THE SCIENTIFIC BASIS OF TURNITIN

Research on Effective Writing Pedagogy and Practice
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1.0 SUMMARY

This document examines key research about pedagogy and practice in writing instruction and summarizes some of the educational conclusions drawn from them. This body of knowledge is the scientific basis for the development of Turnitin, a powerful instructional tool available to support written work across the curriculum.

The research findings in the summaries below align with the results customers expect when they follow best practices using Turnitin’s services. The research summaries, grouped according to pedagogical strategies Turnitin offers, enables educators to make confident, evidence-based decisions to incorporate Turnitin into their instructional programs.
2.1 TEACHING STUDENTS TO WRITE USING THE WRITING PROCESS IS EFFECTIVE


Graham, S., Harris, K. & Mason, L. (2005). Improving the writing performance, knowledge and self-efficacy of struggling young writers: The effects of self-regulated strategy development. This study investigated how Self-Regulated Strategy Development (SRSD) enhanced writing for third-grade students. Asked to perform two genre-specific writing tasks were 317 students in 12 classrooms across four schools. The tasks used process writing strategies such as picking a topic, organizing ideas prior to writing, and improving the plan while writing. A second component of this study was to determine if peer feedback would improve student performance. Students who were offered the SRSD approach wrote longer, more complete and overall better stories in comparison to those who did not receive this form of instruction. SRSD also improved their overall knowledge of the writing process. Furthermore, writing performance, time spent writing, and other measures were enhanced with the addition of peer feedback in the writing process. Contemporary Educational Psychology, 30(2), 207-241.

Olson, Vicki L. Brakel (1990). The revising processes of sixth-grade writers with and without peer feedback. Ninety-three sixth-graders in six classrooms were asked to write several stories with their final story being examined for the purposes of this study. The author sought to determine whether peer feedback influenced the revision and quality of student writing in their drafts and final stories. The students were divided into the following groups: Those who received revision instruction and peer partners (RI/PP), students with only a peer partner (PP), students with revision instruction only (RI), and a control group containing students who completed the assignments with no revision instruction and no peer partner. Revisions were analyzed on the following criteria: single-word changes, multiple-word changes, sentence level changes, and multiple-sentence level changes. The results suggest that the amount and quality of revision were influenced by peer reviewers and that sixth-grade students are capable of improving writing through a multiple-draft process with and without peer feedback on their writing. Journal of Educational Research, 84(1), 22-29.

2.2 ACADEMIC INTEGRITY IN WRITING IS WORTHWHILE: STUDENTS SHOULD EXHIBIT ORIGINALITY IN WRITING AND, WHEN SOURCES ARE USED, EMPLOY PROPER DOCUMENTATION

Honz, K., Kiewra, K.A., and Yang, Y. (2010) Cheating Perceptions and Prevalence Across Academic Settings. This study looked at the perceptions of cheating on tests, completing homework and writing reports of 100 high school juniors from four 25-student English classes. The school was a Midwestern high school and the participants had an average GPA of 3.0. This study revealed that students tended to consider cheating activities were more significant with testing, less so with homework and least of all with writing reports. Students viewed cheating behaviors in the
classroom more harshly than cheating behaviors outside the classroom. 54% of students surveyed did not identify that plagiarism was a form of cheating and 50% admitted that they had either used material from the internet as their own, used someone else's ideas as their own and/or plagiarized material in a written report. *Mid-Western Educational Researcher* 23(2), 10-17

McCabe, D.L, Trevino, L.K. & Butterfield, K. (2001). Cheating in academic institutions: A decade of research. The authors note that definitions of plagiarism have changed for students. Students recognize that when they quote the work of another author, they must also cite the work, but they do not recognize that ideas borrowed from another author and used in their papers also require citation. *Ethics & Behavior*, 11(3), 219-232.

McCabe, D.L. (1999). Academic Dishonesty Among High School Students. Using an in-depth focus group discussion, McCabe recognized that high school students do not take personal responsibility for academic dishonesty; furthermore, high school students do not see cheating as morally wrong. Technology has made it easier to copy and paste written material from the Internet into students’ own writing as well as easier to access online paper mills. *Adolescence*, 34.

Dant, D. (1986). Plagiarism in high school: A survey. Dant surveyed 20% of the incoming freshman composition students at Brigham Young University with 309 respondents. Nearly half of the students (47.1%) understood how to avoid plagiarism in their senior year of high school. Those who did not understand plagiarism did the most word-for-word copying. However, of those who clearly understood plagiarism, 34% copied either before or during their senior year of high school. *English Journal*, 75(2), 81-84.

2.3 PROVIDING OPPORTUNITIES FOR MORE FREQUENT FORMATIVE FEEDBACK AND ASSESSMENT CAN IMPROVE STUDENT WRITING

Hrasky, S. & Kronenberg, D (July 2010). Curriculum redesign as a faculty-centered approach to plagiarism reduction.

