ABSTRACT

This chapter emphasizes online tools and techniques for capturing instantaneous electronic student feedback, sustainable online teacher monitoring of student feedback, and on-demand teacher access to spreadsheet data for analysis. This chapter presents muddiest point feedback data as described in Mosteller as a possible avenue for effectively and efficiently capturing points of confusion of online students. Traditional methods for feedback collection involve gathering feedback at fixed intervals in the semester that are limited by the on-campus class time interval or are paper-based. The method of this chapter involves collecting feedback via an online form situated in the cloud. The online teacher can then access and assess the feedback data at regular intervals as the teacher’s schedule permits from any computer or mobile device thereby saving valuable time. The chapter focuses on online tools and techniques for: Google Drive™ cloud-based forms, Google Drive™ cloud-based spreadsheets, and sustainable monitoring of online student responses.

INTRODUCTION

Teaching is an iterative process of maximizing learning for the individual student and of maximizing learning ideally for the class as a whole. In spite of very best efforts, sometimes a teacher’s lesson does not resonate well with particular students. When a teacher is aware of the student’s gap in knowledge early, he or she can intervene with various pedagogical techniques to help address the gap; however, when gaps in knowledge linger, this does not favor student success in the course. Often classes rely on periodic self-reporting from a student who is having trouble and that feedback comes at a time when it is too late for the teacher to intervene. A process that more frequently allows a student to check-in also provides greater opportunities for teacher intervention. Tinto (2012) has shown success implementing early alert protocols to help the student who is struggling. In online classes an early window of inter-
vention is particularly important. Online teaching environments do not offer the teacher the benefit of student body language and reactions in the lesson to get a feel for how well the concepts are registering. As such, figuring out student points of confusion in online classes requires approaches that integrate well into the online environment.

The goals of this chapter are to:

1. Introduce the reader to online tools and techniques for efficiently gathering frequent student points of confusion in online classes.
2. Explain how Google Drive™ cloud-based forms and Google Drive™ cloud-based spreadsheets can streamline the process for teachers.
3. Suggest methods that the online teacher can use to customize the online form to meet specific teaching styles.

By the end of this chapter, readers will better understand how to effectively utilize these tools to create a sustainable process; thus, increasing instructor productivity and efficiency.

Tools and Techniques for the Online Environment

Mosteller (1989) dubbed a student’s point of confusion as a “muddiest point”, and developed a teaching assessment technique to help collect responses from students. This technique allows students to communicate what they are having trouble understanding, ideally during a physical class lecture. Traditional applications of the Mosteller (1989) method involve collecting the feedback data on paper and within a physical class situation. Other applications utilize personal feedback devices to get the live response data, but again limit gathering that response data to the physical classroom (King 2011; King 2014). In online classes, it is also essential to collect the muddiest point feedback data in a way that streamlines the process for the teacher. Accordingly, the author applies the same questions to the online class lecture, lesson, or unit using Google Drive™ cloud-based forms and Google Drive™ cloud-based spreadsheets. The objective is to achieve sustainable monitoring of online student responses. This means building an online form to collect the data, and capturing that data via a cloud-based service, which automatically places the data in spreadsheet form.

Mosteller’s (1989) muddiest point teaching assessment technique has shown great promise for capturing student points of confusion within the author’s online classes. Using this method the instructor creates 3 questions that are embedded at the end of every lesson in the author’s online classes via a link to an online form. The 3 questions are specifically defined in Mosteller (1989), and remain the same within the online form. Students are allowed to post answers to these questions as often as they like, but are required to post a response at least once in each lesson. Upon submission, the author performs regular review of this feedback data in order to ascertain individual areas of confusion. Assessing the data also allows for assessment of overall student points of confusion related to the materials. Collecting the data in this way streamlines the process for the teacher. Rather than spending valuable time collecting the response data, more valuable time can be spent analyzing the response data. Students initiate responses to the 3 questions via the link to the online form, and instructors evaluate the data as time permits.