

A STUDY ON THE EFFECT OF PERSONAL VARIABLES ON FACTORS OF COMPETENCE OF ENGINEERING PROFESSORS

Rama L Research Scholar, School of management studies, Cochin University of science and technology, India

Dr. Sarada S. School of management studies, Cochin University of science and technology, India

Abstract

The study was designed to investigate the impact of self-esteem, general self-efficacy and certain personal variables on competence of professors who teach engineering subjects. The sample consisted of 716 teachers (Assistant professor, Associate professor and Professor) selected randomly from the governmental and non-governmental Engineering institutions of Kerala. Rosenberg's self-esteem scale, Jerusalem, M., & Schwarzer, R. scale for general self-efficacy and Ninsima's scale for measuring engineering teacher's competence were administered to the teacher respondents. Results revealed that gender have significant effect on general self efficacy, marital status have significant effect on teacher competence, category of institution have significant effect on self-esteem.

Index terms: teacher competence, self-esteem, general self -efficacy.

I. INTRODUCTION

This study aims at examining competences of engineering teachers in relation to self esteem and general self efficacy in higher education sector of Kerala. Attracting competent and motivated people into the teaching profession increasing teacher competence and enhancing teacher quality are international concerns that occupy policy makers and researchers from a diverse range of countries, such as the United States, the Netherlands, Germany, the United Kingdom, Australia and India. Therefore, it is not surprising to observe that a growing body of research examines the underlying reasons for motivating individuals to become effective teachers and what attracts people from other careers to enter into the teaching profession.

Engineering education is vital to higher education sector of India. Ensuring quality teaching in engineering education has currently become a primary focus of our country. Effective teaching rests on competence of teachers. Understanding these competences to a great extent rests on realising the multiple roles of teachers by themselves. Teacher awareness regarding self esteem, general self efficacy and competences obviously influence the quality of engineering education.



There exists literature to support the steady decline in quality of teaching in engineering education. This is in terms of poor quality of teachers, outdated syllabi (Banerjee and Muley, 2008) and insufficient infrastructure like poor library, inadequate workshops and ill equipped laboratories.

The low employability quotient expresses the reluctance of the industries to recruit the engineering students to different positions. Its a big concern in the higher education sector therefore it is the responsibility of the engineering education to provide quality students for recruitment. For example, the oldest engineering college in Kerala, the College of Engineering, and Trivandrum which is the best in providing engineering education is affiliated to the university of Kerala. A micro level picture of engineering education in the state is provided with the help of data on intake and outturn of engineers from engineering colleges affiliated to this University. As of .March 31 2011, 39 engineering colleges are affiliated to this University. The number of engineering colleges affiliated to the university started increasing after the liberalisation of engineering education in 2001. From 5 colleges in the pre liberalisation regime, the number of colleges increased to 16 by 2002. All the newly formed colleges have a self-financing model. 2009 also marks a sudden increase in engineering colleges' affiliated to the university. In terms of capacity and outturn rates, the data from the University of Kerala shows the same pattern seen in state level data. The intake and outturn for three cohort of students from 2004 to 2006 shows that while intake has grown fast, outturn rate has not increased at the same pace. The results for 2006 cohort show substantial reduction in outturn rate at 35 per cent. Even the absolute number of outturn for 2006 cohort is actually less than the absolute level of outturn for 2004 cohort. An analysis of results of individual colleges helps to better understand the source of failure in outturn gives the pass percentage of individual colleges affiliated to Kerala University between 2006-2010. Based on their financing model, colleges are grouped into Government funded, Government aided, and Self Financing. It can be seen that Government funded and Government aided colleges have better pass percentage than self-financing colleges across the five years .While there is a drop in the pass percentage across all groups of colleges, it is much higher in the case of self-financing colleges. As the quality of teachers being an important factor that affects the results of students, that colleges having a faculty index score closer to three have a higher pass rate. This pattern is almost similar in the universities across kerala. (Sunil Mani and Arun M., 2012).

