zealand observations

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Abstract

While in the last decade there has been a growth of research on e-plagiarism in higher education, relatively little research has been conducted in high schools, particularly with regard to the extent to which it is being practised, its implications on assessment practice, and the pedagogical and technical strategies used to cope with it. This paper documents the findings of a study investigating the understanding of New Zealand high school students on the nature and forms of plagiarism, as well as the extent to which they plagiarised. Data in this study has been collected in two ways: (1) a questionnaire survey was administered to a random sample of first-year university students to solicit responses on their understanding of plagiarism when they were in high school; and (2) a content analysis of all the high schools websites in New Zealand was undertaken to gather data on school rules and policies with regard to e-plagiarism. Findings of this study show that the nature of plagiarism has not been clearly understood by students, and many schools considered it primarily as a copyright issue, with rules and regulations on plagiarism written as part of the Internet acceptable use policy.

Introduction

While the word plagiarism first appeared in English usage in the seventeenth century, it was only until the last century that schools and tertiary institutions considered it a serious academic issue (Howard, 2000). With the advent of information and communication technologies, it appears that plagiarism has been on the rise in the last couple of decades. Plagiarism is a phenomenon not easy to define. Most commentators maintain that it is an unethical behaviour of academic dishonesty (Franklyn-Stokes & Newstead, 1995). Other commentators, however, suggest that it is culturally situated, as plagiarism is understood differently in cultures where “using someone else’s work is a sign of respect” (Georgetown University Honor Council, 2006, also refer Ashworth, Freewood, & Macdonald, 2003), thus it is ethical to plagiarise. Also, the issue of intentionality should be taken into account as plagiarism can be the result of “sloppy note-taking and hasty composition” (Mallon, 1989, cited from Howard, 2000, p.480), due to a lack of understanding of citation rules and referencing styles. It therefore should not be seen as an intentional act of cheating. There is also a debate as to whether or not plagiarism is a viable concept in the digital age. For example, Robin Mason, a pioneer in online learning, argues that materials available on the Internet should be considered as ‘public property’, ‘shared material’ (Baggaley & Spencer, 2005), and therefore, “reusing material should be viewed as a skill to be encouraged, not as academic plagiarism to be despised” (Mason, 1998, p.8), thus plagiarism is framed within the context of private versus public rights of information accessing and intellectual property ownership. Finally, plagiarism can be viewed as a literacy practice (Valentine, 2006).

While in the last decade we have seen a growth of research exploring the impact of digital technologies on plagiarism, particularly at the tertiary level, little empirical research is available at the high school level to document students’ understanding of the nature and forms of e-plagiarism (also called Internet plagiarism, online plagiarism, or cut-and-paste plagiarism), why it is practised, the extent to which it is being practised, its implications on assessment practice, and pedagogical and technical strategies used to cope with it (Underwood, 2006). In 1999, McCabe identified that Internet plagiarism was beginning to be a concern for schools and students believed that Internet plagiarism was difficult to detect, especially as many teachers were not as computer savvy as they were. With the advent of the Internet, there has been a proliferation of essay-selling websites. One source estimates that there were over 250 such ‘paper mills’ available in 2006 (refer <http://www.coastal.edu/library/presentations/mills2.html>), which some suggested as a factor contributing to the increase of online plagiarism (Bruster, 2004). McCabe subsequently conducted a series of studies between 2001 and 2005 surveying over 18,000 American high school students. He reported that over 60% of them admitted to some form of plagiarism, and approximately half of his respondents engaged in Internet plagiarism (McCabe, 2005, cited in Sisti, 2007). A smaller figure was reported by Sisti’s own study (2007), where 35% of his respondents directly cut and pasted materials from the Internet to their assignment. Sisti’s study (2007), conducted in 2004-2005, surveyed 160 high school students (Grades 9 to 12) in five American schools. Sisti (2007) in his study also asked the subgroup of those who had admitted to cutting and pasting materials from the Internet, if they believed this to be plagiarism and found that 46% knew it to be so. Sisti also suggests that cut and paste plagiarism may be more prevalent than the study indicated as there may be “a conspiracy of silence around this particular cheating behavior; everyone does it but it remains unspoken”(pp. 224-225). The consensus seems to be that although unspoken, everyone is doing it, and if students do not plagiarise then they will fall behind their cheating peers (Sisti, 2007). Sisti’s (2007) study was consistent with a large survey of 35,000 American high and

middle school students conducted by the Josephson Institute in 2006. In this “American Report Card on the Ethics of American Youth” study, a number of questions about ethical behaviours were asked and one of the questions was related to plagiarism. When the respondents were asked “How many times you copied an internet document for a classroom assignment in the past year”, nearly one-third of them (32.9%) reported that they had done it at least once (Josephson Institute, 2006).

