

Do Paperless Grading Tools Improve the Quality of Assessment?

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Introduction

Teachers in all subjects—but particularly the humanities—face huge piles of student writing on a regular basis. The careful grading of this writing demands time and energy. Teachers want to save that time and energy without sacrificing the quality of their feedback. However, many teachers are slow to change their methodology unless they can see proof that a new strategy will indeed be more efficient.

Paperless grading tools provide a new approach with the capacity to improve the experience of grading essays for many teachers. For example, Turnitin's suite of programs can reduce the teacher's need to ferret out plagiarism, allow for quick feedback that has depth and clarity, and save the teacher time in the collection and re-distribution of student writing. But are these tools truly more efficient?

This study sought to answer the question: can paperless grading tools improve the efficiency of the grading of student writing?



Figure 1. Harber, K. (2008). *Dead Tree Graveyard*. Retrieved from <http://www.flickr.com/photos/kevharb/3056726319/>

Materials and Methods

The study was conducted through the use of a survey which targeted English and Social Science teachers since these teachers were likely to grade the most formal writing. Teachers were the focus rather than students because it was the teachers' efficiency and the teachers' evaluation of grading methodologies that would answer the research question.

The survey addressed the amount of time teachers spend grading and their level of satisfaction with that time expenditure. It asked about the amount of feedback teachers provided and whether they felt their feedback was accessed, understood, or applied by their students.

The survey sought to determine whether teachers relied on any form of technology to increase the efficiency of their grading. Finally, the survey asked whether teachers used Turnitin, providing numerous questions for yes respondents to indicate which elements of the software they had used and how satisfied they were with the results. The survey was distributed in the fall and collected within a month of distribution. 14 teachers participated in the survey.



Figure 2. Berkeley, C. (2009). *Macintosh Laptop*. Retrieved from http://www.flickr.com/photos/mac_users_gui/4052389324/

Results

In an attempt to answer the question of grading efficiency, this study turned to teachers to find out what methods—tech-savvy or not—have allowed them to maximize the feedback they provide.

The majority of respondents (n=8) reported that they spend at least three additional hours per week grading student writing (Fig. 3).

