

Moderation effect of Student Engagement on Employee Engagement and Teaching Effectiveness

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Abstract

Student engagement is one such factor which is ignored in various academic and faculty behavioral studies. Student engagement is critical in determining the effectiveness of teaching. Though the teacher is effective it is important that the student is also engaged in the class during the learning process. On the other hand the teacher should be satisfied in their job to focus on the teaching process effectively. Integrating of the above facts the present study is sought to understand the moderation effect of student engagement on the relationship between employee engagement and teaching effectiveness. The literature studies reveal that there are inadequate number of studies in this particular area of student engagement and teaching effectiveness. The present study is conducted among 410 engineering college faculties working in rayalaseema region of Andhra Pradesh. The descriptive research design and statistical analysis of data reveal that:

- The faculties perceive engineering students are moderately engaged towards studies. Faculties perceive that they are engaged in fulfilling the job duties and responsibilities. Further teachers perceive effective teaching in private engineering colleges.*
- There is significant and weak relationship between teaching effectiveness, Employee engagement and Student Engagement.*

- *The study finds insignificant interaction effect of Student Engagement and Employee engagement on Teaching Effectiveness.*

Hence the study finds that Student Engagement is a significant variable in imparting the quality education and influencing Teaching Effectiveness. Hence it is important to design events and programmes in motivating and encouraging the young talent to have continuous student engagement.

Key Words: Student Engagement, Job Satisfaction, Teaching Effectiveness, Private Engineering Colleges.

1. Introduction

In the modest development of the world economy, there is a crunch in the right talent for the corporate companies. The world economy is facing contrary situations such as unemployment and mismatch of right skills for the companies. This is very true in the case of engineering students, where India is producing lakhs of engineering students but not matching to the need and requirement of the corporate. Hence the colleges and universities are facing greater scrutiny regarding the efficacy of teaching the right skills to the students and their ability to serve the diverse population with consistent disbursement of knowledge. The government has recognized this peculiar situation in the country has initiated various measures to curb the gap between demand and supply of talent. The Government of India is establishing number of new IIT's, IIM's and various specialized central institutions covering geographically to match the talent gap.

However the researcher finds fault not in the number of institutions but the process of learning. A student to gain the right skill and talent he has to be focused and engaged tremendously in the academic activities. The student should be engaged in various real time projects, student oriented teaching, assignments, industry exposure, rigorous training on the job skills and etc. It can be observed that these activities are been conducted in the premium institutions but still finds some students are failing to match the corporate requirements and choosing other fields for their livelihood. The researcher observes the phenomena that students are less engaged and focused even though their institutions are insisting to undergo rigorous academic activities. The reasons could be many, critical among them are lack of interest in the subject, low aptitude skills in grasping the subject and unwanted activities.

On the others side, due to various government schemes and policies in education sector such as fee regulations in higher education, the revenue has fallen drastically to pay the

UGC salaries to the faculties working in private engineering colleges. In addition, heavy load of teaching and administration activities are put upon the faculties. Where the faculty members have lack of time to plan and analyze academic activities that match to the present world for students. The above scenario is impacting the satisfaction levels of teacher personally and professionally.

Observing the above phenomena the researcher has found it is important to study the perception levels of student engagement and employee engagement among the engineering college faculties working in Andhra Pradesh. Hence the present study is sought to analyze the levels of perceptions of faculties working in private engineering colleges towards the student engagement and job satisfaction. Further study is intended for analyzing the interaction effect of student engagement and employee engagement on teaching effectiveness.

2. Review of Literature:

The literature survey has provided a foundation for understanding the process of student persistence and withdrawal. According to Barefoot (2000), the goal of the institution should be to (a) increase student-to-student interaction, (b) increase faculty-student interaction, (c) increase student involvement and time on campus, (d) link the curriculum and the co-curriculum (school sponsored and directed activities), (e) increase academic expectations and levels of academic engagement, and (f) assist students who have insufficient academic preparation for college.

A more recent study (Zhoa & Kuh, 2004) examined the relationship between participating in learning communities and student engagement at 365 four-year institutions. The purpose of the study was to determine whether or not participation in learning communities was linked to student success. The database used for this study was the National Survey of Student Engagement (NSSE), an annual survey of both first-year and senior students. NSSE was designed to measure student experiences. The results of the study indicated participating in learning communities was uniformly and positively linked with students' (a) academic performance, (b) engagement in educational activities, (c) achievement associated with college attendance, and (d) overall satisfaction with the college experience.

The theoretical models and conceptual frameworks of Spady and Tinto suggest faculty-student relationships outside of the classroom not only increase social integration and institutional commitment but also increase individual academic integration. Many other studies (Pascarella & Terenzini, 1979; Terenzini & Pascarella, 1980; Teophilides &

Terenzini, 1981; Tinto 1975), not only concluded faculty-student interaction significantly influenced persistence but that the quality and quantity of the contacts had a distinct impact as well.

