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Reducing plagiarism by using online software: An experimental study¹

İntihali önlemede bilgisayar yazılımı kullanımı: Deneysel bir çalışma

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Abstract

This action research attempts to explore the perceptions of Turkish university students on plagiarism while evaluating the effectiveness of an online application used to deter plagiarism. The participants were 40 first year university students studying in two different sections of an academic writing class. The findings show that the participants acknowledge the existence of purposive plagiarism while the application shows that anti-plagiarism applications can help reduce university students' level of plagiarism.

Keywords: plagiarism, software, Turnitin

Özet

Bu eylem araştırması Türk üniversite öğrencilerinin intihal olgusuna bakışlarını ortaya koyarak İnternet temelli bir intihal saptama yazılımının intihali önlemedeki etkililiğini saptamaktır. Halen bilimsel yazma derslerine kayıtlı olan toplam 40 katılımcıyla yapılan bu çalışmanın sonuçlarına göre öğrenciler amaçlı olarak intihale teşebbüs ettiklerini belirtmektedir. Ayrıca, çalışmanın bulguları ilgili yazılım aracılığıyla öğrencilerin teşebbüs ettikleri intihalin oranında azalmaya yol açtığı saptanmıştır.

Anahtar sözcükler: İntihal, yazılım, Turnitin

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Introduction

Plagiarism, the act of stealing and passing off the ideas or words of another as one's own according to is a serious and a growing concern in all educational settings. The reason why this concern is growing among academics is probably because of the decrease in academic integrity and paralleled increase in the number of students who commit plagiarism (Born, 2003; Beam, 2003; Dahl, 2007; Hansen, 2003; Maddox, 2008). However, there appears to be cultural differences in how plagiarism is perceived by academics, teachers, and students partly because of the fact the plagiarism is believed to be culturally acceptable among those living out of the western world (Introna, Hayes, Blair, & Wood, 2003). Song- Turner (2008: p. 40) argues that “exactly what constitutes plagiarism has been defined and interpreted differently in different cultures.” As Wheeler’s (2009: p. 18) review of the literature shows, Japanese students are more tolerant toward plagiarism compared to their American counterparts. No matter how plagiarism is defined or treated, researchers, teachers, and instructors complain about its growth and spread as some researchers have already called it an epidemic (Fialkoff & St. Lifer, 2002).

Although there might be perceptual differences, the fact that it has drastically increased all around the world is now obvious. While there might be various reasons for its growth and spread, the Internet is often blamed for this problem. Despite its various positive qualities, the Internet, according to Maddox (2008) has “amplified the problem of plagiarism” especially for “educational institutions” (p. 125). Although the Internet technology has been blamed for this crime, the solution seems to have come from the Internet technology among which Turnitin, an anti-plagiarism program, is known to be a leading one. Churchill (2005), for example, suggests that the use of online e-tivities to invite students to explore online plagiarism and how to avoid it.

Turnitin has been designed to point at the complete fingerprint of a document especially by means of comparing it with an “extensively indexed archive” of online sources including the essays previously entered to its database (Maurer, Kappe, & Zaka, 2006, p. 1061). With the help of software like Turnitin, an “originality report” is produced to illustrate the level of plagiarism that can be found at the end of the process of comparing the submitted document with whatever is available in the Internet.

According to iParadigm (2009), Turnitin's developer, Turnitin drastically drops the level of plagiarism. Research also shows that there has been a drastic improvement in academic honesty in practitioners' classes after the application of Turnitin (Mannix, 2008). Additionally, PR Newswire Association (2006) reports that "institutions adopting Turnitin observed an immediate deterrent effect, resulting in levels of plagiarized student work dropping to approximately 30% from 77%". Hence, this research study explored the perceptions of Turkish college students on plagiarism and evaluated the effectiveness of Turnitin in deterring the level of plagiarism to see if the level of plagiarism occurring in university level classrooms can be reduced. To do that, an action research is planned and put into practice by using the software mentioned above.

Method

The context

This study took place at Middle East Technical University (METU), Ankara, Turkey. METU, one of the English-medium universities in the country has 23,000 students, 1430 of whom are international students from 68 different countries. Before students can start their studies at METU, all students must show having efficient academic English language skills either by successfully completing preparatory school education in English or by submitting a TOEFL IBT score of 74 or above.

Participants

The participants were a total of 40 Turkish undergraduate students with a mean age of 19. They were enrolled in two different sections of a first year academic writing class in the spring semester of 2009. All participants had taken another academic writing class in the fall semester of 2008 in the preparatory school, thus, they were already familiar with writing academic essays. The participants were invited to take part in the study and their participation was voluntary. The students were categorized in two groups as follows:

1. Group 1: 17 engineering students
2. Group 2: 23 engineering students

Instruments

The following two instruments were utilized to answer the research questions of this study.

1. Anonymous online self-report surveys (A pre- and a post- application survey)
2. Turnitin©

It may be argued that self-report surveys may raise concerns about its reliability since the results fully depend on the participants' frankness. However, anonymity of the surveys must have made it easier for the participants to declare their conceptions on academic integrity and plagiarism: two sensitive topics for students to discuss with an instructor.

Procedures

An online pre-application survey was filled by both groups of students anonymously to understand participants' perceptions on the acts considered plagiarism, to find out their reasons for plagiarizing, and to determine how frequently and to what extent students commit plagiarism. All participants were informed about the fact that their participation was voluntary and that the protection of confidentiality was strictly ensured.

