Academic Success Centers: Improving Resource Utilization using Grounded Theory Methodology

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Abstract

This project addresses the current utilization of services and practices at an Academic Success Center (ASC) in large urban research university in the Midwest. The methods of data collection for this project were through observations and interviews. Two ASC employees who are also students of the University were selected for interviews. For data analysis, word categories were generated using Enterprise Control Language (ECL) in HPCC Systems®. Open coding, axial coding and selective coding in grounded theory methodology were explored to formulate effective interventions that would ensure the maximal use of available resources at the ASC.

Statement

For the purpose of this study, an Academic Success Center (ASC) in a large urban research university in the Midwest was chosen. This ASC was established to ensure all the university students become self-determined, motivated, and independent learners, accomplished through instruction and services that support students' development of skills to achieve academic excellence (Participant A). Services offered include tutoring, Supplemental Instruction (SI) and study skills counseling. SI is an educational intervention program that emphasizes learning strategies and critical-thinking skills, proactively targeting known high-risk courses and employing collaborative learning techniques (Jones & Fields, 2001). At this ASC however, student and faculty outreach is suboptimal and the utilization of tutors' time is about 40% of total available tutoring time (Participant A). Instructors/tutors underutilize available technology because no formal arrangements are in place to train the tutors and SI leaders on the available instructional tools which include WIMBA, ECHO and Blackboard. A vast majority of students do not live on campus and a significant number of students work one or more jobs to survive (Participant B). This demographic characteristic poses a challenge for the utilization of the ASC's services. In summary, this ASC's performance gap results from the underutilization of its services.

Purpose

This poster proposal addresses the current utilization of services and practices at an Academic Success Center in large urban research university in the Midwest. Interventions to maximally utilize the services offered at the ASC are proposed using grounded theory methodology approach.

Literature Review

SI was developed in the late 1970s though many institutions still do not realize the academic benefits (Vorozhbit, 2012). Analysis of data collected at a large public research university showed that SI-participants had higher final course grades than non-participants despite having lower ACT scores than non-participants and the final course grade was also positively correlated with the number of SI-sessions attended (Vorozhbit, 2012).

Technology intervention is the process of optimally improving teaching and learning using technology (Whitehead, Jensen, & Boschee, 2013). Technology is a tool that can help facilitate and heighten relationships or connectivity among the student, the teacher and the learning process (Whitehead et al., 2013). For a technology intervention to improve education, it needs to be aligned with the seven principles for good practice in education (Chickering & Gamson, 2001). These principles are: encourage contact between students and faculty, develop reciprocity and cooperation among students, encourage active learning, give prompt feedback, emphasize time on task, communicate high expectations, and respect diverse talents and ways of learning (Chickering & Gamson, 2001).

Learning management systems (LMS) have been shown to improve classroom teaching (Mulroney, Whitney & Myers, 2015). Examples of LMS are WIMBA, ECHO and Blackboard. Course support tools can be customized to meet the needs of instructors and tutors, including communicating, and making announcements (Gibson, Buche, & Waite, 2008). Educators today are striving to improve teaching and learning through the power of technology (Davidson & Maurer, 1995). However, for change to be effective, factors such as training, support, and time also need to be addressed simultaneously.

Methodology

The methods of data collection for this project were through observations and interviews. Two ASC employees (Participant A and Participant B) who are also students of the University were selected for interviews. For data analysis, open coding, axial coding and selective coding in grounded theory methodology (Strauss & Corbin, 1994) were explored to formulate effective interventions that would ensure the maximal use of available resources at the ASC. This large urban university is a very diverse community, racially, economically, academically, and age-wise (Participant B). The student population is over 18,000 undergraduate students and approximately 7,200 graduate students with about 35% of its undergraduate population being minorities (Institution, 2015). There are academically prepared students and quite a few students who are not prepared for the rigors of a college education (Participant A). There are also non-traditional students in terms of age, with 5% of the undergraduate and 14% of the graduate population between 40-64 years (Institution, 2015).

Unstructured data in the form of interview transcripts were analyzed. Grounded theory methodology, a form of qualitative data analysis was used. There are three stages of analysis-open coding, axial coding and selective coding (Strauss & Corbin, 1994). Codes were first created from the participants' answers (open coding) then categories were created from the codes (axial coding) followed by a determination of connections between the codes (selective coding). Word categories were generated using ECL in HPCC Systems® (Chapman, 2014).

