Survey of Engineering Students’ Use of Internet

Radha M. Parikh, Dhirubhai Ambani Institute of Information & Communication Technology, Gandhinagar, India

ABSTRACT

There is a lot of discussion on the effect of computers and Internet on students’ academic performance but few in the context of the Indian scenario. Hence a study was conducted, of two groups of private engineering university students (345 respondents from each university). They were surveyed by administering online questionnaires, following a smaller pilot study to fine-tune the survey instrument. The main purpose of the research was to understand student behaviors related to time spent on computers and their relationship to academic performance. The data indicates that there is a correlation between academic performance and excessive use of Internet. The impact of faculty/student interaction and its relationship to academic performance needs further exploration.

Keywords: Academic Performance, Engineering, Engineering Students, Internet, Student Behaviors

INTRODUCTION

All over the world a topic of concern among educators is the low motivation, absenteeism, poor academic performance and high attrition rate of students in higher education programs. At any given time at least one-third of the students are absent from their class rooms – anywhere between 20 to 40 per cent (Wyatt, 1992). On the other hand, positive student-teacher relationships that are mutually respectful and supportive appear to result in improved attendance and academic performance (Pendergast & Bahr, 2006). In the prevailing educational scenario, excessive use of computers is another related factor that weakens students’ academic performance. The availability of free high-speed internet facility to most university students has been attributed to result in addictive behaviors by some even leading to psychological disorders (Yellowlees & Marks, 2007).

The purpose of this descriptive study is to examine student behaviors aimed at observing the correlations between students’ interaction with faculty, their use of computers for non-academic purposes and their academic performance. It was also intended to examine students’ family background to study if there is any association with their academic performance.

Consequently, the impact of the following factors related to students’ academic performance was addressed in this study:

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1. Time spent on playing computer games;
2. Time spent on watching movies and on chatting on Social Networking Sites (SNS);
3. Faculty-student interactions;
4. Absenteeism from class;
5. Parents’ educational background.

To get a realistic picture of time spent on playing computer games, two factors were examined – that of self-report and the other on observing a friend or room-mate’s use of computers and Internet for various purposes and to relate the two to avoid bias.

**REVIEW OF LITERATURE**

A critical issue that affects student learning is the use of computers and internet for non-academic purpose. Excessive use of computers (by 72 per cent males) was found to interfere with students’ behaviors and academic performance (Anderson, 2010). The usual consequence of excessive use of Internet is increase in negative characteristics like low self-esteem, motivation, and loneliness. It was also found that time spent on web-surfing was mostly on non-academic activities. The internet allows students to assume an alternate identity on social networking sites, and lose touch with reality (Hardie, 2007). This appears to be an alternate incentive for students with low social skills or low self-esteem to assume the identity of who they would really like to be and interact with others who they cannot see face to face, on the web in their virtual identities, when unable to do so in real life. There are both advantages which are numerous and well-documented, and disadvantages to such a situation; e.g. losing touch with reality.

The main objective of technology is to extend human capability. The 21st century has seen a new development and hence a new culture in online learning: MOOC (Massive Open Online Courses) aimed at reaching the masses through an interactive learning experience where the benefits are many (Lewin, 2013). While it is a great social learning experience being part of a school without classrooms, there are some perceived problems. It is possible to make a lot of friends which is useful for doing group projects and assignments; or there could be some students who may not be able to find anyone to form a group, or become part of a group and thus struggle to complete the project or assignment. This difficulty is addressed partly by the facilitator or tutors attached to the course, who may allot students functioning alone to specific groups. But that’s not always a feasible solution. A group that evolves naturally may function better than a randomly allotted group. However, considering the issue of shortage of trained faculty and increasing class sizes, MOOCs may become more prevalent over the years.

Discussions related to student behaviors and their academic performance in large classrooms with low faculty- high student ratios continue to prevail around the world in higher education settings (Nyampfene, 2010). Literature on faculty-student interaction indicates that frequency and quality of relationships with faculty have a positive impact on grade point average and, despite their reluctance to initiate contact with faculty interaction with faculty is a strong predictor of student learning for all students (Lundberg & Schreiner, 2004). Another longstanding research study documents the positive influence of informal faculty-student interactions on student success (Murray & Malmgreen, 2005). It is clear that faculty members play an important role in the social and academic integration of students (Chickering, 1969). Umbach & Wawrzynski (2012) examined two national data sets from a massive study: a survey of students from 137 schools (20,226 senior students and 22,033 first-year students who completed the National Survey of Student Engagement in spring 2003) and compared it with a survey of 14,336 faculty members. This survey was designed to measure faculty expectations for student engagement in educational practices that are known to be linked with high levels of learning and development. Umbach & Wawrzynski reported higher levels of student engagement and learning at institutions where faculty members interacted with students, and used active and collaborative
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