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Student Engagement of Teacher Trainees Pursuing B.Ed. Programme

Abstract

Student engagement has been used to describe a variety of student behavior for the past forty years. Available literature on student engagement shows that student engagement constitutes 'the amount of time and effort' that a student invests into educational activities which directly lead to desired outcomes. This paper is an attempt to analyze the proportion of subjects falling into high, average and low levels of student engagement. It also tests the significance in the difference existing between the categories of sub-samples in each level of student engagement such as high, average and low levels.

Introduction

Student engagement has been used to describe a variety of student behavior for the past forty years. Available literature on student engagement shows that student engagement constitutes 'the amount of time and effort' that a student invests into educational activities which directly lead to desired outcomes (Kuh, 2001). This concept can be strengthened from the views of various researchers who studied student engagement in depth. According to Harper and Quayle (2009), "Engagement is more than involvement or participation. It requires feelings and sense making as well as activity". This is applicable for student engagement also. If the students are able to involve physically, mentally and emotionally in the process of learning, then it can be said that they are 'engaged' in learning, because through this process, the learning will become meaningful. Hence, this kind of engagement is needed in all the aspect of education especially in teacher education, because of the importance of teachers in the teaching-learning process. According to Coates (2005), "The concept of student engagement is based on the constructivist assumption that learning is influenced by how an individual participates in educationally purposeful activities. Learning is seen as a 'joint proposition', however, which also depends on institutions and staff providing students with the conditions, opportunities and expectations to become involved. However, individual learners are ultimately the agents in discussions of engagement".

What does the Literature says?

Available literature on student engagement shows that student engagement constitutes 'the amount of time and effort' that a student invests into educational activities which directly lead to desired outcomes (Kuh, 2001). This concept can be strengthened from the views of various researchers who studied Student engagement in depth. According to Hu and Kuh (2002), "Student engagement is the most important factor in student learning and personal development during college". Astin (1984) states that

Student engagement as "the degree to which students are involved in school related activities by the investments of physical and psychological energy in various objects. According to Skinner and Belmont (1993), "Student engagement is the intensity and quality of behavioral and emotional involvement during learning activities". Kohn (2001, 2009) states that "Student engagement is the amount of time and effort students invest in academic activities related to student learning outcomes".

Cross sectional researches gives a frame of multi-dimensional construct or meta-construct to student engagement. But longitudinal approaches give a slightly different frame. Cross sectional studies theorizes student engagement as a stable set of constructs which can be used to predict both proximal as well as distal outcomes. Longitudinal studies consider engagement as a dynamic synergistic process (Peck et al., 2008). These studies are based on the concepts that the Student engagement reflects a complex set of interactions and transactions with their social environment. So student engagement is not only represents a phenomenon that occurs within students, it is also posited to result from an array of social forces that exist both between and within students' social worlds (Roeser & Peck 2003). Synergistic theories of student engagement can be linked to the participation-identification and frustration/self-esteem model highlighted in the work of Jeremy Finn (1989). According to Finn (1989), "Student engagement is often fundamentally shaped by student's early school experiences. Students who develop positive outlooks toward school tend to participate more in school activities. School success is thought to be a predictable consequence of this intersection between positive school-related dispositions and high levels of student participation in school". Kuh (2009) has summarized the history of foundation of student engagement as follows:

- Time on Task
- Quality of Effort
- Student Involvement



- Social, Academic Integration
- Good Practices in Undergraduate Education
- Student Engagement

More recent researches consider student engagement as a multidimensional construct involving behavioral, cognitive and emotional components (Fredricks, Blumenfeld & Paris, 2004; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Skinner & Belmont, 1993).

Following are the theories of Student Engagement.

1. Quality of Effort Theory (Pace, 1979)
2. Astin's Student Involvement Theory (Astin, 1985)
3. Tinto's Student Involvement Theory (Tinto, 1993)
4. Input-Environment - Output Theory (Astin, 1977)
5. Student engagement theory (Harlow et al, 2011)

All these theories form the base for student engagement. The 'quality of effort theory' by Pace (1979) explains how student engagement influences the academic development of the students. Astin's student involvement theory (1985) describes the assumptions of student engagement. Other theories such as Tinto's Student Involvement Theory (Tinto, 1993), Input-Environment - Output Theory (Astin, 1977) and Student Engagement Theory (Harlow et al, 2011) talks about the factors influencing the student engagement such as environmental factors and personal factors.

