

Chapter 14

Using the WebQuest Approach to Elicit Student Engagement in a University Course: A Case Study

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ABSTRACT

Following a realization that first year undergraduate students at a private university in Ghana engaged very minimally in their learning processes, and consequently obtained very weak grades in their courses, this study adopted a qualitative research approach to investigate whether the integration of a WebQuest into the learning processes can help foster student engagement through interactivity, and thus improve learning outcomes. Five students and one instructor participated in the study, and over the course of one academic semester, teaching and learning processes were varied by introducing WebQuest-based learning. Data were gathered by observing student activities as they engaged in the learning processes, and also assessing student learning and satisfaction by looking at student grades and also administering a survey questionnaire to students. Findings indicate that educational technologies such as the WebQuest can potentially foster student engagement in learning and also help improve learning outcomes. Implications of these findings are discussed.

INTRODUCTION

Overview

In the educational setting, the concept of student engagement is a multifaceted construct (E. Chapman, 2003), and has therefore been defined and categorized severally by various researchers and

educators. Notable categories include: Academic Engagement, i.e. student's willingness, need, desire and compulsion to participate in, and be successful in, the learning processes (Zekpe & Leach, 2010), Psychological Engagement, i.e. willingness to participate in routine school activities, such as attending classes, submitting required work, and following teachers' directions (Natriello,

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1984), Behavioral Engagement, i.e. involvement in learning activities accompanied by a positive emotional tone (Skinner & Belmont, 1993), and Cognitive Engagement i.e. students' use of cognitive, meta-cognitive and self-regulatory strategies to monitor and guide their learning processes (Pintrich & Schrauben, 1992).

However, regardless of whichever perspective being considered, the consensus emerging from research works is that engagement simply represents participation in any enterprise by self-investing personal resources, such as time, physical energy, and cognitive power (Lehmann, Lalmas, Yom-Tov, & Dupret, 2012; Ponciano & Brasileiro, 2014). Unsurprisingly, studies have generally established a positive correlation between some or all of the aforementioned aspects of student engagement, and school achievement parameters such as student grades, class attendance, school completion, participation in school and extracurricular activities etc. (House & Telese., 2015; Junco, Heiberger, & Loken, 2011; Martin & Mullis, 2013). The reverse has also been proven to be the case, i.e. student disengagement or disaffection with school leads to low participation in learning activities, weak grades, cheating in tests, low enthusiasm for school related activities and possibly drop out (Chapman, 2003; Vekkaila, Pyhalto, & Lonka, 2013).

The foregoing exposition points to the need for educational institutions and all other stakeholders to create programmes and conditions that will help increase student engagement, and thereby increase the chances that students will attain the desired outcomes of a college education (Kuh, 2009). This chapter discusses an empirical study that investigated the potential of one such initiative - the WebQuest - to foster undergraduate students' engagement in their learning activities, and the accompanying learning outcomes, in a Ghanaian university. The chapter first discusses the motivation for the study, the theoretical underpinnings of WebQuest based learning, and related research on the subject. This is followed by a detailed description of the WebQuest imple-

mentation processes, the learning activities and outcomes, and concludes with lessons learnt and recommendations for further work in this field.

Motivation and Objectives

Over the years, schools all over the world, particularly higher education institutions, have been striving to implement strategies aimed at fostering all aspects of student engagement (Blithe, Carrera, & Medaille, 2015; Remis, 2015). On the part of instructors, such strategies largely involved varying the traditional lecture approach and other models of instruction, to include more learner-centered activities such as collaborative problem solving, interactive lectures, project-based learning, flipped teaching, digital storytelling etc. - all of which have been demonstrated to have positive effects on engagement (McLaughlin, Gharkholonarehe, Khanova, Deyo, & Rodgers, 2015; Sankey & Hunt, 2014). [As a matter of fact, in countries such as the USA, a teacher's ability to effectively foster student engagement is being considered to be made an element of teacher certification, and an essential component of teacher preparation curricula (Cook-Sather, 2002)].

It is common knowledge that implementing some of the above mentioned initiatives so as to promote effective student engagement in academic related activities requires a significant transformation of the traditional teacher-centered face-to-face classroom lecture model to more student-centered, flexible learning models. Prior to the 1990s, achieving this transformation was quite a challenge to institutions and instructors due mostly to logistical, structural and policy issues including large student numbers, budgetary cutbacks, the need to prepare students for standardised tests etc. However, the advent of Information and Communication Technologies (ICTs) - notably the Internet, World Wide Web, mobile wireless devices and powerful educational software programs - is now providing teachers the opportunity to facilitate the development of more

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