Comparison of Self-Efficacy Levels of the Teachers of Agricultural Universities at Faisalabad and Rawalpindi

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ABSTRACT

Teachers are the indispensable ingredients in the efficient performance of education system and enhancing the quality of learning process. Teachers having powerful sense of self-efficacy are internally motivated and supplementary want to challenge themselves by complex tasks. Self-efficacy as a teacher is combination of behavioral, cognitive, emotional and cultural aspects. All these four aspects are strongly interrelated with each other. Self-efficacy is dogged by level of skills in a specific domain, as well as by our past achievements and experiences equally positive and negative. The study was conducted to find out the self-efficacy levels of the teachers of agricultural universities at Faisalabad under three specific domains such as teaching, research and management. The data was collected from the teachers of common departments in both the sampled universities. A questionnaire as a tool of research was used to collect the data. Data was analyzed by using T- Test and ANOVA test. Analysis of the data yielded that the self-efficacy levels of the respondents of University of Agriculture Faisalabad is higher than the self-efficacy levels of the respondents of Pir Mehr Ali Shah Arid Agriculture University Rawalpindi.

Keywords: Self-Efficacy, Comparison, Teachers, Agricultural universities

INTRODUCTION

Teachers who reflect success scenarios when face challenging instances in their teaching is depend on their high efficacy level. Self-efficacy is the individual's beliefs that what he can do in a specific task, the task may be challenging or beyond the ability of an individual. Teachers' self-efficacy is relevant to their everyday well-being, and the higher this self-efficacy is, the more successful their career would be. Teachers with a high sense of instructional efficacy work from the idea that it is possible. In contrast, teachers with a low sense of instructional efficacy have a tendency to believe that teachers can do little to help low-achieving students. Research investigated that students do better when they have teachers who are high in self-efficacy than with teachers who doubt their efficacy as teachers. Teachers who are having high self-efficacy tend to believe that they can reach slow learners by using appropriate methods and by encouraging more work. Self-efficacy is also relevant to solving problems in the classroom through effective management techniques.

A construct similar to teacher self-efficacy was first introduced by the work of Rotter (1966) and labeled the locus of control. It was defined as "extent to which teachers believe that they could control the reinforcement of their actions, that is, whether the control reinforcement lay within themselves or in the environment" (Tschannen-Moran *et al,* 1998). The capability to probe task demands, to build and evaluate alternative courses of actions to set goals, and to initiate and sustain effort are regarded as self-regulatory skills that direct various types of successful performances. Co-variation of self-efficacy beliefs may also be the consequence if the beliefs are developed at the same time and space. (Bandura, 2006)

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It can be described as the belief in the capability to *"plan, organize and carryout activities required to attain given educational goals"* (Skaalvik and Skaalvik, 2007). The term teacher efficacy was first derived by RAND investigators when they built-in items that were two in numbers in a survey that reflected the locus of control constructs presented. Locus of control directs to the degree of believe by a person that the reflected cause(s) of probable consequences are under his or her control (Armor *et al*., 1976).

Self-esteem, self-concept and self-efficacy are regarded as main constructs of motivation. Motivation is usually described as energizing or directing behavior. Directing the behavior and most literally regulating persistence of behavior. Motivation is not a static attribute of a person but is supplementary located, contextual and precise in domain. In other terminology, not only teachers are motivated in diverse ways, but their motivation can vary depending on the circumstances in the classroom. However this hypothesis makes it extra multifaceted for research and assessment efforts, so ultimately the teacher motivation is perceived as being innately unstable and also sensitive to the context.

Intrinsic motivation and extrinsic motivation are regarded as two major types of motivation. Intrinsic motivation is a natural motivational tendency and is a critical element in cognitive, social, and physical development (Ryan *et al,* 2000). Students who are intrinsically motivated are more likely to engage in the task willingly as well as work to improve their skills, which will increase their capabilities (Wigfield *et al*. 2004). Extrinsic motivation refers to the performance of an activity in order to attain an outcome, whether or not that activity is also intrinsically motivated. Competition is in an extrinsic motivator because it encourages the performer to win and to beat others, not simply to enjoy the intrinsic rewards of the activity. A cheering crowd and the desire to win a trophy are also extrinsic incentives (Dewani, *et al,* 2013).

The self-differentiates every individual as a unique individual and separates us from one another. It lies at the core of who we are. According to Shunk 2005, self is no single entity; rather we made up many selves and dimensions the self is most commonly attached to other word as in self-concept, self-control, self-efficacy, self-esteem or self-help. Our self-esteem could be high, low or positive; negative that is common endorsement or dissatisfaction of what we feel we are. Researches indicate a positive association between self-esteem and achievement, but the relationship varies with age.

