What Influences Faculty to Assign Writing?

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To address faculty concerns about the quality of student writing in their disciplines, we wanted to learn which factors influence faculty to assign – or not assign – writing in their courses. We designed several faculty surveys to identify variables that impact faculty intentions to assign writing, anticipating that if we could influence faculty to assign more writing throughout the curriculum, writing would improve.

We adopted the reasoned action approach, or TRA, from the field of psychology. Originating as the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975; Fishbein, 1980), TRA is based on the established premise that people perform behaviors that they intend to perform and do not perform behaviors they intend not to perform (Ajzen & Fishbein, 1977; Wong & Sheth, 1985). Ajzen (1988; 1991) later suggested that there may be complications, depending on whether a specific behavior is under an individual's own control. For example, if the curriculum for a course is standardized across course sections, instructors may not believe it is within their control to select the textbook for their own sections. To deal with issues related to control, Ajzen developed the notion of perceived behavioral control, which acts as a proxy for actual control. To further explain we can amplify the example above: Instructors may perceive that they cannot require or use a different textbook in their course, though in fact they could require it in addition to the standardized text.

Further research by Trafimow, Sheeran, Conner, and Finlay (2002) showed that perceived behavioral control actually is an amalgamation of two variables: perceived control and perceived difficulty. Perceived control refers to the extent to which people believe the behavior is under their control whereas perceived difficulty refers to the extent to which people believe that the behavior would be difficult to perform. Although these often go together, which is why both are used in traditional measures of perceived behavioral control, Trafimow et al. (2002) showed that they do not always go together. In fact, it is possible to perform experimental manipulations that influence perceived difficulty without influencing perceived control, and to influence perceived control without influencing perceived difficulty. In our study, we disentangled perceived control from perceived difficulty. With respect to the issue of faculty assigning writing, whether a teacher believes that assigning writing is under her control may or may not be a different matter from whether the teacher believes that assigning writing is difficult.

To further ensure optimal understanding of influential variables, we also measured attitudes and subjective norms. Attitudes are people's evaluations of behavior. In this study, attitude reflects how positively or negatively faculty view assigning writing in their classes. Alternatively, subjective norms reflect people's perceptions about what others who are important to them think they should do. Note that, for subjective norms, what is important is not what others actually think, but what subjects believe others think. If I identify my department head as an "important other," then what I believe he or she thinks about assigning writing contributes to my subjective norms. Important others could include colleagues, students, and perhaps even friends or family members.

Because research bears out that there is high correlation between intended and actual behavior, and because we could not directly observe and measure actual behavior, our first study was designed to identify faculty behavioral intentions (hereafter, intentions) to assign writing.

Study 1 first determined which of the four main variables – attitude, subjective norms, perceived control, and perceived difficulty – best predicted faculty intentions to assign writing and, second, obtained a list of relevant beliefs for each of the variables, which were then used in Study 2. Study 2, in turn, first investigated open-ended beliefs obtained in Study 1 to find out which beliefs best predict intentions to assign writing and, second, identified which beliefs should be the focus of interventions intended to increase faculty intentions to assign writing.

Faculty Writing Survey – Study 1

Study 1 involved the development of a faculty survey. Careful attention was given to measurement issues, including using the principle of correspondence, which states that all items should match with respect to an

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action, target, context, and time. In addition, because reliability sets an upper limit on validity, we insisted on measures that would maximize reliability. Thus, we included four items for measuring each construct, each designed to maximize inter-item correlations. This made for a repetitive survey, but provided the needed reliability. To prevent frustration and participants exiting the survey prematurely, we told them up front that the survey might seem repetitive, but there was research behind the design and we begged for their indulgence. Fortunately, we secured fifty-two complete responses from a pool of just over 3,000 faculty. Survey participants included faculty recruited through teaching workshops and an NMSU email list. All participants taught at least one face-to-face class (not online) during the semester in question.

We were vindicated in our efforts to secure high reliability measures; reliability for the four constructs ranged between .93 and .99. Correlations indicated that attitudes and perceived difficulty were the best predictors of intentions to assign writing ($r = .65$, $p < .001$ and $r = .43$, $p < .01$, respectively). The attitude-intention correlation alone accounted for 42% of the variance in intentions, and multiple correlations with all variables only accounted for an additional 4% of variance – not a statistically significant increase.

To analyze open-response questions regarding positive and negative beliefs about and consequences of assigning writing, we created four tables – one for each of the four constructs – and sorted all beliefs submitted by participants among those tables. Two types of negative beliefs emerged on three of the four tables: Time and difficulty involved with grading writing assignments were considered to be a) disadvantages, b) factors that place assigning writing in their classes beyond their control, and c) factors that make it difficult to require writing in their classes. Essentially all beliefs about writing were widely endorsed by participants.

Faculty Writing Survey – Study 2
The goals of Study 2 were to garner a larger participant sample, cross-validate that attitudes and perceived difficulty predict intentions, and capitalize on the information gained in Study 1 about beliefs pertaining to attitudes and perceived difficulty. Specifically, in this study we assessed the ability of individual beliefs to predict intentions so that we could identify the beliefs that would be the best candidates for intervention. Recruitment was similar to Study 1. We obtained a sample of 113, with 107 participants completing all measures. This survey was much shorter than in Study 1, as we eliminated some of the questions and constructs based on earlier findings. We also added closed-ended questions that were developed from the responses elicited from the open-ended questions in Study 1.