The present study is important for two crucial reasons. First, teacher competence celebrates teachers' sstrengths and virtues. In particular, optimal classroom functioning occurs when teachers believe in themselves, their students, and the importance of the content (Kurz, 2006, p.109), signifying that trait and attitude vvariables are important motivational variable in educational settings such as classrooms and schools. The same is also true for prospective teachers' exemplary performance (Richardson & Watt, 2010), (Hagger & Malmberg, 2011). This paper discusses the increase in the number of private engineering colleges in the state of Kerala. Enrolment in engineering education has increased from 2800 in 1991 to about 28000 in 2008. Since 2004 the outturn rate of students in engineering education across branches had been declining steadily, here this has been brought out after a careful analysis. This steady decline has been studied across different branches different out of 5 colleges in southern Kerala. This paper discusses the probable causes for this decline of out-turn rates in connection with the state affairs.(Sunil Mani and M



Arun, 2012)

The paper aims to study the adoption of total quality management practices in engineering institutions in India from the managements' perspective. This study establishes a conceptual model with 27 critical dimensions of quality management leading to institutional performance using 5 dimensions.Out of 5 performance dimensions faculty competence and excellence is one among them(Sayeda, Rajendran, & Lokachari, 2010).

This research article critically investigates the perceptual gap between the graduste attributes that education system produce and competencies needed in practice in order to satisfy industry expectations. This empirical study includes the student's attitude and self-concept at the meta-level and contextualise the student's set of competencies to a specific work situation.(Walther & Radcliffe, 2007)

II CONCEPTS

2.1 Self esteem

Self esteem is defined as a stable sense of personal worth or worthiness measurable by self report. The challenge of experiencing oneself as competent in facing and managing the basic challenges of life and also feeling happy and worthy to live.. Self -esteem reflects a person's overall self appraisal of his own worth. Self -esteem is a basic human need. Self esteem is inevitable action of individuals choices in using their mind and conscious. Something experienced in the form of thought, action, feeling and behaviour.[1]

2.2 Self efficacy

According to Albert Bandura,[2] self-efficacy is "the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations." self-efficacy is a person's belief or capability to overcome the hurdles and succeed in job situations.. Bandura described these beliefs as determinants of how people think, behave, and feel (1994).

2.3 Competence

First popularized by Boyatzis (1982) "A capacity that exists in a person that leads to behaviour that meets the job demands within parameters of organizational environment, and that, in turn brings about desired results" [4] Competence has been defined by Epstein and Hundert (2002) as the, "habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection" in daily practicefor the benefit of the individual and community being served." Competence also presumes integration of multiple competencies. Competencies are conceptualized as elements or components of competence, that is, discrete knowledge, skills, and attitudes (Kaslow et al., 2004). Competence: A work related concept that refers to areas of work at which the person is competent. According to Woodruffe(1991), competence is defined as information accumulated in a particular area of expertise (e.g., teaching, accounting, selling, servicing, management)[5]

Skills: The demonstration of expertise (e.g., the ability to make effective presentations, or to negotiate successfully)



Motive: Thoughts driving behaviours (e.g., drive for achievement, affiliation)

Attitude: Self-concept, values and self image

Traits: A general disposition to behave in certain ways (e.g., flexibility).

The definition of competence in this study is a set of components such as subject knowledge, skill in delivering the concepts, attitude towards teaching, communication, assessing and evaluating students performance, reviewing and updating academic programmes and course content, designing and implementing curriculum, organising student's projects, assessing laboratory work and providing career guidance and counselling in academics.