A third dimension of self relates to individuals beliefs about their ability to perform tasks successfully. This is regarded as self-efficacy. Self-efficacy is dogged by level of skills in a specific domain, as well as by our past achievements and experiences equally positive and negative. Usually individuals with a well-built sense of efficacy are confident regarding their ability to deal with complex challenges and stressor in a specific domain or series of context. While individuals having low self-efficacy beliefs frequently feels themselves powerless and unskilled and also not having self-confidence. Depression, anxiety and feelings of hopelessness are usually experienced due to low self-efficacy. "Self-efficacy is the most important predictor of change in behavior" (Lenz and Shortridge-Baggett, 2002).

Self-efficacy beliefs can enlarge human triumph and being in various directions. Pajares 2002 states that they manipulate choices people make and the pattern of behavior they peruses. Individuals lean to choose task and activities in which they show interest and are motivated. Unless the belief of people that their action will have expected consequences, they are ingrained on the hub belief that one has the ability to achieve that act. Observed self-efficacy or individual's beliefs concerning their capabilities to seek or behave at selected level, play significant part in motivation and learning as well (Schunk, 2003).

Self-efficacy was introduced as a fundamental element in Social Cognitive Theory, motivation of human is principally in terms of outcome expectations is the idea investigated by this theory. During the handling of overanxious subjects through techniques including mastery modeling, individual differences were found apart from the reality that all subjects could prolifically interact with the object of their fear 9 e.g., touch a snake or dog) (Bundara, 1977).

It is linked with the degree of task complexity that a person believes competent of executing. However, you believe that you are competent or not (yes, no) of performing this task next time at each of the levels outlined in the scale or questionnaire. The levels of complexity are measured through self-efficacy magnitude (Van Der Bijl and Shortridge-Baggett, 2002).

Individuals are presented with self-efficacy scale representing tasks varying in difficulty, complexity, strengthens or in some other dimension depending on the specific domain of functioning being explored. They designate the tasks they judge they can do their level of certainty that they can execute them. We must safeguard against "whether self-efficacy probes can affect performance by developing public commitment and pressure for consistency. Veridical self-appraisal is best achieved under situations that reduce concern over social evaluation. When social evaluation of people's efficacy judgments is made salient, they are inclined to become conservative in their self-appraisals (Pajara, 2002).

As component of the Social Learning Theory Albert Bandura developed the concept of self-efficacy which has progressed into the Social Cognitive Theory (Levin, Culkin and Perrotto, 2001). Diverse aspects like moral judgment and physiological arousal are covered by self-efficacy and research is mainly focused on the beliefs concerning one's capabilities of completing tasks or goals successfully or on self-efficacy (Locke and Latham, 2002).

According to Bandura 2005 social cognitive theory takes as an agentic viewpoint to alter or develop. He further states that who deliberately influences one's functioning and life circumstances is liked by an agent; in this regard, people are self-organizing, practical, self-governing and self-reflecting. They are contributors' not just products of them to their life circumstances. Self-efficacy is the major construct of motivation and by nature these constructs are diverse. The major construct of motivation are self-concept, self-esteem and self-efficacy.

As described by a researcher "the sharp realities between the 'observed' and the 'expected' in teaching is consequently rude awakening from an idealistic dream and the shattering of anticipations of a satisfying professional career of service. Finding ways to alleviate burnout and stress could improve teachers' levels of self-efficacy, resulting in higher teacher persistence in the profession (Friedman, 2000).

Teachers who are strongly emotional have greater anticipation regarding outcome of a situation, which can predispose teachers to viewing life events in a negative direction, thus ultimately lowering self-efficacy. In other words, viewing events in a negative direction may lower a teacher's sense of worth, consequently impacting the level of self-efficacy (Kokkinos, 2007). Teachers who are conscientious exhibit higher levels of teacher accomplishment, causing a higher level of correlation between conscientiousness and accomplishments (Kokkinos, 2007). Conscientious can be defined as the tendency to behave in certain ways to a situation under certain circumstances, or the thinking ability, and behave in consistent fashion across varying situations (Leary and Hoyle, 2009).

Tschannen-Moran and colleagues have performed numerous studies (Tshannen-Moran, Woolfolk Hoy, & Hoy, 1998) on self-efficacy including creating the "*Teachers' Sense of Efficacy Scale*" (TSES) (Tshannen-Moran & Woolfolk Hoy, 2001). They expanded the

social-cognitive theory in that they added that teachers' senses of self-efficacy reflect their judgments on their capabilities within a specific parameter, being their discipline or the student population (Silverman & Davis, 2006). They believe that self-efficacy beliefs of teachers will *"transfer to the extent that he or she perceives similarity in the task resources and constraints from one teaching situation to another"*.