**Sample:** The data was collected from 1601 students pursuing B.Ed. in various colleges in Kerala State.

**Description of the Tool**

'Student Engagement Scale' developed and standardized by Sreelatha and Amuth G. Kumar (2015). There were 58 items in the tool. It was found that the reliability value of Cronbach's Alpha was 0.850 and that of Guttman Split-half Coefficient was 0.875 and that of Guttman Split-half coefficient was 0.903. Proportion Analysis was carried out for the Student Engagement for total sample and subsamples. For the total sample proportion Analysis was done to identify the proportions of Students falling in High, Average and Low groups and the significance in difference between the proportions also were calculated. Following which Proportion Analysis was done for the subsamples based on Gender, Marital Status, Age, and Type of Management. The significance in the difference existing between the categories of subsamples in each level of student engagement such as High, Average and Low are then calculated and interpreted.

**Results**

**Table 1: Proportions of Subjects Falling in to High, Average and Low Levels of Student Engagement for Total Sample**

Student Engagement	High		Average		Low		Total	
	N	%	N	%	N	%	N	%
	28	18.0	109	68.0	22	13.8	160	10
9	5	0	8	2	7	1	0	

Table 1 shows that 18.05% of students are falling under high group, 68.08% of students are falling under average group and 13.87% of students falling under low group based on the scores of student engagement.

**Table 1.1: Proportions of Subjects based on High and Average Levels of Student Engagement**

Student Engagement	High		Average		Critical Ratio
	N1	P1	N2	P2	
	289	18.05	1090	68.08	

From Table-1.1, the critical ratio of high and average group is 28.587 (p=0.0001) significant at 0.05 level. Thus there is significant difference in proportion between these two categories of students.

**Table 1.2: Proportions of Subjects based on High and Low Levels of Student Engagement**

Student Engagement	High		Low		Critical Ratio
	N1	P1	N2	P2	
	289	18.05	222	13.87	

From Table-1.2, the critical ratio of high and low group is 3.233 (p=0.0006) significant at 0.05 level. Thus there is significant difference in proportion between these two categories of students.

**Table 1.3: Proportions of Subjects based on Average and Low Levels of Student Engagement**

Student Engagement	Average		Low		Critical Ratio
	N1	P1	N2	P2	
	1090	68.08	222	13.87	

From Table-1.3, the critical ratio of average and low group is 31.191 (p=0.0001) significant at 0.05 level. Thus there is significant difference in proportion between these two categories of students.

**Table 2: Proportion of Subjects Falling in to High, Average and Low Levels of Student Engagement (Based on Gender)**

Levels of Student Engagement	Male		Female		Total
	N	%	N	%	
High	19	15.08	270	18.31	289
Average	88	69.84	1002	67.93	1090
Low	19	15.08	203	13.76	222
Total	126	100	1475	100	1601

From Table-2, it can be inferred that 15.08% of male and 18.31% of female from the total sample have high level of student engagement. The average group had



8.99% of male and 67.93 % of female. In the lower group 13.08 % of male and 13.76 % of female are there. Further, one-tailed test of significance for difference between proportions (independent groups) was applied to know whether the difference between the proportions of male and female in each level (high, average and low) is significant. The results are given in the below table.

**Table 2.1: Result of Test of Significance of Difference between Proportions based on Gender**

Levels of Student Engagement	Male		Female		Critical Ratio	p-value
	N1	P1	N2	P2		
High	19	15.08	270	18.31	0.904	0.183
Average	88	69.84	1002	67.93	0.441	0.3296
Low	19	15.08	203	13.76	0.41	0.3409

From Table 2.1, the critical ratio of male and female in the high group is 0.904 and its p-value is 0.183. For the average group the critical ratio is 0.441 with a p-value of 0.3296. The critical ratio and p-value of low group is 0.41 and 0.3409 respectively. None of the values are significant at 0.05 level. It means that the difference in the proportion of males and females in the high, average and low group is not significant.

**Table 3: Proportion of Subjects Falling in to High, Average and Low Levels of Student Engagement (Based on Marital Status)**

Levels of Student Engagement	Married		Unmarried		Total
	N	%	N	%	
High	144	20.03	145	16.44	289
Average	487	67.73	603	68.37	1090
Low	88	12.24	134	15.19	222
Total	718	100	882	100	1601

From Table-3, the 20.03% are married students and 16.44% are unmarried in the group with high level of student engagement. The average group had 67.73% of married and 68.37% of unmarried students. In the lower group 12.24% of married and 15.19% of unmarried students are there.

Moreover, one-tailed test of significance for difference between proportions (independent groups) was applied to know whether the difference between the proportions of married and unmarried students in each level (high, average and low) is significant. The results are given in the below table.