II. REVIEW OF LITERATURE

3.1 Competence

Competence was first introduced and assessed by McClelland in 1970s, competencies, or individual characteristics, are identified as predictors of employee successful performance Equal importance was given for individual's academic aptitude ,knowledge and skill content .(McClelland, 1973,Schley, D. G., Lucia, A. D., & Lepsinger, 1999). A competency is a capability of applying knowledge, skills, abilities, behaviours, and personal characteristics to successfully perform critical work task, specific functions, or operate in a given role or position.[6] Personal characteristics may be mental/intellectual/cognitive/social/emotional/attitudinal, and physical and psychomotor attributes necessary to perform the job.(Boyatzis, 1982)(Dubois, 1993).(Schley, D. G., Lucia, A. D., & Lepsinger, 1999).Boyatis (1982) and Fogg (1999) [27] Included both internal and external constraints, environments and relationships related to occupation. In short competences are specific personal qualities that are "causally relates to effective / superior performance" (Boyatis 1982).[4] [7][8] [9]

According to the authors (Verma, Sarita and Paterson, Margo and Medves, 2006) "competencies in education create an environment that fosters empowerment, accountability, and performance evaluation, which is consistent and equitable. The acquisition of competencies can be through talent, experience, or training."[10]

Barr (1998) gives the following examples of collaborative competencies: "Describe one's roles and responsibilities clearly to other professions. Recognize and observe the constraints of one's role, responsibilities and competence, yet perceive needs in a wider framework. Recognize and respect the roles, responsibilities and competence of other professions in relation to one's own. Work with other professions to effect change and resolve conflict in the provision of care and treatment. Work with others to assess, plan, provide and review care for individual patients. Tolerate differences understandings and shortcomings in other professions. Facilitate inter professional case conferences, team meetings," [11]

3.2 General self efficacy



Self-efficacy, defined as "beliefs in one's capabilities to mobilize the motivation, cognitive resources, and courses of action needed to meet given situational demands" (Wood, R., & Bandura, 1989, p.408). [5]Self-efficacy has been widely studied in organizational behaviour research (Bandura, 1997) (Gist, M. E., & Mitchell, 1992)(Stajkovic, A. D., & Luthans, 1998). Research has established that self -efficacy influences and predicts many other important work-related outcomes and job attitudes, (Saks, 1995), training efficiency (Martocchio, Joseph J., 1997) and job performance and effectiveness (Stajkovic, A. D., & Luthans, 1998). According to Social cognitive theory (Bandura, 1997)(Bandura, 1986), self-efficacy beliefs base on three dimensions (1) level of magnitude i.e., particular level of task difficulty, (2) strength i.e., certainity of successfully performing a particular level of task difficulty and (3) generality i.e., the extent to which magnitude and strength beliefs generalise across tasks and situations Recently researchers have started focussing more on trait -like general dimension of self-efficacy, termed as general selfefficacy (GSC). GSE is defined as "one's belief in one's overall competence to effect requisite performances across a wide variety of achievement situations"[12] (Eden, in press) or as "individuals' perception of their ability to perform across a variety of different situations" (Judge, T. A., Erez, A., & Bono, 1998). Hence GSE identifies differences among individuals in their feeling to view themselves capable of meeting task demands in a broader range of contexts. Researchers(Judge, T. A., Locke, E. A., & Durham, 1997)(Gardner, D. G., & Pierce, 1998) have identified that specific self efficacy is a motivational state and general self efficacy is a motivational trait. According to Eden Both GSC and specific self-efficacy (SSE) are beliefs about one's ability to achieve the desired outcomes but the construct differ in scope of application of the performance field. According to Eden,(1988) GSE is more resistant to ephemeral influences than SSE., GSE and SSE share the same antecedents such as actual experience, vicarious experience, verbal persuasion and psychological states.(Bandura, 1997).The most powerful antecedent of GSE is the bundle of previous experiences. (Sherer, M.,&Adams, 1983:Shelton, 1990).Shelton (1990) proposed that GSC evolves over one's life span as an aggregated and accumulated successes and failures across different domains.GSE spreads across different task domains.[18]

Bandura (1997) stated Powerful mastery experiences that provide striking testimony to one's capacity to effect personal changes can also produce a *transformational restructuring of efficacy beliefs* that is manifested across diverse realms of functioning. Such personal triumphs serve as transforming experiences. It makes an individual capable of facing and decide based on the challenges of the situation. (p. 53)