A central focus of many first-year courses is to increase student involvement in programs organized by the university, which can be achieved through cooperative relationships among student affairs and academic affairs professionals (Barefoot, 2000). Research indicates similar to student-to-student interaction and faculty-to-student interaction, student involvement in campus activities and time spent on campus have an impact on social integration.

Astin (1997) suggested the typical university provides inadequate preparation of positively predicts that students will also be involved in the spring. In addition, early involvement with peers and faculty seem to strengthen the perceptions of institutional and social support, which ultimately effected persistence from the first-year to the second year of college. Conversely, students who are not involved early in the fall tend to stay uninvolved and have a negative perception of the institution and their peers.

Advocates of linking the curriculum with the co-curriculum (school sponsored and directed activities), argue that out-of-class activities create a synergy able to enhance student learning. Strategies for linking experiential learning to the classroom include first-year seminars, learning communities, and residential learning programs. One of the most widely used pedagogies, however, is the service-learning model. Service learning is a pedagogical strategy molding quality student development through active learning, engagement in the community, and critical thinking. Research indicates integrating service learning with classroom experiences augments student involvement, interpersonal skills, and personal reflection, increasing the sense of civic responsibility, and promoting moral development.

The goals of service learning are to (a) bridge student activities and critical analysis inside the classroom with experiences outside the classroom, (b) promote knowledge acquisition and educational performance, (c) increase group-based and cooperative learning, and (d) assist students in developing solutions to real-world, complex problems. The expected outcome of this pedagogical model is to foster civic responsibility, build teamwork and leadership skills, and increase citizenship behaviors among first-year students applicable longitudinally through upper division courses and later the workforce (Barefoot, 2000). In order to effectively build service-learning programs it is imperative that student affairs

professionals, academic affairs, and faculty become involved collaboratively in the educational process.

The recent debate concerning whether or not today's college students are more or less academically engaged than were previous generations continues. Student orientation offers campuses the opportunity to include academic programming aimed at changing student attitudes and expectations about college life. Activities for new students should be aimed at creating an initial impression of the purpose of higher education and dispelling the myth that colleges provide round-the-clock parties (Barefoot, 2000).

3. Objectives

1. The study is sought to understand the perception levels of faculties regarding Student Engagement, Employee engagement and Teaching Effectiveness.
2. To understand the relationship among Student Engagement, Employee engagement and Teaching Effectiveness.

4. Hypothesis Development

H1: *There is significant relationship between Employee engagement and Teaching Effectiveness*

H2: *There is significant relationship between Student Engagement and Teaching Effectiveness*

H3: *Student Engagement moderates the relationship between Employee engagement and Teaching Effectiveness.*

5. Research Methodology

The present study is sought understand the levels of perception and relationship among student engagement, employee engagement and teaching effectiveness among the private engineering college faculties. Hence the study adopts the process of descriptive research design, that is intended to describe the present scenario and direction of relationship. Student engagement is considered as moderating variable on the relationship between employee engagement and teaching effectiveness.

5.1 Sample Design:

The geographical region of the study is considered to be the private engineering colleges functioning in various parts of rayalaseema region of Andhra Pradesh. Andhra

Pradesh is divided into coastal and rayalaseema region, among these two regions rayalaseema region is chosen randomly. Rayalaseema region has four districts namely Kadapa, Kurnool, Chittor and Anantapur. So the study is conducted among the faculties of private engineering colleges functioning in the above mentioned districts of rayalaseema region. The study follows non probabilistic and convenience sampling design in choosing the samples for the study. The researchers approaches the colleges through telephone or personal meetings with the Principals of the institutions for seeking the permission. The researcher has considered those colleges faculties permitted for conducting the survey.

5.2 Sample Size:

The study considered a Margin of error equal to standard of 5%, Confidence level 95%, Population size of 20,000 (Assumed value, since the exact number of faculty members is not known) engineering faculty members in Andhra Pradesh and Response distribution of 50%. Finally the calculated value of sample size is 377. Hence the study collected primary data from 400 engineering college faculty to the nearest value. The 400 sample is been distributed equally among the four districts of Rayalaseema Region, Hence from each district the study has collected the primary data from 100 engineering college faculty members. The details are as follows.

Table 1: Sample Distribution

SL.No	District	Sample Size
1	Kadapa	110
2	Chittor	100
3	Anantapur	100
4	Kurnool	100
Total Sample Size		410

5.3 Data Collection:

The study has collected extensive literature related to student engagement, employee engagement and teaching effectiveness to get the insights on the direction of the study. The secondary data has revealed many insights such as the research gap, scope of the study so far conducted. Further the study has collected primary data by distributing the survey instrument to the private engineering college faculties as mentioned above. The first hand information collected regarding the perception levels of faculties are utilized for analyzing the relationship among the study variables.