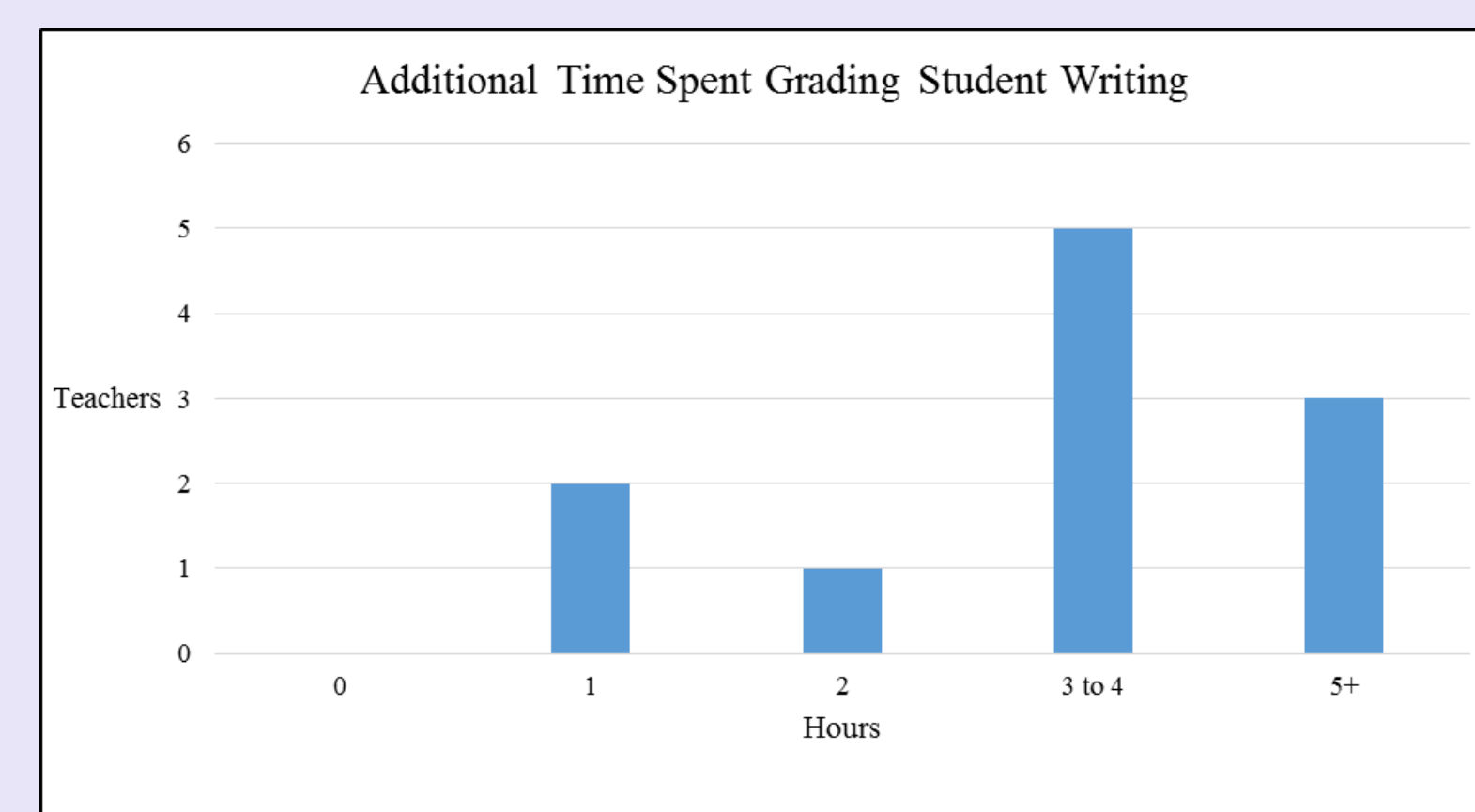


Figure 3. Time expenditure by teachers

When asked about their level of satisfaction with this expenditure of time, the majority of teachers (n=8) indicated dissatisfaction (see Figure 4).

