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SELF-EFFICACY AS RELATED TO GENDER, TEACHING EXPERIENCE AND CHANGE PRONENESS AMONG SECONDARY SCHOOL TEACHERS

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Abstract

All the teachers have the ability to teach but what is more important is the belief in their ability to teach. The present research study was undertaken to investigate self-efficacy of secondary school teachers and how it is influenced by gender, teaching experience and change proneness. Descriptive survey method was employed for the present investigation. Incidental sampling technique was used to select the sample of 1048 teachers from eight districts of Himachal Pradesh. Change Proneness Inventory by Dr. M. Mukhopadhhyay (2012)and self-developed teacher self-efficacy scale were used to collect data. The data were analyzed by descriptive statistics and two way analysis of variance. It was revealed that the male teachers were more self-efficacious as compared to female secondary school teachers. Change proneness was found to be a significant variable in influencing self-efficacy of secondary school teachers in a positive manner. None of the interactional effects was found to be significant.

Keywords: *Self-Efficacy, Change Proneness.*

Introduction

Self-efficacy is sometimes confused or used synonymously with self-esteem. Although both are components of self-referent thought, yet are very different constructs. Self-esteem typically taps an individual's self-evaluation (and not merely one's confidence judgments) across a wide variety of situations. Thus, it refers to a sense of personal worth, it is an internal feeling of personal well-being. It is an affective evaluation of the total self, a feeling of self-liking. By contrast, self-efficacy is a judgment about task capability that is not inherently evaluative. It pertains to the belief, judgment or determination to perform certain behaviours in certain situations. For example; a college student may have very low self-efficacy pertaining to dancing, yet may decide on reflection that it does diminish his or her overall evaluation and feelings about the self. Bandura (1986) defines two related but distinct

components of self-efficacy: efficacy expectations and outcomes expectations. Efficacy expectations are beliefs about one's capabilities to accomplish specific tasks. Outcome expectations refer to belief about the likelihood that certain behaviours will result in desired outcomes. Bandura argues that if adequate leaves of ability and motivation exist, self-efficacy will affect a person's task initiation and persistence. Weak efficacy belief can contribute behaviour avoidance, whereas strong efficacy beliefs can promote behaviour initiation and persistence. Self-efficacy thus, is nothing but a "can do", cognition which mirrors a sense of control over one's environment. It reflects the belief of being able to control challenging environmental demands by taking adaptive action. Self-efficacy is concerned with beliefs of personal capability; they are judgments of one's capabilities to perform given actions.

Change proneness is though quite recent in origin with astonishing rapidity has become almost a catch word. Change Proneness can be defined as a tendency to accept anything which is new, novel to be imbibed to their style of work. Change proneness is state of acceptance of new and creative ideas, which might at times create criticism and failure or result at appreciation and success. It is a sense of satisfaction, commitment and success in the quest for new techniques, ideas and methods. Change proneness can be defined as state of flux and dilemma brought about by devotion to a cause or a way of life which may promote to result at change proneness among teachers.Miller rightly gave the comprehensive nature of the concept. Radical change, innovativeness, tendency to inquire, being shrewd and proneness in thoughts, inquisitiveness; all these traits facilitate change proneness.The change proneness evidently relies upon two opposing ideological aspects; rigidity and flexibility. The main hurdle to accept a new theory and invite a novel, sudden change is rigidity. Warner defined 'Rigidity' as lack of variability in a response or lack of adaptability in behaviour. The dictionary meaning of rigidity is personality trait characterized by inability to change one's attitudes, opinions or manner of adjustment. Wolfforth opined - rigidity is restricted range of behaviour as this type of rigidity prevails in human minds; they act as stumbling blocks and hurdles. They approve one to have a new concept, alert the type of learning, to invite change in approaches.The opposing ideological aspect for rigidity is flexibility a personality trait characterized by ability to change one's set, opinion, line of thinking and process of adjustment. Exhibiting inclination to a new and strange thing will be possible and it is due to flexibility. In life situations, some people are flexible in their behaviour and some are not. The people who are flexible on one occasion may not be much flexible on other occasions. They at times be flexible and alter their responses and behavioural patterns. But they decline at times to be flexible and then they stick to old ideologies. Flexibility is the outstanding