GSC contributes to accumulated successes, persistent positive vicarious experiences, verbal persuasion and psychological states in an individual. According to Judge et.al (1997), GSE relates to other self-evaluation constructs, including self-esteem, locus of control and neuroticism. Judge and colleagues have identified high correlations between GSE and self- esteem.(Judge, T. A., Bono, J. A.,&Locke, 2000) 20].[14]Chen, Gully and Eden have established that GSE is positively associated to need achievement and conscientiousness other motivational traits.(Chen, G., Gully, S.M., & Eden, 2001) GSE positively influences SSE across tasks and situations, especially to make an individual feel more efficacious across tasks and situations is the power and influence of GSE.(Eden, 2001) [13].Bandura (1997) claimed that GSE measures "bear little or no relation either to efficacy beliefs related to particular activity domains [i.e., SSE] or to behaviour". (Bandura,



1997). General self-efficacy (GSE) is the belief in one's competence to tackle novel tasks and to cope with adversity in a broad range of stressful or challenging encounters, as opposed to specific self-efficacy, which is constrained to a particular task at hand. This study based on social-cognitive theory of Bandura explores relations between GSE and the other psychological constructs from seven countries among 8796 respondents. A high positive association found between GSE and optimism, self-esteem and self-regulation. A negative association found between GSE and depression and anxiety.(Luszczynska, Gutiérrez- Doña, & Schwarzer, 2005) [8]

Self efficacy is defined as a quality that is effective in behaviours and individual's self judgment about himself regarding the capacity to organize necessary thing to carry out a performance and do it successfully (Bandura, 1997). Self efficacy has been explained as individual's expectations about himself regarding level of success when he faces a new situation (Tschannen-Moren and Woolfolk Hoy, 2001),[21], student's level of success and ability to teach about positive behaviours occurring from behaviours (Kiremit, 2006) One of the most important concepts regarding self efficacy is teachers' self efficacy beliefs. Teachers' self efficacy beliefs is defined as teachers' perception of ability to affect students' performance and showing necessary behaviours to do their duty successfully Teachers' self efficacy belief increases students' motivation to learn, affects forming higher perception of personality and their efforts to teach, aims and level of demand changes depending on self efficacy belief (Tschannen-Moran, Megan and Hoy, 2001) The area of knowledge that the teacher should excel is classified into five main categories: field knowledge, programme knowledge, teaching knowledge, personal knowledge and school-environment knowledge..(Shulman, 1986). The competencies of teacher comprise knowledge, skill, attitude and values related to the field of domain to carry the teaching learning process successfully and efficiently.[23]

3.3 Self-esteem

Morris Rosenberg, (1965) and Social-learning theorists defined self-esteem in terms of a stable sense of personal worth or worthiness, measurable by self report testing. [24]Nathaniel Branden (Branden, 1992) defined self-esteem as "the disposition of experiencing oneself as competent in coping with the basic challenges of life and as being worthy of happiness". This two-factor approach provides a balanced definition that seems to be capable of dealing with limits of defining Self-esteem primarily in terms of competence or worth alone. There are two components to Branden's definition. The first he calls self-efficacy: "confidence in the functioning of my mind, in my ability to think, understand, learn, choose, and make decisions; confidence in my ability to understand the facts of reality that fall within the sphere of my interests and needs; self-trust, self-reliance". The second is self-respect: "Self-respect means assurance of my value; an affirmative attitude towards my right to live and be happy; comfort in appropriately asserting my thoughts, wants and needs; the feeling that joy and fulfilment are my natural birthright". Branden's (1992) description of self esteem includes the following primary properties:

• Self-esteem as a human need for worthy existence.

• Self-esteem as an automatic and inevitable consequence of the sum of individuals' choices in using their consciousness.

f• Something experienced as a part of, or background to, all of the individual's thoughts, feelings and actions.