In the UK, a survey conducted by the Association of Teachers and Lecturers (2008) in December, 2007 with 278 sixth form teachers reported that 58% of the respondents considered plagiarism a problem, and 27% of the teachers estimated that half or more than half of the work returned by their students involved Internet plagiarism. Over half of the respondents (55%) said that students did not have sufficient understanding of what constituted as plagiarism and the same proportion of teachers reported that their schools either did not have a policy to deal with plagiarism or they were not aware of such a policy. According to one teacher,

I have found once students clearly understand what plagiarism is, its consequences and how to reference correctly...plagiarism becomes less of a problem. I think the majority of students who engage in plagiarism do it more out of ignorance than the desire to cheat.

A qualitative study was undertaken by Ma, Lu, Turner, and Wan (2007) to investigate the influence of the use of the Internet on ethical issues with 36 middle school students (Grades 6-8) in the U.S. Using focus group interviews, they found that the Internet did facilitate plagiarism, as it was convenient for students to cut and paste materials from the Web for use in their assignments, and one-quarter of the respondents had done cut and paste plagiarism in the past. There can be no doubt that students are increasingly using the Internet as an information source for their school work, with one report (DeBell and Chapman, 2003) estimating that in 2001 over two-thirds (66%) of American high school students (ages 15–17) used the Internet for their homework (based on the Current Population Survey, with data gathered from 28,002 5- to 17-year-olds), that e-plagiarism has been on the rise since (Sisti, 2007).

Sisti’s study (2007) also investigated why high school students e-plagiarised. He reported that typical justifications included: no time to complete the assignment; everyone else is doing it; and there was no clear school policy with regard to cut and paste plagiarism. These justifications are similar to studies conducted with tertiary students (Franklyn-Stokes & Newstead, 1995). Would age or gender be a factor affecting plagiarism? Some studies show that they may be correlated. For example, in the study conducted by the Josephson Institute (2006), it was reported that more Grade 12 students (32.29%) plagiarised than Grade 6 middle schools students (20.7%). In the same report, a larger proportion of male students (39.7%) plagiarised than female students (26%) in high schools. This study was consistent with Jensen, Arnett, Feldman, and Cauffman’s study (2002) comparing academic dishonesty between university and high school students. In their study they concluded that female and college students considered academic cheating, including plagiarism, as less acceptable than male and high school students, and cheating behaviours were more common for high school than college students. It seems that students in their high school years are most susceptible to plagiarism.

This paper documents a study investigating some of the issues related to e-plagiarism in the New Zealand school context. Findings of a questionnaire survey of 241 freshly graduated high school students, with regard to their understanding of the nature of e-plagiarism, as well as the extent to which they had plagiarised in their high school years, are reported. To understand how schools view e-plagiarism, an exploratory analysis of 18 Internet acceptable use policies available on the high schools' websites was also conducted, and the findings are reported in this paper.

High school students' understanding of e-plagiarism

Participants

A questionnaire survey was conducted in a research-intensive New Zealand university during the enrolment week in February, 2008, when students were queuing up for enrolment at several campus locations. A total of 960 students, selected randomly, were successfully surveyed, which constituted 4.9% of the total enrolment of the university. Apart from soliciting some personal information, ten statements were included in the survey (refer Table 1) to gauge the respondents' understanding of the nature of plagiarism. Four additional questions were designed to target the first year students who had just graduated from high schools in December, 2007. In total, 241 respondents provided valid responses, accounting for 4.6% of the first year enrolment of the university. Of these respondents, 70% were female, and 30% were male.

Understanding the nature of plagiarism

The respondents were asked to consider ten statements on the questionnaire about plagiarism and four of them were directly related to e-plagiarism (e.g., "you copy material from the Internet and paste it into your assignment without acknowledging the author or the source"). They were also asked to rate the seriousness of each statement, on a five-point Likert type scale (from not serious to most serious). In addition, respondents were also asked to report the extent to which they had plagiarised, in each form of plagiarism, on a five-point scale (from never to more than 10 times). Table 1 provides a summary of the respondents' answers to these ten scenarios.