quality of exhortative tendency and ability to change one's set or attitude and opinions.There is hardly any field which is not within the ambit of change. Great many changes have taken place in all spheres of human life. Education is not exception to this. The changes that take place in socio-economic scenario of any country leaves a large impact on the education scenario of that country as the socio-economic conditions and the educational institutions are mutually dependent on one another. Any change, even if minor in intensity, in social or economical conditions pressurize the education system to accept it and adapt it accordingly and the converse of the same is also true. The present scenario, if seen from any angle witnesses changes due to developments in the field of science and technology which also affects the society in general and the education in particular. For improving the quality and excellence in education, the role of teacher is of utmost significance. Teacher is the pivot for uplifting the standards of education. The teacher should possess higher self-efficacy beliefs which will contribute towards their confidence level, thereby increasing their performance outcomes. It may further lead to improved commitment among teachers towards their profession. For improving the performance output of the teachers, they should be highly professionally committed and self-efficacious. However, in the current fast changing socio-economic scenario where a large number of changes are taking place at a greater pace, every individual has to make adjustments to new changes in his personal and professional life. As a result of frequent changes and while making adjustments to the same, there is greater probability of arising conflicts among the teachers. Hence, it is of vital importance that teacher must have the tendency to accept the changes and imbibe them in their works. This tendency or inclination to accept new changes is referred to as change proneness. The teachers should be prone to changes and accept new and novel changes in their functioning with a strong sense of efficacy which will ultimately lead to higher professional commitment and performance output. A glance over the theoretical and research literature revealed that not much academic efforts have been made to study the impact of change proneness among teachers on their professional commitment and self-efficacy.

It was reported by Richardson (2002) that teachers with more years of experience in using the computer were found to have more positive attitudes toward technologies and higher levels of self-efficacy practices. Younger teachers were found to have more positive attitudes toward technologies. Gender was not found to be a significant predictor of the teachers' attitudes toward technologies, self-efficacy, and innovativeness. Arulsamy (2008)revealed that the secondary school teachers of Vellakoil union had a good measure of self-efficacy in teaching but their self-efficacy differed in terms of gender. Tuchman(2010)

revealed that formal teacher training was most strongly associated with efficacy for the instructional practice, while the informal experiences were most strongly associated with efficacy for student engagement. Kumar and Papaiah (2012) reported that there is significant variation between the self-efficacy in respect of high school teachers working in zila parishad high schools and those working in private un-aided high schools. Younger (2012) indicated that levels of teaching efficacy in classroom management and student engagement were not significantly based upon whether or not the faculty member held a teaching degree. However, a statistically significant difference was found among those faculties who held a teaching degree for their level of instructional practices efficacy. Jimison (2012) revealed a statistically significant relationship between teachers' self-efficacy and student achievement. The subscale in this study which was most highly correlated with teachers' self-efficacy was efficacy in student engagement. Kilimo (2014) showed that teachers with low self-efficacy faced more problems with the implementation of inclusive education. Hascher and Hagenauer (2016) indicated that self-efficacy was significantly related to the valence of emotional experiences. Enjoyment in teaching practicum was positively predicted by self-efficacy, whereas anxiety was negatively predicted. Apart from this, there is much lack of studies in the area of change proneness among teachers. Mukhopadhyay and Saxena (1980) in their research study on the factors contributing to teachers' change-proneness concluded that change-proneness has been found to be related significantly and positively to urban background, teachers' relations with principal, satisfaction in teaching, rapport among teachers, perceived leadership behaviour of the principal, attitude toward teaching profession, perceived status of teachers and job satisfaction. Vinaitheerthan (1981) concluded that age of teachers, sex, teaching experience and professional training influenced the state of dissonance of innovations and controlled climate significantly contributed to teaching-learning process, attitude to innovation, change proneness and intimacy. Open climate showed significant relationship with complexity, conservation and change proneness.Rao (1999) in a study of change proneness among primary school teachers as determining factor to meet the needs of hard-to-reach pupils concluded that male teachers were high change-prone than that of female teachers. B.Ed. assistant trained teachers lag behind trained graduate teachers. Teachers of municipal schools were high change prone than that of the teachers of missionary and mandal parishad schools. Reddy (2004) concluded that there is significant differences between male and female teachers, rural and urban counterparts and experienced and in experienced teachers in terms of their change proneness. On the basis of a thorough review, it was decided to study the impact of change proneness on self-efficacy of secondary school teachers and

how gender and teaching experience contribute to self-efficacy among teachers. The study was carried out with following objectives.