In his famous book, 'The power of self-esteem' Nathaniel Branden (1992) remarks that "self-esteem is the experience that we are appropriate to life and to the requirements of life. More specifically, self-esteem is :

1. Confidence in our ability to think and to cope with the basic challenges of life.

2. Confidence In our right to be happy, the feeling of being worthy, deserving, entitled to assert our needs and wants and to enjoy the fruits of our efforts".

According to Blascovich and Tomaka (1991)(Blascovich, J., & Tomaka, 1991) self-esteem refers to an individual's sense of his or her value or worth, or the extent to which a person values, approves of, appreciates, prizes, or likes him or herself [26]. Branden points that "positive self-esteem is the immune system of the spirit, helping an individual face life problems and bounce back from adversity".(Branden, 1992) [1]

"Self-esteem is how we value ourselves; it is how we perceive our value to the world and how valuable we think we are to others. Self-esteem affects our trust in others, our relationships, our work – nearly every part of our lives. Positive self-esteem gives us the strength and flexibility to take charge of our lives and grow from our mistakes without the fear of rejection.

IV. OBJECTIVE

To investigate the effect of certain personal variables of engineering professors namely gender, marital status and category of institution on self-esteem, general self-efficacy and teacher competence.

4.1 Samples and measures

Population of the study composed of teachers in engineering education leading to undergraduate degree in engineering colleges of Kerala. The data is collected from government engineering colleges, government aided engineering colleges and self- financing engineering colleges of Kerala. This research is concerned with the framework of teacher competence in connection with certain personal variables, general self-efficacy and self-esteem. The sample of 716 collected from the three political divisions of Kerala namely southern, central and northern districts of Kerala. This research relies on survey method to collect data. The inventory used to collect data in this research is developed from the standardised inventories from self esteem scale by Rosenber [25], General self efficacy scale by Ralf Shwarzer & Matthias Jerusalem [30] and teacher competence scale Ninsiima (2003) [29]. The inventory has 72 items measured on five- point scale consisting of ten items to measure self esteem, ten items to measure general self-efficacy and fifty two items to measure competences.

V. RESULTS AND DISCUSSION

5.1 HYPOTHESIS I

Null Hypothesis: There is no significant difference between male and female with respect to factors of Teacher Competence

 Table-1 t test for significant difference between male and female

 With factors of Teacher Competence



Factors of Teacher	Gender				t value	P value
Competence	Male		Female			
-	Mean	SD	Mean	SD		
Self Esteem	27.15	4.51	26.85	4.17	0.931	0.352
General Self Efficacy	32.65	4.59	31.76	4.93	2.431	0.015*
Subject Knowledge	25.71	2.93	26.18	2.75	2.191	0.029*
Evaluate Student's Performance	21.75	2.46	22.24	2.49	2.599	0.010**
Update Academic Programs	20.57	3.40	20.40	3.29	0.660	0.509
Design Curriculum	21.03	3.19	21.40	2.99	1.594	0.111
Project Guidance	21.13	2.97	21.00	3.34	0.561	0.575
Administer Lab and Test	21.76	2.74	22.11	2.75	1.663	0.097
Career and Academic Counselling	33.38	5.10	33.41	5.21	0.063	0.950
Overall Teacher Competence	165.33	17.89	166.74	17.95	1.027	0.305

Note: 1. ** denotes significant at 1 % level.

2.* denotes significant at 5 % level.

Since p value is less than 0.01, null hypothesis is rejected at 1 % level with regard to factors of teacher competence on evaluating student's performance by teachers. Hence there is significant difference between male and female teachers with regard to the factor of teacher competence on evaluation of student's performance by teachers. Based on the mean score, female teachers are better in evaluating student's performance than male in the factor of teacher competence.