Assumptions about plagiarism have traditionally centered on the notion that it is the students’ responsibility to avoid it. However, recent research suggests that improved pedagogy and assessment design can reduce plagiarism. In 2002, the Centre for Study for Higher Education (CSHE) for the Australian Universities Teaching Committee (AUTC) devised a report that suggested four key strategies to reducing plagiarism on a campus:

- “A collaborative effort at all levels from the individual staff member to the institutional and policy level to counter plagiarism;
- Educating students appropriately;
- Designing assessment such that the possibility of plagiarism is minimized; and
- Implementing highly visible detection and monitoring procedures accompanied by appropriate punitive measures.”

Recent research findings in this paper encourage institutions to take such holistic approaches to reduce plagiarism, and suggests that in assessing student writing instructors focus on the writing process and mark the paper in stages rather than on just the final draft. Unpublished paper presented at the 4th International Plagiarism Conference, Northumbria University, City Campus East. Retrieved from http://www.plagiarismadvice.org/conference/previous-plagiarism-conferences/4th-plagiarism-conference-2010.

Based upon research in the field of writing, assessments should be formative. Langer (2001) suggests that writing requires practice with opportunities for writing and formative assessment, that is, commenting on student drafts and providing revision ideas on those drafts. Pathey-Chavez, G.B, Matsumura, L. & Valdes, R. (2004) establish that feedback which asks students to further their development results in writing improvement, yet feedback on grammar and mechanics does not promote further development in the writing. Chai, C. (2006) finds that students who do implement self-reflection write better papers and this self-reflection can be facilitated by instructor feedback early on in the writing process. Retrieved from http://www.ncte.org.

2.4 PEER REVIEW IS BENEFICIAL TO STUDENT WRITERS AND CAN IMPROVE THEIR WRITING SKILLS


Matsuno, S. (2009). Self-, peer-, and teacher-assessments in Japanese university EFL writing classrooms. This study of 91 students and 4 teacher raters in a multifaceted Rasch measurement determined that peer assessment is consistent in rating patterns and did not fluctuate with students’ own writing abilities as did self-assessments. Student reviews also contained little bias when compared to faculty assessment, thus they are beneficial as a form of formal assessment. Language Testing, 26(1), 75-100.

Yang, J.C., Ko, H.W. & Chung, I. L. (2005). Web-based interactive writing environment: development and evaluation. A web-based writing environment in which students submitted multiple writing tasks, engaged in discussion boards, and reviewed one another’s writing online proved to improve elementary school student writing. This web-based environment included peer assessment and revealed that elementary students, when given specific criteria or rubrics, were capable of assessing peer work equivalent to an expert reviewer. Educational Technology & Society, 8(2), 214-229.

Lundstrom, K. & Baker, W. (2009). To give is better than to receive: The benefits of peer review to the reviewer’s own writing. Lundstrom and Baker (2009) investigated whether it was better to give peer feedback, which included peer editing, evaluation and response, or to receive peer feedback. The study was conducted at an English institute and consisted of 91 students across nine writing courses. The results indicated that students who gave peer feedback improved writing significantly when compared to students who only received peer feedback. Since this group of students covered two levels of proficiency, the authors further noted that students of lower proficiency made more writing improvements from offering peer review than did those at higher proficiency levels. Journal of Second Language Writing, 18(1), 30-43.

Cho, K., Schunn, C. & Wilson, R.W. (2006). Validity and reliability of scaffolded peer assessment of writing from instructor and student perspectives. This study investigated the validity and reliability of peer-generated writing scores for 708 students in 16 courses at four universities. Students were given guidelines for peer assessment as well as rubrics. The results suggest that the rating of four to six peers is both reliable and valid when the appropriate scaffolds of peer assessment instruction and rubrics are in place for student reviewers. Journal of Educational Psychology, 98(4), 891-901.
2.5 THE WRITING PROCESS ENHANCES THE LEARNING PROCESS IN THE CONTENT AREAS

Williams, K.M. (2003). Writing about the problem-solving process to improve problem-solving performances. Since research points to the importance of heuristics to improve problem solving and further research points out that students can organize thought processes about mathematics better by writing about them, this author tested the effects of writing about mathematical problem solving. Williams found that students who wrote about their problem-solving process helped students move through the process more quickly and improved their understanding of the process. Mathematics Teacher, 96(3), 185-188.

Newell, G. E. (1984). Learning from writing in two content areas: A case study/protocol analysis. The purposes of this study were to determine empirically whether writing can enhance subject knowledge in science and social science, measuring recall, application, and passage-specific knowledge. Data from this study shows that essay writing when compared to note-taking and study questions caused more writing and learning. Research in the Teaching of English, 18(3), 265-287.

2.6 WRITING WITH TECHNOLOGY CAN ENHANCE STUDENT WRITING


Yang, J.C., Ko, H.W. & Chung, I. L. (2005). Web-based interactive writing environment: development and evaluation. A web-based writing environment in which students submitted multiple writing tasks, engaged in discussion boards, and reviewed one another’s writing online proved to improve elementary school student writing. This web-based environment included peer assessment and revealed that elementary students were capable of assessing peer work equivalent to an expert reviewer with a given criteria or rubric. Educational Technology & Society, 8(2), 214-229.