OBJECTIVES

1. To assess the self-efficacy levels of the teachers of Agricultural universities at Faisalabad and Rawalpindi under some specific domains such as teaching, research and management.

2. Describe the variance between level of experience and the perceived level of teachers' self-efficacy.

HYPOTHESES

H_1= There is significant difference between the self-efficacy levels of the teachers of Agricultural universities at Faisalabad and Rawalpindi regarding teaching.

H_2= There is significant difference between the self-efficacy levels of the teachers of Agricultural universities at Faisalabad and Rawalpindi regarding research.

H_3= There is significant difference between the self-efficacy levels of the teachers of Agricultural universities at Faisalabad and Rawalpindi regarding management.

H_4= There is significant difference between the level of experience and the perceived level of teacher self-efficacy.

MATERIALS AND METHODS

Population and Sample

In this study the population comprised of all the university teachers of two selected agricultural universities at Faisalabad and Rawalpindi cities of Pakistan. The sample of the research was 100 (59.9%) teachers from University of Agriculture Faisalabad and 67 (40.1%) teachers from Pir Mehr Ali Shah Arid Agriculture University Rawalpindi were selected from twenty common departments. The technique of proportionate stratified sampling was used in this study**.**

Data Collection

A questionnaire used as tool of research was used on five point Likert-scales. The 34 items in this scale reflected three domains of teaching such as teaching, research and management. Pilot study was done on a sample of 24 teachers. In this regard some modifications were drawn. Judgmental validity is assured by a group of experts. Empirical data was collected after an institutional approach. The teachers of both the sampled universities cooperated. The data was collected from 100 teachers from University of Agriculture Faisalabad and 67 teachers from Pir Mehr Ali Shah Arid Agriculture University Rawalpindi.

Data Analysis

Before analyzing the empirical data the researcher briefly describe the personal characteristics of respondents. To see the background, the gender participation and associated characteristics. Some noteworthy characteristics of respondents are that there is high proportion of male teachers which were 89 (89%) from university of agriculture Faisalabad 39 (58.20%) from arid agriculture university Rawalpindi. The female ratio in the sample was

11 (11%) from university of agriculture Faisalabad and 28 (41.79%) from Arid Agriculture university Rawalpindi.

FINDINGS

Table 1. Self-efficacy levels of university teachers

Domains	Universities	Mean	Std. D	Sig.	T	F	Sig. (2-tailed)
Teaching	UAF	45.4900	6.75621	0.23	1.828	5.251	.069
	PMAS-UAAR	43.8358	4.92550				
Research	UAF	37.0200	37.0200	.179	.055	1.819	.956
	PMAS-UAAR	36.9701	36.9701				
Management	UAF	47.5300	8.08222	.398	6.992	.718	.000
	PMAS-UAAR	39.4627	6.74049				

Table 1 shows the mean value of university of agriculture Faisalabad is 45.4900 with standard deviation 6.75621. Hence the mean value of Pir Mehr Ali Shah Arid Agriculture University is 43.8358 with standard deviation 4.92550. The p value .069 which is greater than alpha value 0.05 shows no significant difference. So it rejects the hypothesis no. 1 that there is significant difference between the self-efficacy levels of teachers of agricultural universities Faisalabad and Rawalpindi regarding teaching.

Whereas the mean value of the University of Agriculture Faisalabad is 37.0200. The mean value of Arid Agriculture University Rawalpindi is 36.9701. The p value .956 which is greater than alpha value 0.05 shows no significant difference. So it rejects the hypothesis no. 2 that there is significant difference between the self-efficacy levels of teachers of agricultural universities Faisalabad and Rawalpindi regarding research.

And the mean value of the University of Agriculture Faisalabad is 47.53000 with standard deviation 8.08222. The mean value of Pir Mehar Ali Shah Arid Agriculture University Rawalpindi is 39.4627 with standard deviation 6.74049. The p value .000 which is less than alpha value 0.05 shows significant difference. So it accepts the hypothesis no. 3 that there is significant difference between the self-efficacy levels of teachers of agricultural universities Faisalabad and Rawalpindi regarding management.

