A STUDY OF FACULTY DEVELOPMENT PROGRAMS IN INDIA TO IMPROVE STUDENT ENGAGEMENT

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ABSTRACT

Student engagement refers to the degree of awareness, curiosity and interest that students show in their formal educational environment, which also reflects their motivation for learning and academic achievements. There has been lot of research about how to build a positive climate for learning, improve student curiosity, and enhance classroom association. The research findings are unambiguous. Student learning, persistence, and attainment in educational institutes are strongly associated with student engagement. In India, a project named Mission 10x has been started by an esteemed IT Corporation Wipro as a faculty development programme (FDP) that particularly focus on elements that can lead to improvement in student engagement. This paper presents a study of these FDPs and examines (1) the parameters that affect student engagement (2) the extent to which student engagement is improved after the conduct of Mission 10x FDPs, and (3) whether institutions differ in terms of their ability to convert student engagement into academic performance via these FDPs. The sample consisted of 2,236 students at 6 four-year engineering colleges and universities that completed several FDPs during 2012-2014. Many measures of student engagement were linked positively with such FDPs, although some of the relationships were weak in strength. The results suggest that the lowest-ability students were more benefitted after conducting these FDPs and application of novel approaches in conducting classes. Also, different forms of engagement are converted into academic achievement, and certain institutions convert student engagement into higher performance on critical thinking tests more effectively.

INTRODUCTION

Student engagement in the classroom is an important factor that research has reported to be critical in enhancing student achievement (Akey, 2006; Heller, Calderon, & Medrich, 2003; Garcia-Reid, Reid, & Peterson, 2005). It is not an easy term to define, yet we hear it everywhere. Students are engaged when they actively participate in classroom activities and does quality work that result in higher academic achievements (Newmann, 1986, p. 242). Therefore, teachers need a large variety of instructional strategies to engage variety of students (Garcia-Reid et al., 2005). The current research about student engagement reveals that there is a close association between students' engagement and student learning. It is observed that students learn best when they are engaged in persistent and interesting work with teachers that are dedicated to make their lectures exciting and innovative with the usage of new learning aids. These novelties in lectures make students feel a strong sense of belonging. Student engagement occurs when students make a psychological investment in learning. Students are engaged when they are occupied in their work regardless of challenges and obstacles, and feel pride in accomplishing their work. Learning tasks that engage students have peculiar features. They require and encourage critical thinking. They engross the student in disciplinary investigation. They are realistic and relevant for students. They require students to cooperate and be meaningfully involved. A number of methods have been used in the research to determine if students are engaged in their learning. Traditionally, methods have focused on behaviours such as attendance and quantitative data such as achievement and graduation rates. However, recently qualitative data is focused upon to understand engagement in learning. For example engagement can be calculated by the degree to which students classify schooling outcomes, have a sense of belonging with institute, participate in activities, and make efforts of personal investment in learning. We have also used simple rating measure of students for our preliminary investigation to reflect this qualitative data.

LITERATURE REVIEW

The more actively engaged students are with faculty and staff, with other students, with the subject matter they are studying; the more likely they are to continue their studies and achieve higher academic results. This relationship has been emphasized in a number of major studies and reports on student engagement and their learning experience, including the following:

- In *Student Engagement at School: A Sense of Belonging and Participation* (2003) Organization for Economic Co-operation and Development (OECD)
  report presents result of an international study of student engagement through the OECD Programme for International Student Assessment (PISA), in 2000.

- In *Meaningful Student Involvement: Guide to Students as partners in School Change* (2005), the the SoundOut organization which is an expert assistance program focused on promoting student voice in US and Canada focuses on promoting student voice and meaningful student involvement throughout education.

- In *Strengthening Student Engagement* (2008) International Center for Leadership in Education presents details about engagement-based learning and teaching.

- In *Reaching the Reluctant Learner: Engaged and On Track* (2008), Association for Supervision and Curriculum Development (ASCD) published articles in *Educational Leadership* on the theme of Student Engagement.

- In *Measuring Student Engagement in Upper Elementary through High School: A Description of 21 Instruments* (2011) Education Week newspaper focuses on K-12 education policy in the United States.

- In *Ten Steps to Better Student Engagement* (2011)
  Edutopia, an interactive web site contains an extensive archive of continually updated best practices related to K-12 education. It includes many diverse and innovative media resources for teachers, school leaders and parents.

- In *Community College Survey of Student Engagement (CCSSE), the Survey of Entering Student Engagement (SENSE), and the Community College Faculty Survey of Student Engagement (CCFSSE)* (2012) there are series of surveys that provides the conceptual and empirical base for the student engagement to both learning and retention. All of the surveys are particularly designed to measure the level of students' engagement.

- In *Enriching Experience: Engaging Students* (2011) Alberta Teachers' Association (ATA) published articles by the professional teachers' association in Alberta on the theme of Student Engagement.