Table1: Percentages of respondents' understanding of the ten plagiarism statements

Plagiarism scenario	% of respondents agreeing that it is plagiarism	% of respondents considering it very and most serious	Rank order of seriousness	% of respondents who had done it at least once before
1. You copy material from a source (e.g., a book) and use it directly in your assignment without using quotation marks and acknowledging the author and the source.	95.4	87.2	4	34.5
2. You copy material from a source (e.g., a book) and use it directly in your assignment without using quotation marks BUT have included the source on the reference list.	68.1	22.3	10	57.2

3. You copy material from the Internet and paste it into your assignment without acknowledging the author or the source.	97.1	81.9	5	28.5
4. You copy ideas from a source (e.g., a book or the Internet) and use it in your assignment without acknowledging the author or the source.	74.9	67.3	6	41.7
5. You copy material from a source (e.g., a book), modify it slightly, and use it in your assignment without acknowledging the author or the source.	74.9	43.8	9	56.0
6. You copy material from the Internet, modify it slightly, and use it in your assignment without acknowledging the author or the source.	75.1	45.9	8	50.2
7. You copy just a few sentences from each of a variety of sources and patch them together as your own work without acknowledging the sources or the authors.	85.4	58.3	7	36.2
8. You copy a whole assignment / essay from a source and submit it as your own.	96.7	97.8	1	3.4
9. You buy a paper from a website and submit it as your own.	95.7	96.0	2	4.2
10. You submit an assignment wholly or partly written by someone else (e.g., a friend)	93.2	89.5	3	6.0

Table 1 shows that while the majority of the respondents considered all ten scenarios as plagiarism, over 90% of the participants responded positively to five statements (1, 3, 8, 9, and 10). It seems that there was almost total agreement among respondents that copying or cutting and pasting materials from a source, whether it was from a book, or from the Internet, should be acknowledged, and copying a whole essay from someone else, buying it from a website or asking someone to write it for you, were plagiarism. It is interesting to note that statement two had the least support from the respondents. About one-third of the respondents considered that even though they did not use quotation marks when copying materials directly from a source, if they had included the source in their reference list, it should not be treated as plagiarism. This may be a misconception of the definition of plagiarism as commonly formulated by academic institutions. Comparing the responses of statements one and two shows that over a quarter (27.3%) of the respondents did not have an adequate understanding of citation and referencing conventions.

With regard to e-plagiarism, almost all the respondents (97.1%) considered copying materials from the Internet without acknowledging the author or source as plagiarism. Also, over 95% of the respondents considered that buying a paper from a website and submitting it as their own was plagiarism. However, when it comes to copying ideas or paraphrasing texts from the Internet, significantly fewer respondents (only about three-quarters) considered it plagiarism.

For those respondents who viewed these ten statements as an accurate depiction of plagiarism, they differed in opinions with regard to how seriousness they were. Almost all the respondents considered copying a whole assignment from a source, including buying it from the Web, as a very or most serious offence (rated 4 or 5 on the Likert scale). Over 80% of the respondents also considered it very or most serious to copy materials directly from the Internet. While nearly 90% of the respondents considered copying material from a source without using quotation marks as not acceptable, almost 80% of the respondents considered it not serious if they had included the source in their reference list. In fact, this statement was ranked as the least serious of all the ten plagiarism scenarios, and it was this form of plagiarism that was most likely to be practised by the respondents at least once in previous years (refer Table 1). Paraphrasing from a source including the Internet was not considered as serious by over half of the respondents, but slightly more respondents (58%) considered patchwriting (copy a few sentences from each of a variety of sources and patch them together) as serious plagiarising (statement seven).

To what extent did New Zealand high school students plagiarise?

In the study when the respondents were asked whether or not they had plagiarised during their high school years, 50% of the respondents reported that they had done it at least once. Further analyses of the data show that there was a much higher percentage of plagiarism in those statements (2, 4, 5, 6) where fewer students considered them as plagiarism, as can be seen from Table 1. It should be noted that even in statements 1 and 3, where there was an extremely high level of agreement among respondents (over 95%) that they were plagiarism scenarios, over one-third of the respondents had practised these two forms of plagiarism at least once in their high school years. Perhaps responses from these two statements can give us a more accurate picture of the extent of plagiarism in high schools, as the higher proportion of plagiarism cases in the other four scenarios (2, 4, 5, 6) may simply reflect a lack of understanding of the complexity of the plagiarism concept, citation rules, or referencing styles.