Attitude-related questions focused on consequences of assigning writing and evaluation of how good or bad the consequences would be, if they did indeed happen. For example, if a participant believed a particular consequence to be extremely likely to occur (scaled "extremely unlikely" to "extremely likely"), they could then evaluate the consequence as either positive or negative (scaled "extremely bad" to "extremely good"). Belief-evaluation pairs were used to predict attitudes and, eventually, intentions to assign writing. Additional questions pertained to perceived difficulty and the extent to which different variables made it easy or difficult to assign writing (scaled "extremely difficult" to "extremely easy"). We tested the extent to which difficulty beliefs predicted both perceived difficulty and intentions to assign writing.

Reliability scores from this study were similar to those in Study 1, ranging from .87 (perceived difficulty) to .99 (behavioral intentions), with attitudes at .95. In this study, the efficacy of attitudes and perceived difficulty as significant predictors of intentions was reversed from Study 1. Still, the multiple correlation of attitudes and perceived difficulty to predict behavioral intentions was strong ($R=.65$). Furthermore, correlations among belief and evaluation product scores and intentions resulted in the following significant correlations ($p < .05$ in all cases):

- Increase student learning ($r = .56$)
- Increase critical thinking ($r = .54$)

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- Increase ability to communicate (r = .46)
- Increase students' ability to apply what is learned in class (r = .51)
- Increase students' reflection on course material (r = .48)
- Aid in assessment of student learning (r = .47)

Relevant significant correlations between perceived difficulty beliefs and behavioral intentions included the following (p < .05 in all cases):

- Having control over structure of the course (r = .49)
- Belief that it is good for the students (r = .64)

Multiple regression including all belief-evaluation products and difficulty beliefs to predict intentions to assign writing resulted in R = .77 (R^2 = .59, p < .001)– an impressive value for this type of research.

We identified the belief that assigning writing is "good for the student" as the best predictor of intention to assign writing, accounting for 41% of the variance in intention to assign writing. Multiple correlation calculations suggest that 59% of the variance can be accounted for by using all of the beliefs, meaning an additional 18% of variance can be exploited by using all of the beliefs instead of just the top predictor. We emphasize that most of the beliefs that were good predictors of intention pertained to ways in which writing is good for students.

We believe there is a reasonable explanation of the reversal of the relative contribution of attitudes and perceived difficulty from Study 1 to Study 2. The belief that assigning writing is good for students was listed as a factor that makes assigning writing easier — that is, a perceived difficulty item — but it also can be thought of as a positive consequence of writing, which would render it an attitude item. Although Trafimow and Duran (1998) have shown that attitudes and perceived difficulty are different concepts, in general, our suspicion is that there is some overlap between them with respect to the issue of assigning writing.

From our findings, we conclude that one could increase the frequency at which writing is assigned by convincing faculty that writing is good for students. In addition, although our research does not bear out that time and difficulty are strong influences on faculty intentions to assign writing, we have found that the rhetoric faculty use in their arguments against assigning writing includes these factors. For that reason, administrators may find research by Elbow (1994, 1997) useful. Elbow explores ways to assign writing that do not involve a large amount of time and effort adds to our optimism. For example, Elbow (1994) suggests low-stakes writing-to-learn exercises such as 8 minutes of free writing at the beginning of class to help students focus and/or 5 minutes of free writing at the end of class to consolidate course material. Such writing does not require extensive feedback; Elbow recommends a straightforward and efficient system of putting straight lines next to strong passages, wavy lines next to passages that need work, and X's next to flat-out mistakes. Such approaches explicitly address the top two disadvantages that Study 1 participants identified with regard to assigning writing: "grading papers is time-consuming" and "a great deal of effort is required to give useful feedback."

Intervention Strategies

Our findings provide a direction for designing a successful intervention, and also testify to faculty's authentic concern for the good of their students. That is, if we want faculty to assign more writing, we need to convince them that more writing ultimately benefits the student. Such an argument is on solid ground, given the significant body of research on the benefits of writing for students—see Arum and Roksa (2011)'s claim that many students fail to improve in critical thinking and writing over four years in college partially because they have not done enough reading and writing, as well as Christopher and Walter, 2006; Connor-Greene, 2000; Drabick et al., 2007; Marek et al., 2005; Nevid, Pastva and McCelland, 2012; and Stewart et al., 2010. The same body of research shows that such an intervention should be worthwhile.

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Moreover, we have strong evidence to support intervening at the level of several beliefs rather than with a single belief. Several of the significant correlations related to beliefs about the potential favorable impacts of assigning writing, are directly related to a broader notion about what is good for the student. For example, faculty indicated that if assigning writing did indeed increase student learning, critical thinking, and students' reflection on course material, this would be a good thing. Angelo (1995) and others (Blake, 2005; Dunn & Smith, 2008; Mills, 2008; O'Connell & Dyment, 2006; Tsui, 1999; 2002; Wade, 1995) all contend that writing does indeed positively impact learning, thinking, and reflection. Convincing faculty about the benefits of writing to students should induce them to include more writing in their courses.

Conclusion

Research supports the premise that increasing frequency of writing improves writing. Moreover, writing functions as a unique "mode" of learning (Emig, 1977; Wiley & Voss, 1996; McLeod, 1992; Spivey, 1990). Specifically, findings show that writing-to-learn facilitates critical thinking and acquisition of disciplinary concepts (Christopher & Walter, 2006; Connor-Greene, 2000; Tsui, 2002). Many, including Nevid and Colleagues (2012), conclude that writing assignments need not be overly burdensome or time-consuming to faculty to be valuable to students.

While most faculty are generally inclined to acknowledge the importance of writing, many of them do not assign writing in their courses. Attitudes and perceived difficulty emerge in our analysis as the most important predictors of whether faculty assign writing. Based on our findings, we suggest that improving faculty appreciation of the benefits of writing, while lowering perceived difficulty, would result in more writing being assigned and considerable benefit to students.

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