**Table 3.1: Result of Test of Significance of Difference between Proportions based on Marital Status**

Levels of Student Engagement	Married	Unmarried	Critical Ratio	p-value
High	144	145	0.904	0.183
Average	487	603	0.441	0.3296
Low	88	134	0.41	0.3409

Student Engagement	N1	P1	N2	P2	Ratio	value
High	144	20.03	145	16.44	1.857	0.317
Average	487	67.73	603	68.37	-0.271	0.3932
Low	88	12.24	134	15.19	-1.701	0.445

From Table-3.1, the critical ratio of married and unmarried in the high group is 1.857 and its p-value is 0.317. For the average group the critical ratio is -0.271 with a p-value of 0.3932. The critical ratio and p-value of low group is -1.701 and 0.445 respectively. None of the values are significant at 0.05 level. It means that the difference in the proportion of married and unmarried in the high, average and the low group is not significant.

**Table 4: Proportion of Subjects Falling in to High, Average and Low Levels of Student Engagement (Based on Age)**

Levels of Student Engagement	Age 20-25		Age above 25		Total
	N	%	N	%	
High	207	16.45	82	23.90	289
Average	865	68.76	225	65.60	1090
Low	186	14.79	36	10.50	222
Total	1258	100	343	100	1601

From Table-4, the 16.45% of students were in the age group of 20-25 and 23.90% of students were having the age of above 25 in the group with high level of student engagement. The average group had 68.76% of students in age between 20-25 and 65.60% of students in age above 25 years. In the lower group 14.79% of students in age between 20-25 and 10.50% of students in age above 25 years were there.

Further, one-tailed test of significance for difference between proportions (independent groups) was applied to know whether the difference between the proportions of students in age 20-25 years and above 25 years in each level (high, average and low) is significant. The results are given in the below table.

**Table 4.1: Result of Test of Significance of Difference between Proportions Based on Age**

Levels of Student Engagement	Age 20-25		Age above 25		Critical Ratio	p-value
	N1	P1	N2	P2		
High	207	16.45	82	23.90	-3.181	0.0007*
Average	865	68.76	225	65.60	1.114	0.1326
Low	186	14.79	36	10.50	2.038	0.0208*



From Table-4.1, the critical ratio of age 20-25 years and above 25 years in the high group is -3.18 and its p-value is 0.0007 which is significant at 0.05 level. For the average group the critical ratio is 1.114 with a p-value of 0.1326 which is not significant at 0.05 level. The critical ratio and p-value of low group is 2.038 ( $p=0.0208$ ) which is significant at 0.05 level.

**Table 5: Proportion of Subjects Falling in to High, Average and Low Levels of Student Engagement (Based on Type of Management)**

Levels of Student Engagement	Government & Government-Aided		Private		Total
	N	%	N	%	
High	92	13.18	197	21.82	289
Average	492	70.49	598	66.22	1090
Low	114	16.33	108	11.96	222
Total	698	100	903	100	1601

From Table-5, the 13.18% of students from government, government-aided institutions and 21.82% of students from private institutions have high level of student engagement. The average group has 70.49% of students from government, government-aided institutions and 66.22% of students from private institutions. In the lower group 16.33% of students from government, government-aided institutions and 11.96% of students from private institutions are there.

Moreover, one-tailed test of significance for difference between proportions (independent groups) was applied to know whether the difference between the proportions of students from government, government-aided institutions and private institutions in each level (high, average and low) is significant. The results are given in the below table.

**Table 5.1: Result of Test of Significance of Difference between Proportions Based on Type of Management**

Levels of Student Engagement	Government & Government-Aided		Private		Critical Ratio	p-value
	N1	P1	N2	P2		
High	92	13.18	197	21.82	-4.455	0.0001*
Average	492	70.49	598	66.22	1.815	0.0348*
Low	114	16.33	108	11.96	2.51	0.006*

From Table-5.1, the critical ratio of students from government, government-aided and private institutions in the high group is -4.455 ( $p=0.0001$ ). For the average group the critical ratio is 1.815 with a p-value of 0.0348. The critical ratio and p-value of low group is 2.51 and 0.006

respectively. All the values are significant at 0.05 level. This means that the difference in the proportion of students from government, government-aided and private institutions in the high, average and the low group is significant.

#### Findings

The proportion of students belonging to Average group is far more than that of students belonging to High group. This may be because, the factors affecting student engagement, may not be affecting in the same way for High and Average groups. The proportion of students belonging to High group is more than that of students belonging to Low group. This may be because, the factors affecting student engagement, affects differently on High and Low groups. The proportion of students belonging to Average group is far more than that of students belonging to Low group. This may be because, the factors affecting student engagement, affects in different ways on Average and Low groups but not in the same way.