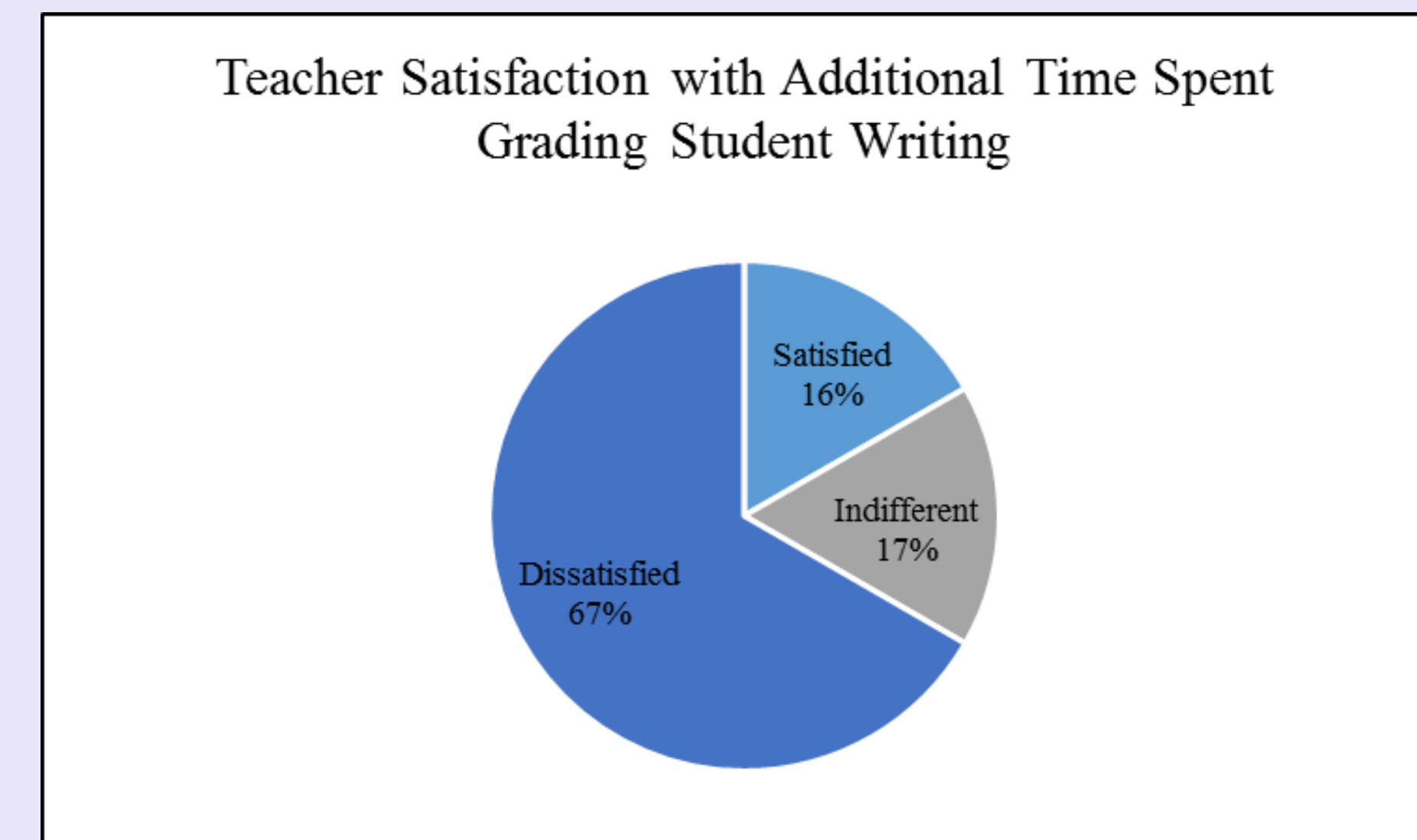


Figure 4. Teacher satisfaction with additional time spent grading student writing

In combination, these figures suggest that most of the teachers surveyed were dissatisfied with the additional time required to grade student writing. Alone, these data might point toward reduction of morale and teacher burnout. However, we must consider whether teachers are motivated by a belief that the feedback they are providing is making an impact on their students. Nearly half of the respondents were satisfied with the comments they provided (see Figure 5).