- In The Canadian Education Association initiative, entitled *What did you do in school today*,(2008-2012) much light on student engagement through survey results with over 60,000 students has been shed. This is a latest series of reports that focus on student engagement, academic outcomes, instructional challenge and intellectual engagement.

PARAMETERS AFFECTING STUDENT ENGAGEMENT

Teachers are fundamental player in fostering student engagement (Akey, 2006; Garcia-Reid et al., 2005). Generally, they are the most influential person in student's educational experience as they work directly with the students. Teachers can foster student engagement in the classroom by developing interactive and relevant lessons and activities that can be taught by FDPs, creating a culture of achievement in their classroom, and being encouraging and helpful to students. Therefore, the development of Teacher should be the first priority before expecting student engagement in any educational Institution. This could be enhanced through FDPs. An Initiative named Mission 10x has been implemented by an esteemed IT corporation in India, Wipro that conduct FDPs across various engineering colleges in the country. This was done after Wipro conducted a survey and found that around 50% of engineering graduates passing in India were unemployable. The study of Misison 10x Project found following factors that are involved in lack of student engagement in classrooms:

LACK OF CHALLENGING ENVIRONMENT

Students are less likely to be bored and disengaged in a challenging and supportive environment (Akey, 2006). High quality lessons that are meticulous, associated with content standards, and uses the right pedagogies to meet the academic needs of all students are also important factors in promoting a culture of engagement and achievement in the classroom (Weiss & Pasley, 2004).

LACK OF RELEVANT CURRICULUM

Designing relevant programme of study have been shown to greatly increase student engagement in learning (Akey, 2006; Heller et al., 2003). Lessons and activities that depict students' background, interests, and academic needs invoke students interests.

LACK OF ENCOURAGEMENT

Several studies have found that students who expressed that their teachers were supportive were more likely to be engaged in the classroom and perform well academically (Heller et al., 2003; Akey, 2006). It is essential for teachers to "create collaborative, supportive environments with high but achievable standards" because it greatly effects students' engagement in school and learning (Akey, 2006, p. 32.)

LACK OF EXTRACURRICULAR ACTIVITIES

Participation in extracurricular activities is directly related to Student engagement in the classroom, especially among students from low-income families (Fredricks & Eccles, 2006). Participation in extracurricular activities can be very useful to the academic, social, physical, and emotional growth of students (Fredricks & Eccles, 2006).

METHODS

Our methodology has used a phenomenological approach focusing on eliciting the student voice. We have achieved this through the use of a mixed-methods approach incorporating online questionnaires nominal group technique, individual interviews and focus groups. Our sample population has covered a broad range of different student groups. At Maharishi Dayanand University, for example, the population surveyed for this current project includes Computing, Biotechnology, and Electronics students (circa 450 students). At Murthal University the whole first-year cohort was surveyed (circa 530 students). The same reflects the demographics at both institutions, a mix of first-generation entry students, mature students, students from widening participation backgrounds, commuter students, and, minority ethnic students. The demographic populations of both institutions are very diverse, which provides richness for this research. Our assumption is that all students, whatever their cultural, educational or social background, will benefit from access to the resources developed during these FDPs. Our hypothesis, being tested in this current large-scale survey undertaken at a couple of institutions, is that these FDPs will demonstrate improved self-confidence for the teachers and improved motivation for students whilst students are making the transition into educational institute.

PRELIMINARY FINDINGS AND IMPLICATIONS

Our findings indicate that students require early interventions that are well supported with a cooperating staff as well as encouraging environment that could establish their positive engagement with the educational institute. We have found that the FDPs enable teachers from all background are able to develop key skills that can make students more comfortable about their positive engagements with the institution. FDPs equipped teachers provide educational institute a friendly face that makes it more approachable and human. Feedback obtained from students demonstrates how these FDPS has changed their teachers and made them more accessible and clear with their teaching goals. This has greatly improved the environment of the educational institute. Teachers and students have reported following observations after conduction of FDPs:

OBSERVATIONS

Student engagement improvement after the conduct of mission 10x FDPS

- 'The FDPs are great as you can meet fellow teachers and share experiences'. Teacher A
- 'You've got his huge infrastructure and facilities but what you really need is people that can encourage and interact and it's made possible with FDPs'. Student A
- 'I recognize the faces before but now i know them and they know me too.' Teacher B
- 'Most of the things that related to the serious aspect of classrooms learning has been now changed with new pedagogies and new learning tools'. Student B
- 'It was good to be able to interact with teachers and get feedback from them'. Student C

Institutional difference in terms of their ability to convert student engagement into academic performance via these FDPS

- 'This FDP is great. I am so pleased that it has helped me build learning aids to talk to the new students and get to know them better'. Teacher C