The test result indicates indirectly that the factors affecting student engagement, acts in the same way on males and females. There is no gender difference in the level of student engagement. There is no much difference in the proportions itself. In the present scenario there is a trend of falling enrolment of male students for the B.Ed. course. Based on this trend there are informal discussions and popular belief that the quality of teachers may come decline. The reason for which is that a female teacher has more responsibilities at home than a male teacher as a mother, wife, daughter in law etc. so lack of time obstructs them to sharpen their professional skills in the course of their work. But the current research shows contradictory results.

There is no difference in the level of student engagement based on marital status in all the three levels. There is also a common argument that the unmarried students get more time to complete their works and at home and engage in studies than married students. This might help them to complete the works on time which will have direct influence on the engagement of students in the B.Ed. course. Contradictory to this argument there is another argument that is a married student will show more engagement in studies since she or he has more commitments in a different familial setup. But the result of the present research shows that both the arguments are meaningless. Or it can be said as the Marital Status plays no significant role in the engagement of students in the B.Ed. course.

Significance of critical ratio shows that the factors affecting Student Engagement, does not affects in the same way on high and low groups based on the age group of B.Ed. students. But for the students having average level of Student Engagement these factors are acting on the same way in both the age groups. From the significant values of high group and low group it can be said that, Age has a significant role in engaging students in the course. The



number of students above 25 years of age is more in the management category when compared to counter parts in the 20-25 years of age. There is always a controversy about the influence of age on student engagement in any program. There are arguments that young ages generate another set of arguments propose that ageing is a hurdle to pursue educational programs (Bhabhath 1885). Yet another argument is that age has no influence on engagement in the courses. While considering the high and low group, the result of this study is along with the first two views that age has some influence on engagement in the course. If the average age is considered the result supports the third view that age has no influence on engagement in the course. The students belonging to 20-25 age groups may have just completed their graduation or post-graduation and might have directly joined for the B.Ed. program. This may be an average to them. On the other hand the students of above 25 year groups might have joined for B.Ed. program after a break. This may result in perceiving the program in a different way leading to a significant influence upon them. Coming to low engaged students the proportion of students in 20-25 years age group is larger than that of students in above 25 year age group. Here also the difference is significant. B.Ed. course is an activity oriented course which involves activities such as preparation of charts, model making, lesson plan writing etc. These activities might be taken up by the two different age groups in different manner. For lower group the low age group (20-25) might be taking these kinds of activities quite enthusiastically. While, the aged (25 above), might be treating it as a burden. Due to their growing age and being in lower age group, they will have serious bearing on their attitude for their studies which in turn is a serious indicator to their engagement as students.

The proportion of students belonging to private college is more than that of students belonging to Government and Government Aided colleges in high group. The difference in proportion among these two categories of students is significant. The possible reasons could be the institutional climate, teacher student relationship and other favorable conditions existing in the institutions. It is assumable that the students belonging to high group in Government Supported institutions have high engagement. But those students in the private management and belonging to high group might have gathered high engagement after joining in the institution drawing from the favorable factors available in the institution. Even though both the category are placed under high engaged group, due to the variation in the institutional climate, teacher student relationship etc exists in the college the difference in proportion might have become significant. In the low group, the proportion of low engaged students is in Government supported colleges are greater than in the

Private Colleges. Here also the difference in proportions is significant. It indicates that in Government supported colleges after getting the admission into the courses the students show declining engagement. The liberal atmosphere prevailing in government supported colleges might have a role in this low engagement. But in private college there is a possibility of getting admission even for a less capable student through payment seat. Here comes the role of a system followed in B.Ed. courses recently, that if a student is not getting admission into any other course after the graduation he or she mostly will join for B.Ed. course. Another interesting factor is there that if a female student is not being able to get married due to any personal factors then she will take admission in the B.Ed. course for sure. Because she can manage one year and a completion of B.Ed. course will give more weightage in the marriage market. These two different aspects prevailing in Government supported colleges and Private colleges might have led to a significant difference in the proportion among the low engaged students. When the average group is considered, the proportion of students in Government and Government Aided colleges are more than that of the Private colleges. But the difference in this proportion is not significant. It means that whatever factor is influencing the student engagement, it is taken up in the same way by the students of average group irrespective of the type of management. It can be said that people in the average group faces happenings with a neutral attitude. This might be the reason for the insignificance in the difference in the proportions.

### Conclusion

From the results and findings it can be concluded that the gender has nothing to do in engaging as a student in the B.Ed. course. The factors affecting student engagement acts in the same way on married and unmarried students, but does not affect in the same way on high and low groups based on the age group of B.Ed. students. But for the students having average level of Student Engagement these factors are acting on the same way in both the age groups. The factors affecting student engagement, executes differently on the students falling in various types of institutions for high and low group. But in the average group it operates in the same way irrespective of the type of institution that the students belongs to.

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