5.4 Statistical Tools:

Data is analyzed by using SPSS 16.0 version. Statistical tools like correlation and regression analysis were employed for this study.

6. Data Analysis

It can be observed from the Table 2 about the demographic profile of the faculties working in private engineering colleges functioning in rayalaseema region of Andhra Pradesh. It is observed from the summarized table that majority of the faculties are male and in the age group of 25-30 years. The majority of the faculty acquired the highest degrees such as post graduation and with experience minimum of five years to ten years. The faculties are working in the designations of Assistant Professor cadre. The detailed data is summarized in table 2.

The weighted means and Cronbach's Alpha for Student Engagement, Employee engagement and Teaching Effectiveness is resulted as follows 0.743, 0.784 and 0.940 in order, which is above the standard norms. The weighted mean score of Student Engagement, Employee engagement and Teaching Effectiveness is observed at 3.84, 3.90 and 4.20 is interpreted as moderate to high levels of perceptions regarding Student Engagement and Job Satisfaction, except Teaching Effectiveness.

6.1 Influence of Employee engagement on Teaching Effectiveness

The study analyzes the relationship between Employee Engagement and Teaching Effectiveness by employing Correlation and Regression analysis. Employee Engagement is taken as independent variable and Teaching Effectiveness is taken as dependent variable. The outcome is summarized in the **Table 3 & 4**.

The correlation analysis reveal there is significant relationship between Employee Engagement and Teaching Effectiveness ($r = 0.317$, $p < .000$). The regression analysis reveal Employee Engagement is able to explain 10 % of variance in Teaching Effectiveness ($R^2 = 0.100$, $p < .000$). Consequently the study results confirm there is significant relationship between Employee Engagement and Teaching Effectiveness. Hence Hypothesis 1 that There is significant influence of Employee Engagement on Teaching Effectiveness is accepted.

6.2 Influence of Student Engagement on Teaching Effectiveness

To analyze the relationship between Student Engagement and Teaching Effectiveness, Correlation and Regression analysis is employed. Student Engagement is considered as

independent variable and Teaching Effectiveness is considered as dependent variable. The results are summarized in the following **Table 3 & 4**.

By observing correlation analysis, it is proved statistically that there is significant relationship between Student Engagement and Teaching Effectiveness ($r = 0.298, p < .000$). Consequently regression analysis revealed Student Engagement is able to explain 8.8 % of variance in Teaching Effectiveness ($R^2 = 0.088, p < .000$). Consequently the study results confirm there is significant relationship between Student Engagement and Teaching Effectiveness. Hence **H2 is accepted**.

6.3 Moderation effect of Student Engagement

The regression of Student Engagement on teaching effectiveness is significant at $\beta = .289, t(406) = 5.029, p = .000$. The regression of Employee Engagement on Teaching effectiveness is significant in presence of Student Engagement at $\beta = .398, t(406) = 5.376, p = .000$. The total model summary is significant at $R^2 = .153, F(406) = 24.48, p = .000$. Interaction effect of Student Engagement and Employee Engagement is insignificant at $R^2 = .000, F(406) = .0058, p = .939, \beta = .0068, t(406) = .076, p = .939$.

It is observed from the following chart 1, teaching effectiveness is found to be highest at high Employee Engagement and Student Engagement. Further it is observed that Teaching Effectiveness is low at low Employee Engagement and Student Engagement. But the study fails to prove statistically regarding moderation effect of Student Engagement. Hence **H3 is rejected**.

7. Conclusion

The study finds relatively positive levels of Employee Engagement among faculty in engineering colleges. The faculty opines that they are fascinated being a member of their organization; highly engaged in their job and they feel concern regarding the activities happening in their organization. Hence the study opines faculties are engaged in their job and organizational activities. The study finds weak and significant relationship between Student Engagement, Employee Engagement and Teaching Effectiveness.

The study findings signify Student Engagement and Employee Engagement in seclusion are able to explain significant variance in Teaching Effectiveness. But interaction plot reveal unresponsive lines of Student Engagement indicate insignificant moderation of relationship. Moreover the study results disclose insignificant interaction effect of Student Engagement and Employee Engagement on Teaching Effectiveness. Consequently the study

opines Student Engagement has no influence on the association between Employee Engagement and Teaching Effectiveness.