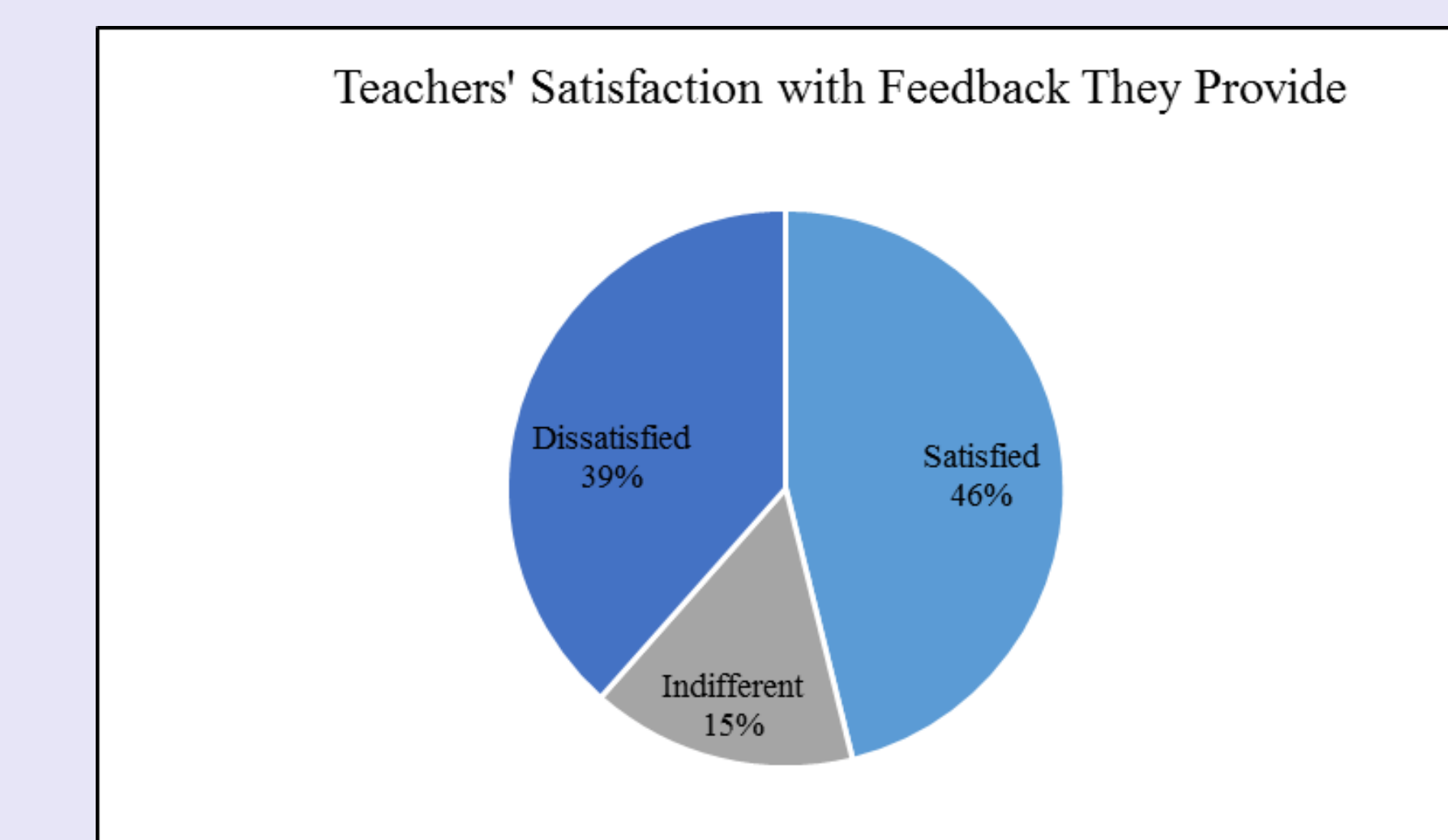


Figure 5. Teachers' Satisfaction with the feedback they provide

In terms of time spent grading, the policing of plagiarism can mean additional time required of the teacher and additional frustration with the process. Most of the teachers surveyed encountered numerous instances of plagiarism every year (see Figure 6).