Why did high students plagiarise?

The purpose of this study was not to investigate why high school students plagiarised. Thus, no direct question was asked in the questionnaire survey of why the respondents plagiarised. However, from the data we have gathered, some possible explanations can be explored here.

Firstly, the Internet may have an effect on plagiarism. When asked in the survey whether or not the Internet would make it easier for the respondents to plagiarise, 90% of the respondents responded positively. Consistent with the literature, there was a consensus in this group of respondents that the advent of the Internet had an effect on plagiarism.

Secondly, was the lack of understanding of plagiarism led to an increase of plagiarism and e-plagiarism in high schools? In the study the majority of the students (72.4%) reported that they did feel that they had a good understanding of plagiarism when they were in high school, and 90% of the respondents considered plagiarism as academic dishonesty. 70.7% reported that their school had a policy on plagiarism, and three-quarters of the respondents reported that their teachers did discuss issues related to plagiarism with them. So it seems that the high school respondents in this study had a good understanding of plagiarism. However, as has been discussed in the previous section, the responses from the ten statements show that there

was a varying degree of understanding of the nature of plagiarism and the seriousness of different forms of plagiarism, showing that up to one-third of the respondents in this study might be able to avoid plagiarising if they had a better understanding of the concept of plagiarism.

A chi-square test was performed to investigate whether male and female students understood plagiarism differently. In each of the plagiarism scenarios (except statements 8, 9, & 10 where the number of students responding positively was too small to perform a valid test), the obtained χ^2 was insignificant at the 0.05 level, showing that there was no difference in terms of understanding of plagiarism between the male and female respondents. In terms of the extent of plagiarism, a chi-square test was also conducted on all ten forms of plagiarism, and there was again no significant difference between male and female students, at the 0.05 level, in the number of times they had plagiarised. While gender was not found as a factor in this study, significant differences between male and female students in terms of their attitudes towards cheating have been identified in the literature (e.g., Jensen et al., 2002). Further research is needed to gain a better understanding in this area.

Finally, while 50% of the respondents reported in this study that they had plagiarised at least once in their high school years, only 2.9% of them had been penalised for what they had done. Was the lack of reporting or determent a factor?

Website survey on e-plagiarism policies

To further understand whether or not New Zealand high schools had a policy on e-plagiarism, which may have affected how students understand the nature of plagiarism, a content analysis of all the New Zealand high schools' websites was conducted. It is expected that plagiarism policy would be included as part of a school's assessment policy, and e-plagiarism would also be spelled out in the acceptable Internet use policy, which should be available on the school's website.

In 2008 there were 378 secondary schools in New Zealand and two sources were used to obtain their website addresses. The first was through Te Kete Ipurangi (TKI), the Online Learning Centre, a website administered by the New Zealand Ministry of Education, designed to be used by teachers and students. TKI has a listing of school websites. The New Zealand Search.com (NZS) website (<http://www.nzs.com/education/secondary/>) was also used. The NZS list contains web links to schools such as area schools and independent schools which are not available in the TKI list. By cross referencing both lists a final list of 348 schools was compiled. A search of each school website was conducted, looking for information on cyber-safety, Internet user, and Internet plagiarism policies. It is unfortunate that only 29 schools had some information about plagiarism in their websites, and the majority of them (18) was included as part of the Internet acceptable use policy. These policies are analysed in the following section to document how e-plagiarism has been conceptualised by some of the New Zealand high schools.

Plagiarism as a copyright issue

Typically, New Zealand students and their parents or caregivers have to sign an Internet or computer use agreement in the beginning of the school year. For beginning students, it will be the first time they come across the school policy on plagiarism. An analysis of the 18 Internet use policies available on the Web shows that seven of the schools based their policies on a

template developed by the New Zealand Internet Safety Group, and their statement on plagiarism was exactly the same. Plagiarism has constituted a very small part of the Internet acceptable use policy and is conceptualised as a breach of copyright, and therefore is illegal. Plagiarism is thus considered an unacceptable use of the school computers. In these policies, plagiarism was mentioned in a section called “copyright and licensing”:

Copyright laws and licensing agreements must be respected. This means no involvement in activities such as illegally copying material in any format...using material accessed on the Internet in order to plagiarise...