Findings

After analyzing the collected data, the following interventions were recommended to address the ASC's performance gap. These were placed into the following coded categories:

Online tutoring, training of SI leaders/tutors, advertisements, website updates, automated registration message, notifications and walk-in services. Advertisements, website updates, automated registration message and notifications were then further categorized as web services. Figure 1 shows the recommended solutions to the performance gap with respect to the connections and final categories based on grounded theory methodology while figure 2 shows a visual representation of the initial categories.

The addition of online tutoring services and webinars would serve those unable to meet on campus at regular office hours. Formal training of SI leaders/tutors in the use of the instructional technology tools should be carried out at the beginning of each semester. Advertisements of the ASC's services should be performed using the existing technological resources of the institution. The ASC's website and app should be updated to be more effective in appointment scheduling and advertising. An automatically generated email and a pop-up alert should be developed that are activated during registration for a course that has tutoring/SI support which informs the student about the ASC's services. In addition, email or push notifications should be incorporated that alert interested students about an open slot after a cancellation. Finally, walk-in services should be offered in addition to the fixed schedule system.

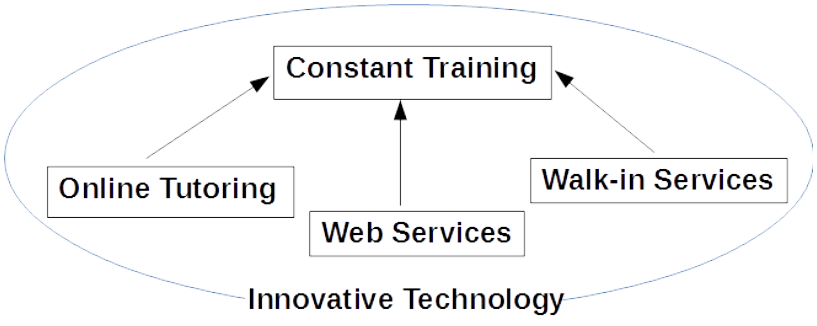

Figure1: Summary of results.

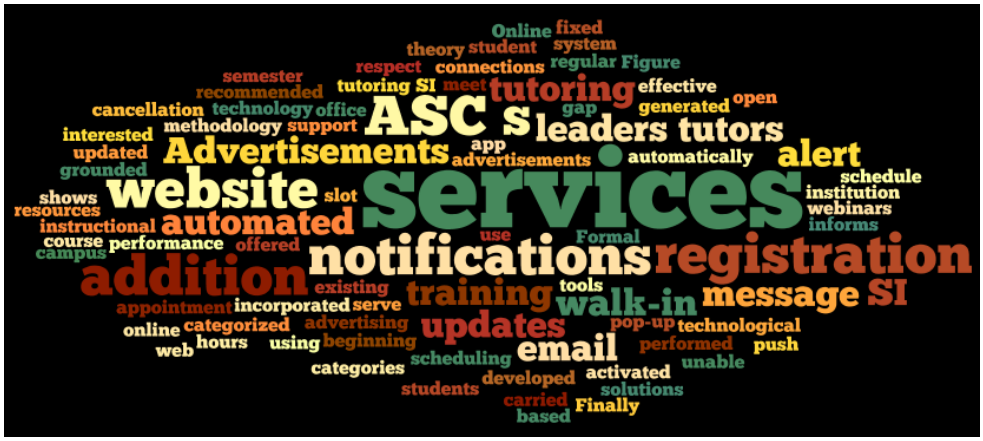

Figure 2: Representation of initial categories.

Implications

If all the proposed recommendations are implemented, there should be a significant increase in the demand for the services at the ASC leading to maximal utilization of resources Technology in education is important as it helps to improve the economy in the long term by saving cost, time and making more efficient use of resources. A carefully designed evaluation is needed to establish the effectiveness of these interventions. The maximal and efficient utilization of the ASC's services would be of benefit to all stakeholders, especially the students for whom it was established, helping them to become self-determined, motivated, independent learners, achieving success in their academic and life endeavors.

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