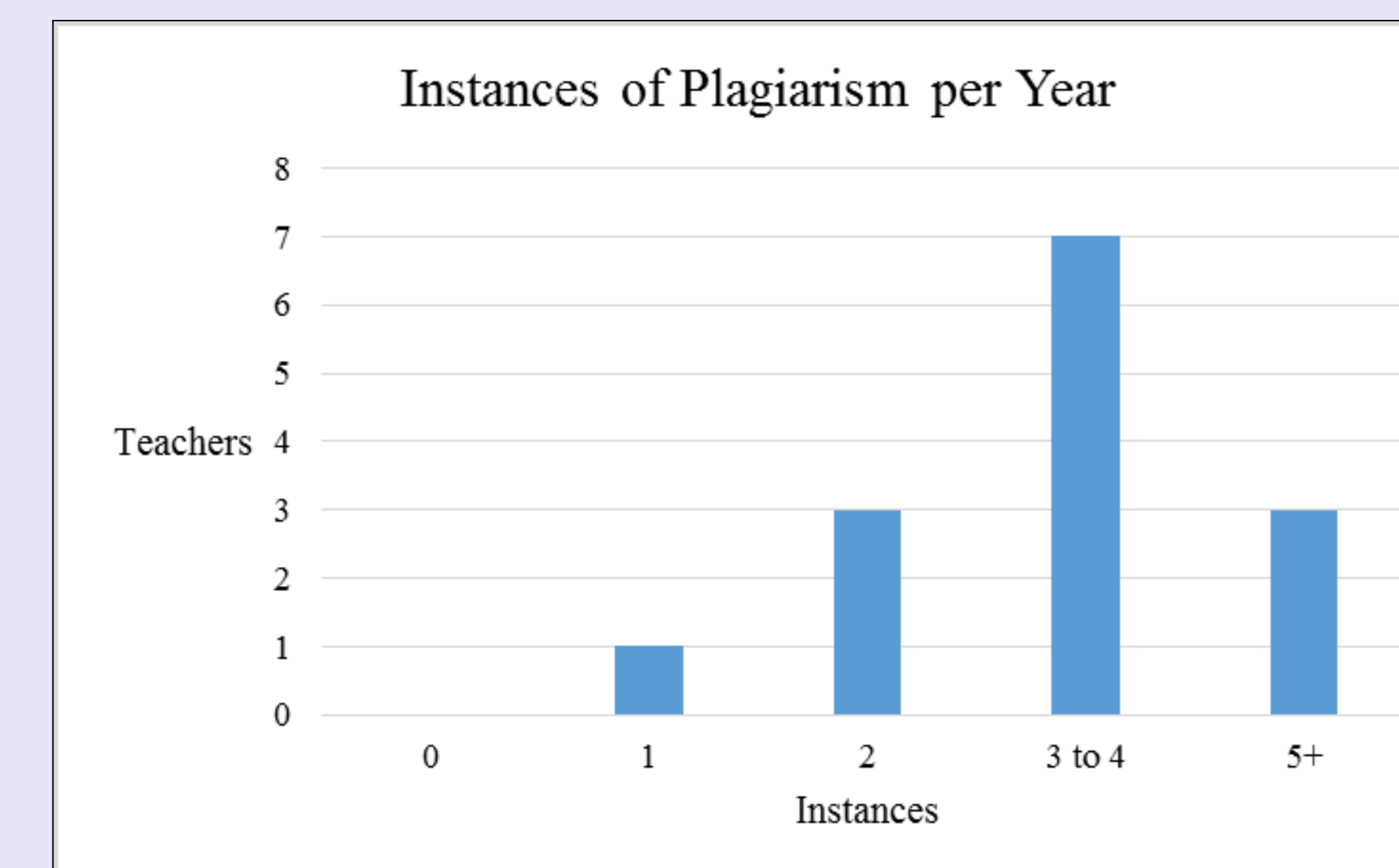


Figure 6. Instances of Plagiarism per Year

In spite of these frustrations, teachers were reluctant to try new methods. Only a little more than half of the respondents had made use of Turnitin (See Figure 7).