Since p value is less than 0.05, the null hypothesis rejected at 5 % level with regard to General self-Efficacy, Subject knowledge skill of teachers in factors of teacher competence. Hence there is significant difference between male and female teachers with regard, Subject knowledge skill of teachers to the factor of teacher competence and General Self Efficacy of teachers. Based on the mean score, male teachers are better in General Self- Efficacy than female in the factor of teacher competence. Based on the mean score, female teachers are better in subject knowledge and skill than male teachers in the factor of teacher competence.

There is no significant difference between male and female teachers with regard to Self- esteem, update of academic programmes, Design Curriculum, Project Guidance, Administer Lab and Test, Career and Academic Counselling and Overall Teacher Competence in factors of teacher competence, since P value is greater than 0.05. Hence null hypothesis is accepted with 5 % level of significance with regard to factors of teacher competence.

5.2 HYPOTHESIS II

Null Hypothesis: There is no significant difference between married and unmarried with respect



to factors of teacher competence.

Factors of Teacher		Marital Status				p value
Competence	Married		Unmarried			
•	Mean	SD	Mean	SD		
Self Esteem	27.09	4.28	26.54	4.38	1.404	0.161
General Self Efficacy	32.04	4.79	32.35	4.90	0.719	0.473
Subject Knowledge	26.11	2.72	25.61	3.17	1.960	0.050*
Evaluate Student's Performance	22.13	2.48	21.78	2.51	1.561	0.119
Update Academic Programs	20.55	3.29	20.17	3.47	1.238	0.216
Design Curriculum	21.34	3.01	20.97	3.27	1.306	0.192
Project Guidance	21.18	3.12	20.56	3.42	2.147	0.032*
Administer Lab and Test	22.07	2.71	21.63	2.88	1.774	0.077
Career and Academic Counselling	33.58	4.99	32.74	5.71	1.789	0.074
Overall Teacher Competence	166.95	17.49	163.47	19.24	2.151	0.032*

Table 2. t test for significant difference between married and unmarried with respect to factors of teacher competence

Note: 1. ** denotes significant at 1 % level.

Since p value is less than 0.05, the null hypothesis rejected at 5 % level with regard to, Subject knowledge and skill of teachers, project guidance and overall teacher competence in factors of teacher competence. Hence there is significant difference between married and unmarried teachers with regard, Subject knowledge and skill of teachers, project guidance and overall teacher competence in factors of teacher competence Based on the mean score, married teachers are better in Subject knowledge and skill of teachers, project guidance and overall teacher competence in factors of teacher competence than unmarried teachers with respect to factors of teacher competence,

There is no significant difference between married and unmarried teachers with regard to Selfesteem, General self-efficacy, Evaluate Student's Performance ,update of academic programmes, Design Curriculum, Administer Lab and Test, Career and Academic Counselling and factors of teacher competence, since P value is greater than 0.05. Hence null hypothesis is accepted with 5 % level with regard to Self- esteem, General self-efficacy, Evaluate Student's Performance, update of academic programmes, Design Curriculum, Administer Lab and Test, Career and Academic Counselling **in** factors of teacher competence

5.3 HYPOTHESIS III

Null Hypothesis: There is no significant difference between government and self-financing with respect to factors of teacher competence.



Table 3 t test for significant difference between government and self-financing with respect to factors of teacher competence.

Factors of Teacher	Category of Institution				t value	P value
Competence	Government		Self Financing			
Ĩ	Mean	SD	Mean	SD		
Self Esteem	27.62	4.31	26.41	4.23	3.778	0.001**
General Self Efficacy	31.96	4.95	32.23	4.69	0.755	0.451
Subject Knowledge	25.95	2.72	26.04	2.92	0.438	0.661
Evaluate Student's Performance	21.96	2.46	22.13	2.51	0.892	0.373
Update Academic Programs	20.38	3.37	20.53	3.30	0.596	0.552
Design Curriculum	21.17	3.21	21.34	2.96	0.738	0.461
Project Guidance	20.84	3.42	21.23	2.98	01.623	0.105
Administer Lab and Test	21.86	2.86	22.07	2.66	0.987	0.324
Career and Academic Counselling	32.90	5.77	33.82	4.54	2.387	0.017*
Overall Teacher Competence	165.06	19.06	167.16	16.87	1.558	0.120

Note: 1. ** denotes significant at 1 % level.