Next, Group 1, the application group who had never used Turnitin before, was informed about the program, the originality reports, and about how it works in detecting plagiarism in several lectures with Power Point assisted presentations. To make Turnitin a learning tool for students, a folder named "Self-Study" was created in one of these presentations and the students were informed that they could check their work's originality by submitting it to this folder and revise it if necessary before the final submission for grading. They practiced using the Turnitin by submitting their essays. The originality reports were used in this study to illustrate the level of plagiarism in the application group's writing before they were introduced to Turnitin.

At the same time, Group 2, who had no Turnitin experience, were not given any information about using the program and were not informed that their essays would be checked for originality via this program. The electronic copy of each student's essay in this group was collected and submitted to Turnitin by the researchers. Last, an online post-application survey (with 8

questions) was applied to Group 1 students to collect their views on using Turnitin, its practicality and effectiveness. Sixteen (out of 17) students volunteered to complete the survey.

Data analysis

Data collected in this study were analyzed by means of a combination of qualitative and quantitative strategies. While 8 questions in the pre- and 6 questions in the post- application survey included an open-ended answer option, almost all answers given in the surveys were analyzed by calculating each answer's frequency. Additionally, the data analysis included the following comparisons of the originality reports obtained from Turnitin: a comparison of the reports of the essays written by Group 1 (before and after using Turnitin and a comparison of the reports of Group 1 and Group 2 to see if knowing about Turnitin had an effect on the level of plagiarism.

Findings

Pre-application survey

The results indicate that 27.5% of the participants do not consider plagiarism an academic crime. The results also show that using online (re)sources in preparation of their assignments are common among the participants (45% "strongly agreeing" that they use online (re)sources very frequently). On the other hand, only 17.5% of all participants "strongly agree" that "they correctly cite the sources they use in their papers."

Among all students, 47.5% of them think that submitting an essay or paper that was previously submitted to another class would not be considered plagiarism. Moreover, 45% (2.5% "strongly agree" and 42.5% "agree") of the participants state that they would share their papers with their friends even if they know that their friends would submit it in one of their own classes.

As the results suggest, 45% of the participants personally know students who "intentionally committed plagiarism" at the university. One of the participants implies that essay exchanging is common among students for English 102 course by adding, "I know some essays which is [sic]

used by many students”. Approximately 30% of the participants verify this and admit that they turned in another student's work purposefully.

About the reason for plagiarizing, 47.5% of the participants claimed that “time constrains and deadlines gave them no time to think about paraphrasing or references. The majority of the participants believe that an anti-plagiarism program would be a good remedy for plagiarizing. “There needs to be a deterrent force or systems”, writes one of the participants, and continues, “The students here clearly know that they should not do that, but they also clearly know that they--most probably--won't get caught if they do”.

Before and after the Turnitin

In the originality report of the essays Group 1 students wrote in fall 2008 , the plagiarism level ranged from 8% to 22%. The originality report of the essays written by the same group (after having been familiarized with Turnitin) displays some important changes. The level of plagiarism drops to the range of 0 - 12%. The originality report of Group 2 students' essays, on the other hand, shows a similar result to that of the first report of Group 1, before they got familiarized with Turnitin: 2 – 22%.

Almost all of the Group 1 students believe that using Turnitin was easy. Also, 9 of the students believe that Turnitin was “very effective” in dropping the level of plagiarism in the essays while 14 students claimed that they paid attention to citing the sources they used and paraphrasing properly after they started using Turnitin. When they were asked if there were any disadvantages of Turnitin, 13 of 16 stated that the program was not difficult to use. Furthermore, they all believed that being able to check their essays for originality before the final submission was “very useful”.

Discussion

Answers to the pre-application survey show that many of the participants were in fact unconcerned about the seriousness of plagiarism. This implies that there is a strong need for an anti-plagiarism program to deter, if not to eliminate, plagiarism at universities. Second, the study

shows parallel findings with that of Rinnert and Kobayashi (2003). Why the participants are tolerant to the acts considered plagiarism is most probably because of cultural reasons. Just like their Japanese counterparts Turkish university students seemed to be more likely to plagiarize compared to their counterparts living in the western hemisphere.

Besides these, the findings are also similar to those of other studies about the effectiveness of Turnitin. The comparisons of the originality reports in this paper point out that Turnitin may be an effective remedy for the problems associated with plagiarism because it can be considered as an advantageous tool that can increase students' awareness of academic integrity. One of the participants states in the post-application that the "only disadvantage" of using Turnitin was that "it made plagiarism harder for students." Another student wrote that because of the program, they "had to spend more time for paraphrasing or referencing which is a big disadvantage for us".

Conclusion and implications

Increasing academic integrity is not an easy task. Using software like Turnitin cannot be a panacea for that. However, the decline found before and after Turnitin in the levels of not-successfully-referenced-material in student papers does not seem to be coincidental or random.

Software and Internet applications like Turnitin can be used to assist learning and to help students evaluate their work in progress. In this study, Group 1 students could submit their essays to Turnitin, see their originality reports, and revise their essays before final submission. All of the participants in the post-application survey stated that this was a very useful way to learn about how well they paraphrased and cited. In short, instructors can get help from such tools like Turnitin to raise students' awareness of plagiarism.

Findings gathered in this study with the participation of a limited number of students cannot be generalized and regarded as extensible to all university students in Turkey. Large scale studies with more participants both from Turkey and other countries may help drawing more valid and reliable conclusions.

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