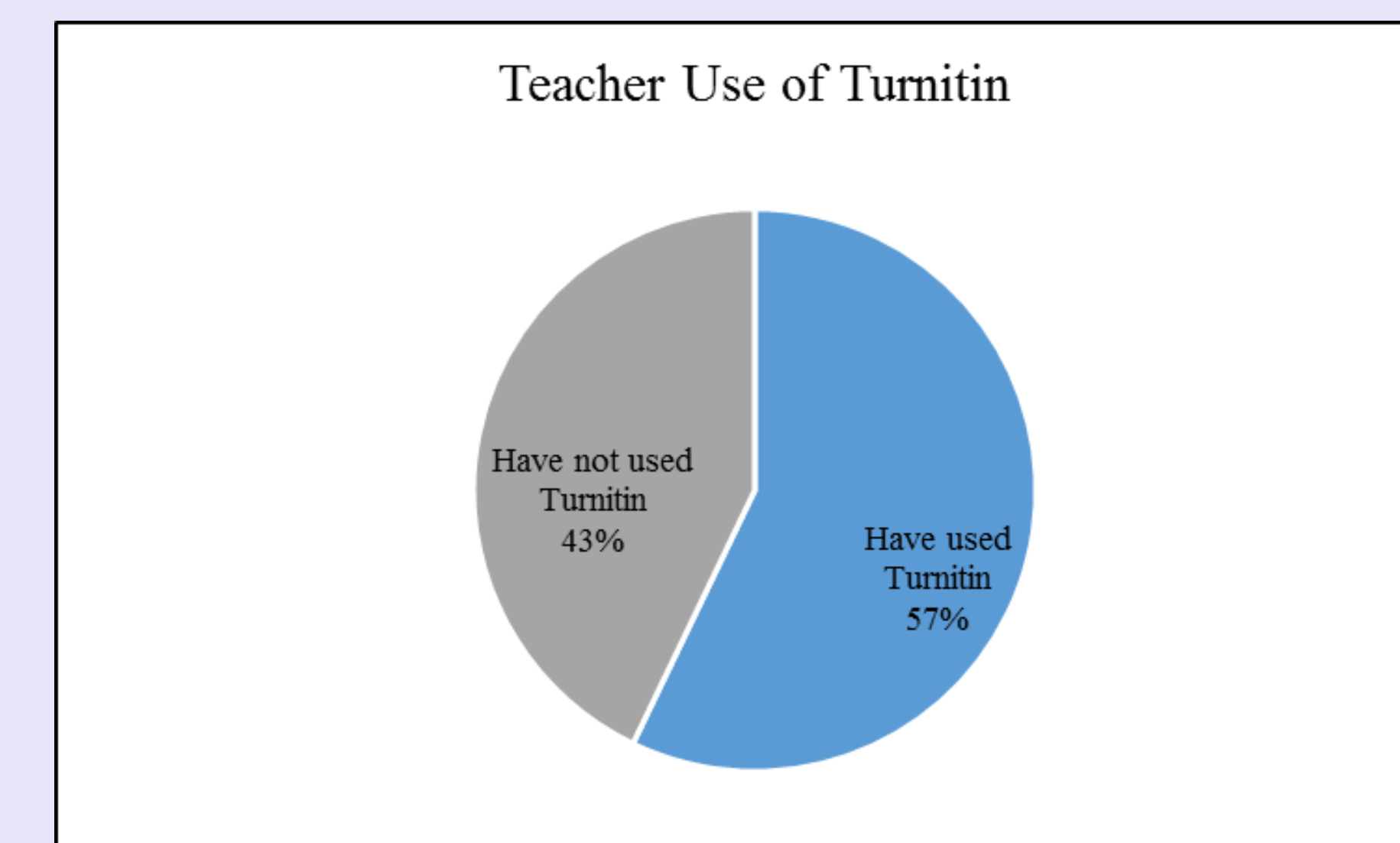


Figure 7. Teacher Use of Turnitin

Even those teachers who were using online tools in an effort to improve their grading practice were working outside of their comfort zone. Of the respondents who had used Turnitin, the vast majority still claimed to be more comfortable grading with the traditional pen-and-paper (see Figure 8).