2.* denotes significant at 5 % level.

Since p value is lea than 0.01, null hypothesis is rejected at 1 % level with regard to Self – Esteem on teacher competence. Hence there is significant difference between government and self-financing teachers with regard to the Self- esteem on teacher competence. Based on the mean score, government teachers are better in self- esteem on teacher competence.

Since p value is less than 0.05, the null hypothesis rejected at 5 % level with regard to Career and Academic Counselling of teachers in factors of teacher competence. Hence there is significant difference between government and self-financing teachers with regard, Career and Academic Counselling of teachers in factors of teacher competence. Based on the mean score, self-financing teachers are better in Career and Academic Counselling than government teachers in factors of teacher competence.

There is no significant difference between government and self-financing teachers with regard, General self-efficacy, subject knowledge and skill, Evaluate Student's Performance ,update of academic programmes, Design Curriculum, Project Guidance, Administer Lab and Test, and Overall Teacher Competence in factors of teacher competence , since P value is greater than 0.05. Hence null hypothesis is accepted with 5 % level with regard to General self-efficacy, subject knowledge and skill, Evaluate Student's Performance ,update of academic programmes, Design Curriculum, Project Guidance, Administer Lab and Test, and Overall Teacher Competence in factors of teacher self-efficacy and skill, Evaluate Student's Performance ,update of academic programmes, Design Curriculum, Project Guidance, Administer Lab and Test, and Overall Teacher Competence in factors of teacher competence for academic programmes, Design Curriculum, Project Guidance, Administer Lab and Test, and Overall Teacher Competence in factors of teacher competence for academic programmes, Design Curriculum, Project Guidance, Administer Lab and Test, and Overall Teacher Competence in factors of teacher competence



VI. DISCUSSION

It may be inferred that gender is playing vital role in general self efficacy because in India female are treated differently than male and female have to play dual roles, housewife as well as working women, they have more responsibilities so it may be one of the reasons for lower general self-efficacy scores of female. Hence conclude that teachers' general self-efficacy on competence is affected by gender.

To contribute wider perspectives to research the study also examined the influence of marital status and category of institutions. There is significant difference between married and unmarried teachers with regard to teacher competence. Hence there is effect of teacher competence 0n marital status.

There is significant difference between government and self-financing teachers with regard to the Self- esteem on teacher competence. Based on the mean score, government teachers are better in self- esteem on teacher competence. May be it is because of government college professors have job security, timely promotions, monetary benefits which stabilizes their life and worthy feeling towards life.

VII. CONCLUSION

- The study establishes the difference in self-esteem between government and nongovernment teachers in engineering colleges across Kerala.
- The study also predicts that marital status has significant impact on teacher competence.
- Further adds an important that career and counselling dimension of teacher competence differs significantly between government and non-government engineering colleges.
- In private colleges professors are responsible for the character and graduating grades of the students.
- Professors in private colleges work more towards counselling activities to bring better grades in students' performance hence career and counselling shows significant effect between categories of institutions.

REFERENCE

- [1] Branden, N. (1992). *Power of Self Esteem*. Barnes \& Noble Books.
- [2] Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice Hall.
- [3] Bandura, A. (1997). Self-efficacy: The exercise of control. New York: Freeman.
- [4] Boyatzis, R. E. (1982). The competent manager: A model for effective performance. John Wiley \& Sons.
- [5] Wood, R., & Bandura, A. (1989). (1989). Impact of conceptions of ability on self-regulatory mechanisms and complex decision making. *Journal of Personality and Social Psychology*, 56(3), 407., 56(3), 407.
- [6] McClelland, D. . (1973). Testing for competence rather than for "intelligence". *The American Psychologist*, 28(1), 1–14. https://doi.org/10.1037/h0038240