Objectives

1. To study the gender-wise difference in self-efficacy level of secondary school teachers.
2. To study the difference in self-efficacy level of secondary school teachers with respect to their level of change proneness.
3. To study the interaction between gender and level of change proneness with respect to self-efficacy level of secondary school teachers.
4. To study the difference in self-efficacy level of secondary school teachers with respect to their teaching experience.
5. To study the interaction between teaching experience and level of change proneness with respect to self-efficacy level of secondary school teachers.

Hypotheses

1. Male and female secondary school teachers will not differ significantly in their self-efficacy.
2. There will be significant difference in self-efficacy of secondary school teachers with different levels of change proneness.
3. Gender and level of change proneness will not interact significantly with respect to self-efficacy of secondary school teachers.
4. There will be no significant difference in self-efficacy of secondary school teachers with respect to their teaching experience.
5. Teaching experience and level of change proneness will not interact significantly with respect to self-efficacy of secondary school teachers.

Methodology

"Descriptive Method of Research" was used for carrying out present study.

Sampling

In the present investigation, a representative sample of 1048 teachers (514 Males and 534 Females) of secondary school teachers from Hamirpur, Shimla, Kullu, Una, Bilaspur, Mandi, Kangra and Lahaul-Spiti districts of Himachal Pradesh was selected by applying incidental sampling technique.

Research Tools Used

- *Change Proneness Inventory by Dr. M. Mukhopadhhyay (2012).*
- *Self- Developed Teachers' Self-Efficacy Scale.*

Analysis of Data

The data were analyzed with the help of descriptive statistics and two way analysis of variance.

Findings of the Study

1. In order to study the main effects of gender and level of change proneness on self-efficacy of secondary school teachers along with their interactional effect, analysis of variance (2x3 factorial design involving two types of gender i.e. male and female and three levels of change proneness i.e. high, moderate and low) was applied on weighted mean self-efficacy scores. The selected teachers were classified on the basis of their change proneness scores by employing the procedure of M ± ½ S.D. The weighted mean self-efficacy scores of male and female secondary school teachers with respect to their level of change proneness are given in Table 1:

Table 1 Mean Self-Efficacy Scores of Male and Female Secondary School Teachers with Different Level of Change Proneness

Sr. No.	Level of Change Proneness (B) Gender (A)		Mean Self-Efficacy Scores			
			High Level (322)	Moderate Level (448)	Low Level (278)	Total (1048)
1	Male (514)	Mean	252.49	242.34	222.38	241.25
		S.D.	22.997	23.258	29.568	27.110
		N	175	222	117	514
2	Female (534)	Mean	248.22	237.09	219.93	234.98
		S.D.	21.353	26.802	26.503	27.526
		N	147	226	161	534
3	Total (1048)	Mean	250.54	239.69	220.96	238.06
		S.D.	22.329	25.218	27.809	27.489
		N	322	448	278	1048

From the mean self-efficacy scores of male and female secondary school teachers with respect to their level of change proneness, F-values were calculated. The results are given in Table 2.

Table 2 Summary of the Results of Analysis of Variance for Self-Efficacy of Secondary School Teachers

Sr. No.	Source of Variation	Sum of Squares	d_f	Mean Square (Variance)	F-Ratio
1.	Gender (A)	3956.258	1	3956.258	6.308**
2.	Change Proneness (B)	127000.500	2	63500.250	101.240**
3.	Interaction (AxB)	330.998	2	165.499	0.264^{NS}
4.	Error Variance	653570.338	1042	627.227	
5.	Total	784858.094	1047		

NS - Not Significant

** - Significant at 0.01 level of significance.

The calculated value of 'F' for the main effect of gender on self- efficacy of secondary school teachers, irrespective of their level of change proneness, for d_f 1 and 1042, came out to be 6.308 which is greater than the table value (3.85) at 0.05 level of significance. Although, the computed F-value is somewhat less than the Table value of F (6.65) at 0.01 level of significance, for d_f 1 and 1042. Hence, the Hypothesis that, "Male and female secondary school teachers will not differ significantly in their self- efficacy," was not accepted.Therefore, it may be interpreted that there existed significant difference in self-efficacy of male and female secondary school teachers. The male teachers had shown significantly higher mean self-efficacy score (241.25) and thus, are significantly more self-efficacious as compared to female secondary school teachers who had shown mean self-efficacy score of 234.98.

