

Checkpoint 2

Maddie Mihevc, Jackie Clotfelter, Bear Zietz, Aj Arroyo

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1 Literature Review

The article “Getting the Message Across: the problem of communicating assessment feedback” by Richard Higgins, Peter Hartley Alan Skelton, focuses on the how students react to different feedback methods and the best components to consider when providing feedback. The article begins referencing a study by Kathryn Ecclestone that concluded when a student is provided feedback from an instructor “At best, they will read a response to their work only when it provides ‘correct answers’ for the exam”[1]. They claim that in order for feedback to become an integral part of the learning process, closer attention must be paid to “feedback as a process of communication”[1]. The study explains how when a student is presented with feedback in the incorrect way they experience negative changes in “emotion, identity, power, authority, subjectivity and discourse”[1]. Principles in communication affect the way feedback is interpreted and received; in this study they found the most important principles to be the timeliness of feedback, specifying the nature and extent of feedback, relating feedback to published assessment criteria, and how the language of assessment and study should normally be the same[1].

The article “The efficacy of a targeted personalized drinking feedback intervention among intercollegiate athletes: A randomized controlled trial,” discusses a study involving student athletes and personalized drinking feedback. The purpose of this study was to compare the results of sending personalized drinking feedback targeted towards athletes and personalized drinking feedback not targeted toward athletes. This study found that participants receiving the targeted personalized drinking feedback recorded lower

The article “Rethinking feedback practices in higher education: a peer review perspective”, discusses the differences between students receiving feedback from peers and students receiving feedback from professors. According to this article, “A number of learning benefits have been identified in relation to the receipt of feedback reviews from peers”[3]. When students receive research from peers, they often perceive it as more understandable because the language is more accessible. Additionally, the recent effort put into enhancing professors’ feedback has not shown an enhanced learning experience among students[number]. Although we are not in the CS 150 class, we are peers as undergraduates, and we

will be the ones explaining the study to these students, so they may perceive us as the ones providing feedback. When this feedback is personalized, it may help more than that of a professor.

In the article *Formative Feedback: Involving Students as Partners in Assessment to Enhance Learning* the author talks about the importance of involving students in the feedback process. The author explains how, “formative feedback furthers student learning as the student engages in a continuous loop of self-assessment based on particular criteria.” This is important because when students are involved in the feedback process they are forced to frequently assess themselves and how well they are performing. The research that was conducted in the research article is beneficial to our research because it provides a clearer understanding of the best formats through which students receive feedback.

2 Citations for Literature Review

[1]A. Skelton P. Hartley, R. Higgins, “Getting the Message Across: The problem of communicating assessment feedback,” *Teaching in Higher Education*, vol. 6, no. 2, 2001. [Online]. Available: <https://doi.org/10.1080/13562510120045230>. [Accessed March. 3, 2020]

D. Nicol. A. Thomson. C. Breslin, “Rethinking feedback practices in higher education: a peer review perspective,” *Assessment & Evaluation in Higher Education*, vol. 39, no. 1, 2014.[Online]. Available: <https://www.tandfonline.com/doi/full/10.1080/02602938.2014.911111>

Jarene Fluckiger, Yvonne Tixier y Vigil, Rebecca Pasco Kathy Danielson (2010) ”Formative Feedback: Involving Students as Partners in Assessment to Enhance Learning”, *College Teaching*, 58:4, 136-140, DOI: 10.1080/87567555.2010.484031

Martens, M., Kilmer, J., Beck, N., Zamboanga, “The efficacy of a targeted personalized drinking feedback intervention among intercollegiate athletes: A randomized controlled trial,” *Psychology of Addictive Behaviors*, 24(4), 660–669, 2010. [Online]. Available: <https://doi.org/10.1037/a0020299>

3 Idea of Prototype

Our prototype consists of a model-view-controller software design pattern. Our model is a collection of Kotlin objects that are initially populated with student test data from a CSV database. We are using three Kotlin objects(student, course, campaign) to structure our data and run our experiment. The view component will be an email, either personalized or general, containing links to resources. The controller will track the clicks on these links and update our database.

4 Early Draft Design of Experiment

In our experiment we want to discover whether or not a student benefits more from receiving a personalized email or generic email that is based on a students

exam performance. The variables we are manipulating in this experience is the email format that we are sending to the student and we are measuring how often the student clicks on the links provided and how quickly they click on the links after the emails are sent out. We will have about 120 participants in this experiment, however the students have the option to opt out at any time if they do not want to be included in our research. A letter of withdrawal will be provided to all of the students if they decide to opt out but all of the students will be automatically enrolled in our research until we learn that they do not want to be a part of it. We believe that students who are sent a more personalized email are more likely to interact with the helpful resources provided because it adds the notion that the TAs care about their education and what to seem them succeed in the areas they are struggling in.

The process for our research will be set up as follows. Before any emails are sent out and any data is collected we will inform CS150 of the research we plan to conduct and the format of the data we plan on collecting. All of the data we collect will be completely anonymized so the student name will not be traced back to the student. After the second and third exams in CS 150 we will send out an email to the students who did not opt out of being a part of our research. The class will randomly be split into two groups. One group will receive an personalized email that is based on the outcomes that they struggled with on the exam. We will provide them with a series of links that mirror the topics the student struggled with on the exam. The other group will receive a more generalized email that contains links to all of the topics that were covered on the exam. Once emails are sent out we will track what links students click on, when students click on the link, and how many times they click on the link. With this data we hope to discover what format students respond the most positively to and what links they find to most helpful. This information will provide us with important information on how to best provide students with helpful resources in the future.