Another school, again tying plagiarism with copyright, stated in its “copyright and plagiarism” section that:

All communications and information accessed through the Internet must be assumed to be copyrighted. Information gained through the Internet must be referenced appropriately following normal research procedures.

It should be noted that in this policy the term plagiarism was only mentioned in the section heading, but not in the text. Plagiarism is seen as copying materials illegally from the Internet. It is not seen as an academic dishonesty issue, at least in the acceptable use policy. Similarly, a school using the NetSafe Cybersafety Use Agreement for Year 7-10 students, provided the following explanation as to why students had to acknowledge the source of the materials if they copied it from the Internet:

The Internet has allowed easy access to a huge range of information which can be incorporated into students’ work by simply cutting and pasting. Most of this material is copyrighted, and thus involves intellectual property issues. Also, the value to students’ learning is questionable if they have not thought through this information themselves.

In this policy, while the school framed the issue as an intellectual property right issue, it also linked it to good learning.

Plagiarism as lack of acknowledging source

The need to acknowledge information retrieved from the Internet was mentioned in nine policies, and they were not related explicitly to copyright issues. For example, one school policy simply stated that students “will not copy text, files or any other form of information and pass it on as my own work without referencing the source (called plagiarism)”. However, the need for correct citation was only mentioned in one of the school policies.

Plagiarism as cheating

Plagiarism was conceptualised as cheating only in one Internet use policy. In this policy, the school asked students “never use College computers to...copy material from the Internet and claim it as your own work (this is plagiarism and cheating)”.

e-Plagiarism not adequately explained

The term plagiarism was usually not explained in these policies. One school offered the following simple definition:

Cutting and pasting assignments without crediting the source (called plagiarism) is violating copyright law and there can be serious consequences.

Also, how students were expected to avoid plagiarise was not elaborated, other than that penalties are spelled out rather explicitly. In fact, plagiarism was not even mentioned in the policy of one of the schools. None of the policy mentioned about copying ideas from the Web. There was also no mention about paraphrasing as a form of writing or any discussion on literacy practice. It should be noted that it is possible that e-plagiarism has been fully discussed in the schools' assessment policies, as plagiarism should be of great concern to high schools since internal assessments are now a component of the National Certificate of Educational Assessment (NCEA). Follow-up contacts have been made with principals to acquire a copy of their school's assessment policy to conduct a more comprehensive analysis (findings not reported in this paper).

Discussion and Conclusion

This study aimed at investigating the extent high school students in New Zealand understood e-plagiarism. 241 freshly graduated high schools students were surveyed and 18 online Internet user agreements were analysed. The findings of this study show that high school students had a varying degree of understanding of different forms of plagiarism. While at least around 70% of New Zealand high school students could identify what plagiarism was, their awareness of the seriousness of some forms of plagiarism was not high. Also, over half of the respondents self-reported that they had e-plagiarised at least once in their high school years. They cut and pasted material, modified ideas, and paraphrased texts from the Internet. However, very few of them had bought papers from a Web paper mill.

Consistent with studies conducted elsewhere, data gathered from this study shows that high school students in New Zealand did not have a good understanding of citation rules and referencing styles, as more than a quarter (27.3%) of the students did not consider the use of quotation marks for direct citation would be needed to avoid plagiarism. These students would be treated as plagiarisers by most universities even though they had no intention of plagiarising. While the sample of the schools' Internet policies analysed in this study was very small, it was interesting to note that in these policies plagiarism was very often conceptualised as a copyright issue, rather than academic dishonesty. Further analysis should be conducted to examine more closely the schools' assessment policies in order to understand how schools and students understand e-plagiarism. It also seems quite clear from this study that educating students about the concept of plagiarism, as well as providing training on citation conventions will be needed. Some possible explanations of why high school students plagiarised have been attempted in this study, but more evidence is needed to support these explanations. It is an area that further research is needed.

Acknowledgement

The authors would like to acknowledge the support of a University of Otago Research into Teaching Grant for this project. The authors are also grateful to the feedback and comments provided by Dr Keryn Pratt and Dr Fiona McDonald.

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