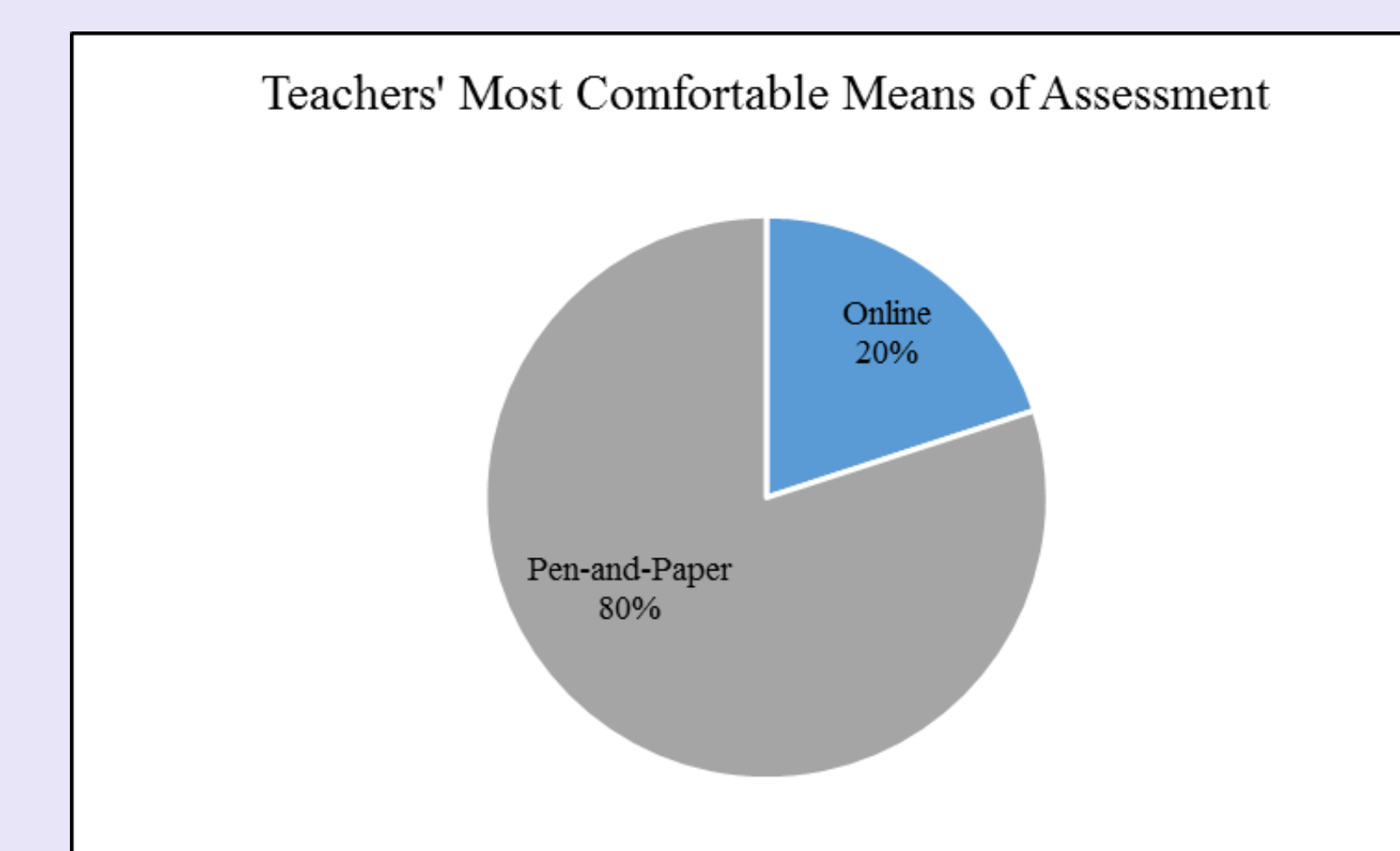


Figure 8. Teacher's Most Comfortable Means of Assessment

Conclusions

One teacher's response at the end of the survey summed up the impetus behind this entire study. When asked for any additional comment, he stated: "I've spent 30 years trying to devise ways to have my students write more without it killing me. I have found damn few solutions." Evidently, this study is not the first attempt to solve the puzzle of efficiency in grading.

While teachers have the option to try to improve the process through the use of technology, few have made the attempt and still fewer have become comfortable with the change.

The feedback of the respondents shows that many teachers would be open to alternatives such as paperless grading if they had someone to ease them through the initiating steps. The site administrator of Turnitin should focus on exposing teachers to the benefits of paperless grading and easing their discomfort.

The question central to this study was whether paperless grading tools could improve the process of grading student writing. The answer seems to be a conditional yes. If teachers are sufficiently comfortable and familiar with the technological tools available to them, they can improve their efficiency and the impact of their feedback. Through proper training and continued support, teachers should be able to attain that level of comfort. Ultimately, then, teachers have the potential to improve and expedite their feedback and thereby to achieve a worthy goal: the improvement of student writing.

Literature Cited

- Black, P., & Wiliam, D. (1998). Inside the black box. *Phi Delta Kappan*, 80(2), 139–148.
- Bousquet, M. (2012, April 18). Robots Are Grading Your Papers! Brainstorm. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/blogs/brainstorm/robots-are-grading-your-papers/45833>
- Heinrich, E., Milne, J., & Moore, M. (2009). An Investigation into E-Tool Use for Formative Assignment Assessment - Status and Recommendations. *Journal of Educational Technology & Society*, 12(4), n/a.
- Hessler, T., Konrad, M., & Alber-Morgan, S. (2009). Assess Student Writing. *Intervention in School and Clinic*, 45(1), 68–71.
- Krucli, T. E. (2004). Making Assessment Matter: Using the Computer to Create Interactive Feedback. *English Journal, High school edition*, 94(1), 47–52.
- Rolfe, V. (2011). Can Turnitin Be Used to Provide Instant Formative Feedback? *British Journal of Educational Technology*, 42(4), 701–710.
- Wasley, P. (2008). Antiplagiarism Software Takes on the Honor Code. *Chronicle of Higher Education*, 54(25), A12.
- Zwagerman, S. (2008). The Scarlet P: Plagiarism, Panopticism, and the Rhetoric of Academic Integrity. *College Composition and Communication*, 59(4), 676–710.

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For further information

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