- 'The students did seem a lot more self-reliant with getting themselves involved and getting going with things.' Teacher D
- 'I thought I was too old to do all this [leaning new tools for classrooms] but it's not as hard as you think and the students obviously seem to benefit from it'. Teacher E

AVERAGE RESULTS

The number of respondents while conducting survey depends on how confident you need to feel in your results. The more confident you want to be, the less of a margin of error you'd likely be willing to accept. To calculate the number of respondent's one need to take our survey, we have used the following formula,

$$\frac{N}{(1 + N * e^2)}$$

where:

N= the size of the entire population one wish to represent
e= the percentage margin of error one is willing to accept (in decimal form)
As we wish to represent 2, 00,000 and we are willing to accept a 3% margin of error, the respondents of our survey are around 2,200.

Although a full analysis of the large-scale survey cannot be presented here but briefly findings indicate:

- Engagement with the FDPs has helped teachers develop confidence about teaching aids in a newer way by developing new lesson plan with new pedagogies.
- Students felt more comfortable about learning after introduction of new tools and techniques leaned by teachers during FDPs.
- Learning activities taught during FDPs as introduced by teachers in classrooms settled nerves and allowed students to feel more confident about 'what they already know'.
- Students expressed their expectations of themselves coming to the educational institute and of the educational institute which has provided invaluable further data for analysis after teacher become more interactive once they attended these FDPs.
- Following Table and figure presents a sample data of the average rating of students of a particular class and their assessment of learning environment for them to be engaged before and after the conduction of FDPs. It clearly assesses the changes in the classroom environment after the conduct of FDPs; the ratings have positively increased in all cases, although the difference is not very significant in some cases.

Table 1.

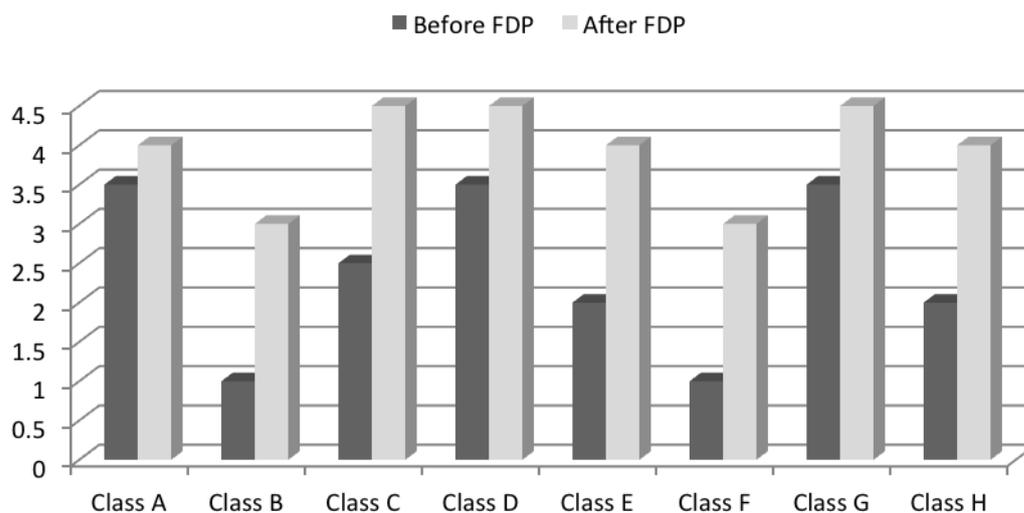| Class	Before FDP	After FDP
Class A	3.5	4
Class B	1	3
Class C	2.5	4.5
Class D	3.5	4.5
Class E	2	4
Class F	1	3
Class G	3.5	4.5
Class H	2	4

Figure 3: Average rating of students

CONCLUSION

Implementing Mission 10x FDPS workshops does not require extensive capital investment. It does, however, require the commitment of both the institution and individual staff to ensure appropriate materials are made available in a format that meets student needs as developed by these FDPs. However, the benefits to individual students appear to be significant. We propose that the burden of adjustment in the implementation of these FDPs is a shared responsibility of private and public sector where both the universities and the corporate sector can work together to improve the employability of fresh graduate which is a huge problem in a developing economy like India. The way in which both the institution and the individual teacher can make a huge contribution to the well-being of students is enormous. We believe that the model of supporting students' engagement at educational institute can be significantly aided by conducting these FDPs. These FDPs can make teacher aware of new tools and technique in classroom learning and this way they can instil the confidence that students need to provide the foundations for strong academic performance. There are many strategies that teachers and school leaders can implement to greatly enhance student engagement and motivation that can be learned through such FDPs. However, in order to be most effective in sustaining positive student engagement in learning and increasing academic performance, all of these efforts should be consistent and continual throughout the academic career of a teacher and throughout each student's educational career and for that separate FDPs are required.

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