The computed value of 'F' for the main effect of change proneness on self-efficacy of secondary school teachers, irrespective of gender, for d_f 2 and 1042, came out to be 101.240 which is much greater than the table value (4.61) at 0.01 level of significance. Hence, the Hypothesis that, "There will be significant difference in self-efficacy of secondary school teachers with different levels of change proneness," was accepted. So, it was inferred that secondary school teachers possessing different level of change proneness differed significantly from each other with regard to their self-efficacy. Further, on the basis of post-hoc analysis (Games- Howell Test) results and comparing the mean self-efficacy scores of three groups of teachers, it was observed that secondary school teachers with high and moderate level of change proneness had shown significantly higher self-efficacy as compared to teachers with low level of change proneness because computed 'q' values i.e. 20.103 (High Vs. Low) and 12.924 (Moderate Vs. Low) were both higher than the critical value of 'q' (4.12) at 0.01 level of significance. In the similar manner, secondary school teachers with high level of change proneness had shown significantly higher self-efficacy as compared to teachers with moderate change proneness level as the computed 'q' value i.e. 8.931 was higher than the critical value of q (4.12) at 0.01 level of significance, for df'=801 (k=3). This is also supported by the mean self-efficacy score of teachers with high change proneness level which came out to be 250.54 and significantly much greater than the mean self-efficacy score of teachers with moderate change proneness level (239.69) which in turn is significantly higher than mean self-efficacy score of teachers with low change proneness level (220.96).

The obtained value of 'F' for the interactional effect of gender and change proneness on self-efficacy of secondary school teachers, for d_f2 and 1042, came out to be 0.264 which is less than the table value (3.00) even at 0.05 level of significance. Hence, the Hypothesis that, "Gender and level of change proneness will not interact significantly with respect to self-efficacy of secondary school teachers,'' was accepted.

2. In order to study the main effects of teaching experience and level of change proneness on self-efficacy of secondary school teachers along with their interactional effect, analysis of variance (3x3 factorial design involving three levels of teaching experience i.e. highly experienced, moderately experienced and less experienced and three levels of change proneness i.e. high, moderate and low) was applied on weighted mean self-efficacy scores.

Table 3 Self-Efficacy Scores of High, Moderate and Less Experienced Secondary School Teachers with Different Level of Change Proneness

Sr. No.	Level of Change Proneness (B) Teaching Experience (A)		Mean Self-Efficacy Scores			
			High Level (322)	Moderate Level (448)	Low Level (278)	Total (1048)
1	Highly Experienced	Mean	249.70	240.76	223.50	239.30
		S.D.	25.654	25.313	26.379	27.452
		N	92	124	72	288
2	Moderately Experienced	Mean	249.25	236.89	221.03	235.86
		S.D.	23.862	26.432	27.743	28.202
		N	105	149	105	359
3	Less Experienced	Mean	252.24	241.33	219.07	239.12
		S.D.	18.036	24.004	28.971	26.810
		N	125	175	101	401
4	Total (1048)	Mean	250.54	239.69	220.96	238.06
		S.D.	22.329	25.218	27.809	27.489
		N	322	448	278	1048

From the mean self-efficacy scores of high, moderate and less experienced secondary school teachers with respect to their level of change proneness, F-values were calculated. The results are given in Table 4.