- [7] Schley, D. G., Lucia, A. D., & Lepsinger, R. (1999). The art and science of competency models: *Pinpointing critical success factors in organizations.* jstor.
- [8] Luszczynska, A., Gutiérrez- Doña, B., & Schwarzer, R. (2005). General self- efficacy in various domains of human functioning: Evidence from five countries. *International Journal of Psychology*, 40(2), 80–89. https://doi.org/10.1080/00207590444000041
- [9] Dubois, D. D. (1993). Competency-Based Performance Improvement: A Strategy for Organizational Change. ERIC.
- [10] Verma, Sarita and Paterson, Margo and Medves, J. (2006). Core competencies for health care professionals: what medicine, nursing, occupational therapy, and physiotherapy share. *Journal of Allied Health*, 35(2), 109–115.
- [11] Barr, H. (1998). Competent to collaborate: towards a competency-based model for interprofessional education. *Journal of Interprofessional Care*, 12(2), 181–187.
- [12] Eden, D. (1988). Pygmalion, goal setting, and expectancy: Compatible ways to raise productivity. *Academy of Management Review*, 13, 639-652., 13, 639-652.
- [13] Eden, D. (2001). Means efficacy: External sources of general and specific subjective efficacy. In M. Erez, U. Kleinbeck,&H. Thierry (Eds.), Work motivation in the context of a globalizing economy. Hillsdale, NJ: Lawrence
- [14] Judge, T. A., Bono, J. A., &Locke, E. A. (2000). Personality and job satisfaction: The mediating role of job characteristics. *Journal of Applied Psychology*, *85*, 237–249.
- [15] Judge, T. A., Erez, A., & Bono, J. E. (1998). The power of being positive: The relation between positive self-concept and job performance. *Human Performance*, 11(2-3), 167-187., 11(2-3), 167-187.
- [16] Judge, T. A., Locke, E. A., &Durham, C. C. (1997). The dispositional causes of job satisfaction: A core evaluations approach. *Research in Organizational Behavior*, 19, 151–188.
- [17] Gardner, D. G., & Pierce, J. L. (1998). Self-esteem and self-efficacy within the organizational context an empirical examination. *Group & Organization Management*, 23(1), 48–70.
- [18] Sherer, M.,&Adams, C. H. (1983). Construct validation of the Self-Efficacy Scale. *Psychological Reports*, 53, 899–902.
- [19] Shelton, S. H. (1990). Developing the construct of general self-efficacy. *Psychological Reports, 66,* 987–994.
- [20] Chen, G., Gully, S.M., & Eden, D. (2001). Validation of a New General Self-Efficacy Scale. Organizational Research Methods, 4(1), 62–83. https://doi.org/10.1177/109442810141004
- [21] Tschannen-Moran, Megan and Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17(7), 783–805.
- [22] Kiremit, H. (2006). Preservice science teachers' self efficacy beliefs in teaching biology. *Unpublished Master Thesis*), {\.*I*}*zmir: Dokuz Eyl*{"*u*}*l University.*
- [23] Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, *15*(2), 4–14.
- [24] Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.
- [25] Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton university press. (Vol. 11).
- [26] Blascovich, J., & Tomaka, J. (1991). Measures of self-esteem. *Measures of Personality and Social Psychological Attitudes*, 1, 115-160., 1, 115-160.



- [27] Fogg, C. D. (1999). *Implementing your strategic plan: How to turn" intent" into effective action for sustainable change*. AMACOM Div American Mgmt Assn.
- [28] Jerusalem, M., & Schwarzer, R. (1992). Self-efficacy as a resource factor in stress appraisal processes. In R. Schwarzer (Ed.), *Self-efficacy: Thought control of action* (pp. 195-213). Washington, DC: Hemisphere
- [29] Ninsiima, J.K. (2003), "Competencies, perceived justice, task performance and organisational citizenship behaviour in Uganda Revenue Authority", MBA dissertation.
- [30] Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). Windsor, UK: NFER-NELSON.