Table 2. Variance between level of experience and the perceived level of teachers' self-efficacy

Domain	Experience In years	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Teaching	1- 5	-1.74242	1.18412	.143	-4.0806	.5958
	6- 15	1.74242	1.18412	.143	-.5958	4.0806
	16-25	2.21390	1.38925	.113	-.5293	4.9571
	26-40	3.33794*	1.56547	.034	.2467	6.4292

Table 2 shows the mean difference for the experience 1-5 years is -1.74242 with standard error 1.18412. Further, 95% confidence interval shows the limit. The p value .143 which is greater than alpha value 0.05 shows no significant difference. The mean difference for the experience 6-15 years is 1.74242 with standard error 1.18412. The p value .143 which is greater than alpha value 0.05 shows no significant difference. The mean difference for the experience 16-25 years is 2.21390 having standard error 1.38925. The p value .113 which is greater than alpha value 0.05 shows no significant difference. The mean difference for the experience 20-40 years is 3.33794 with standard error 1.56547. The p value .034 which is less than alpha value 0.05 shows significant difference. Further, 95% confidence interval shows the limit. So it rejects the hypothesis no. 5 that there is significant difference between the level of experience and the perceived level of teacher self-efficacy.

Table 3. Variance between level of experience and the perceived level of teachers' self-efficacy

Domain	Experience In years	Mean difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
	1- 5	-1.74242	1.07345	.106	-3.8621	.3772
	6- 15	1.74242	1.07345	.106	-.3772	3.8621
Research	16-25	.82353	1.25940	.514	-1.6633	3.3104
	26 -40	1.04348	1.41915	.463	-1.7588	3.8458

Table 3 shows the mean difference for the experience 1-5 years is -1.74242 with standard error 1.07345. The P value .106 which is greater than alpha value 0.05 shows no significant difference. The mean difference for the experience 6-15 years is 1.74242 with standard error 1.07345. The P value .106 which is greater than alpha value 0.05 shows no significant difference. The mean difference for the experience 16-25 years is .82353 with standard error 1.25940. The P value .514 which is greater than alpha value 0.05 shows no significant difference. The mean difference for the experience 26-40 years is 1.04348 with standard error 1.41915. The P value .463 which is greater than alpha value 0.05 shows no significant difference. Moreover, 95% confidence interval shows the limit. So it rejects the hypothesis no. 5 that there is significant difference between the level of experience and the perceived level of teacher self-efficacy.

Table 4. Variance between level of experience and the perceived level of teachers' self-efficacy

Domain	Experience In years	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
	1- 5	-3.26515*	1.64535	.049	-6.5141	-.0162
	6- 15	3.26515*	1.64535	.049	.0162	6.5141
Management	16-25	2.51203	1.93038	.195	-1.2997	6.3238
	26-40	4.72431*	2.17524	.031	.4290	9.0196

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Table 4 shows the mean difference for the experience 1-5 years is -3.26515 with standard error 1.64535. The P value .049 which is less than alpha value 0.05 it shows significant difference. The mean difference for the experience 6-15 years is 3.26515 with standard error 1.64535. The P value .049 which is less than alpha value 0.05 shows significant difference. The mean difference for the experience 16-25 years is 2.51203 with standard error 1.93038. The P value .195 which is greater than alpha value 0.05 shows no significant difference. The mean difference for the experience 26-40 years is 4.72431 with standard error 2.17524. The P value .031 which is less than alpha value 0.05 shows significant difference. Moreover, 95% confidence interval shows the limit. So it accepts the hypothesis no. 4 that there is significant difference between the level of experience and the perceived level of teacher self-efficacy.

CONCLUSIONS

The following major conclusions were drawn:

1. The self-efficacy level of teachers of University of Agriculture Faisalabad is higher than the self-efficacy levels of the teachers of Pir Mehr Ali Shah Arid Agriculture University Rawalpindi regarding teaching.

2. The self-efficacy level of teachers of University of Agriculture Faisalabad is higher than the self-efficacy levels of the teachers of Pir Mehr Ali Shah Arid Agriculture University Rawalpindi regarding research.

3. The self-efficacy level of teachers of University of Agriculture Faisalabad is higher than the self-efficacy levels of the teachers of Pir Mehr Ali Shah Arid Agriculture University Rawalpindi regarding management.

4. There is significant difference between the level of experience and the perceived level of teacher self-efficacy.

RECOMMENDATIONS

Observed in the context of findings, following recommendations were generated:

1. Opportunities to enhance self-efficacy levels of the teachers at higher education level may be provided in the shape of training sessions both at national and international level.

2. The administrative duties/tasks of the teachers may be reduced so that they may concentrate on teaching and research activities to facilitate students effectively.

3. Proper allocation of resources in the shape of money, man and material may be provided for the better training of teachers at higher education level.

4. Incentives may be used as a positive reinforcement to motivate teachers.

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