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8. Annexure

Fig 1: Moderation effect of Student Engagement

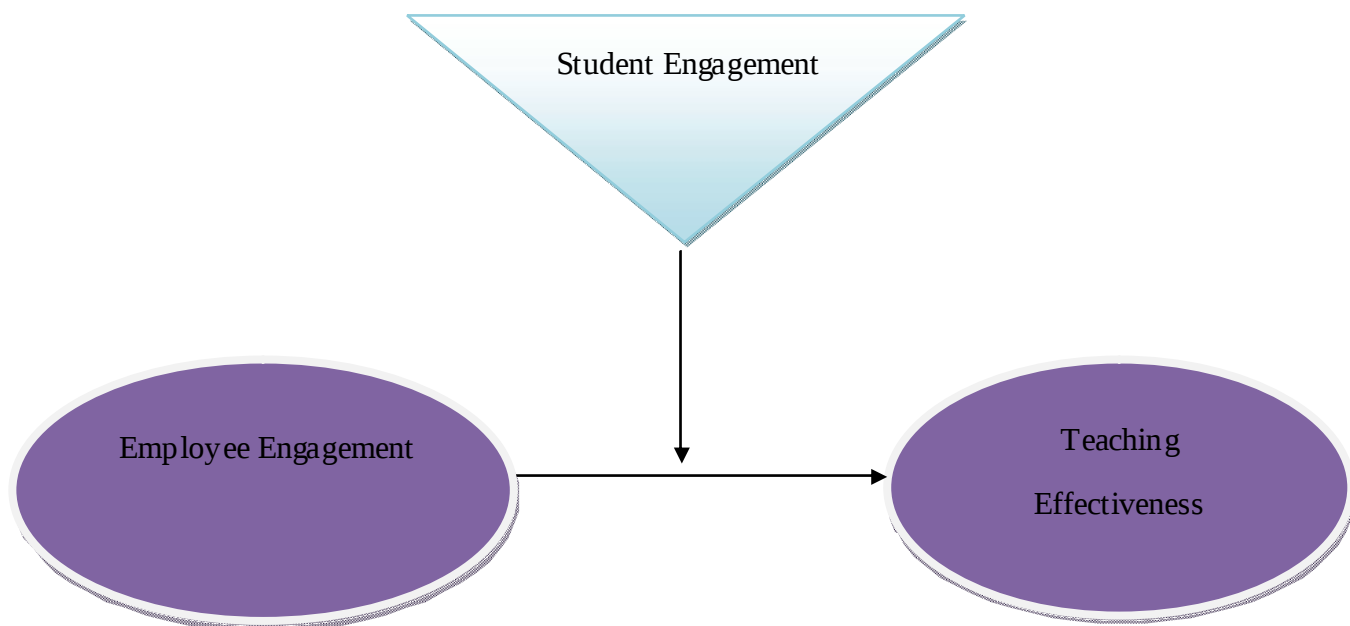


Table 2: Descriptive Statistics of Demographic factors of Faculty (N=410)

SL. No	Demographic Factors		Number of Respondents	Percentage
1	Gender	Male	264	64.4
		Female	146	35.6
2	Age Group	25-30 Years	257	62.7
		31-40 Years	138	33.7
		41-50 Years	10	2.4
		51-60 Years	5	1.2
3	Year of Experience	0-5 Years	250	61.0
		6-10 Years	101	24.6
		11-15 Years	42	10.2
		15-20 Years	13	3.2
		21 and above Years	4	1.0
4	Qualification	Graduation	47	11.5
		Post Graduation	305	74.4
		NET/SLET(CSIR)	5	1.2
		M. Phil	19	4.6
		Ph. D	34	8.3
5	Designation	Assistant Professor	350	85.4
		Associate Professor	51	12.4
		Professor	8	2.0
		Others	1	0.2
6	District	Kadapa	110	26.8

SL. No	Demographic Factors	Number of Respondents	Percentage
	Chittor	100	24.4
	Anantapur	100	24.4
	Kurnool	100	24.4

Table 3: Correlation Analysis among study variables

SL. No	Relationship	r	p-value
1	Student Engagement → Teaching Effectiveness	0.298	.000
2	Employee engagement → Teaching Effectiveness	0.317	.000

**Significance at p < 0.01.

Source: SPSS Output

Table 4: Regression Analysis among study variables

SL. No	Relationship	R ²	p-value
1	Employee Engagement → Teaching Effectiveness	0.100	.000
2	Student Engagement → Teaching Effectiveness	0.088	.000

**Significance at p < 0.01.

Source: SPSS Output

Table 5: Moderation Effect of Student Engagement on Employee engagement and Teaching Effectiveness

Regression Parameters	Employee Engagement(EE)	Student Engagement(SE)	EE*SE	Model Summary
R ²			.000	.153
df			406	406
F			.0058	24.48
p			.939	.000**
β	.398	.289	.0068	4.199 (Constant)
t	5.376	5.029	.076	103.44
p	.000**	.000**	.939	.000**

**Significance at P < 0.01.

* Significance at P < 0.05.

Model: Employee engagement (Predictor), Student Engagement (Moderating Variable) and Teaching Effectiveness (Dependent Variable).

Chart 1: Interaction Effect of Employee engagement and Student Engagement