Table 4 Summary of the Results of Analysis of Variance for Self-Efficacy of Secondary School Teachers

Sr. No.	Source of Variation	Sum of Squares	d_f	Mean Square (Variance)	F-Ratio
1.	Teaching Experience (A)	950.634	2	475.317	0.754^{NS}
2.	Change Proneness (B)	126144.942	2	63072.471	100.003**
3.	Interaction (AxB)	1945.177	4	486.294	0.771^{NS}
4.	Error Variance	655305.849	1039	630.708	
5.	Total	784346.602	1047		

NS - Not Significant

** - Significant at 0.01 level of significance.

The calculated value of 'F' for the main effect of teaching experience on self-efficacy of secondary school teachers, irrespective of their level of change proneness, for d_f 2 and 1039, came out to be 0.754 which is below the table value (3.00) even at 0.05 level of significance. Hence, the Hypothesis that, "There will be no significant difference in self-efficacy of secondary school teachers with respect to their teaching experience," was accepted. Therefore, it may be interpreted that secondary school teachers with different teaching experience (length of service) possessed nearly similar level of self-efficacy. This is also evident from weighted mean self-efficacy scores of highly experienced, moderately experienced and less experienced secondary school teachers which came out to be 239.30 and 235.86, 239.12 respectively. Although, it has been seen that less experienced secondary school teachers had shown higher mean of self-efficacy (239.12) as compared to moderately experienced secondary school teachers (235.86) but the mean difference was not found to be statistically significant.

The computed value of 'F' for the main effect of change proneness on self-efficacy of secondary school teachers, irrespective of their teaching experience, for d_f 2 and 1039, came out to be 100.003 which is much greater than the table value (4.61) at 0.01 level of significance. So, it was inferred that secondary school teachers possessing different level of change proneness differed significantly from each other with regard to their self-efficacy.

The obtained value of 'F' for the interactional effect of teaching experience and change proneness on self-efficacy of secondary school teachers, for d_f4 and 1039, came out to be 0.771 which is less than the table value (2.38) even at 0.05 level of significance. Hence, the Hypothesis that, "Teaching experience and level of change proneness will not interact significantly with respect to self-efficacy of secondary school teachers,'' was accepted.

Discussion of Findings and Implications

On the basis of findings of present study, it was concluded that there existed significant gender difference in self-efficacy among secondary school teachers. The male teachers had shown significantly higher mean self-efficacy score (241.25) and thus, are significantly more self-efficacious as compared to female secondary school teachers who had shown mean self-efficacy score of 234.98. Hence, there is a great need to increase the self-efficacy of the female teachers. Bandura (1997) claimed that there are several ways to encourage or increase self-efficacy viz. by providing successful experiences in execution of challenging tasks, study of models of behaviour, verbal persuasion and a high level of mental and physical alertness. This has many implications for in-service training programmes that

include a need to provide a safe environment for teachers in which they may learn in a non-threatening and co-operative manner. Providing such an environment during training programmes should facilitate free flow of ideas, scope for dialogue and opportunities for receiving feedback. In addition to this, the female teachers should be given more exposure through vicarious experiences and their involvement in more challenging tasks in the schools. It was further revealed that secondary school teachers possessing different level of change proneness differed significantly from each other in terms of their self-efficacy. In other words, change proneness and self-efficacy are significantly and positively correlated. This means that the teachers with a tendency to accept new ideas, techniques in their teaching are more able to cope with their environment, realize their skills effectively and had a sense of higher self-efficacy. Higher level of self-efficacy further leads to greater efforts of teachers which in turn leads to more effectiveness in teaching and a better student' performance. Therefore, it is essential that efforts should be made by the schools and the concerned government authorities to improve the change proneness ability and self-efficacy level of school teachers. This will not only help in improving the satisfaction level of teachers but also in improving their commitment towards the profession. Although, it was revealed that teaching experience (length of service) did not significantly influence the self-efficacy of secondary school teachers. However, less experienced secondary school teachers had shown higher self-efficacy as compared to highly or moderately experienced teachers. This has a clear-cut implication that the self-efficacy beliefs of the teachers should be increased right from their induction as in-service teachers. The teachers should be given opportunities to critically examine themselves, reflect on their beliefs and receive feedback concerning their effectiveness. Such opportunities must be provided early in the career of teachers because as a teacher moves through his or her career, the efficacy beliefs set in and are more challenging to redesign. The provision of such opportunities for increasing self-efficacy beliefs will definitely be assistive in solidifying self-efficacy of teachers that will promote learning and retention among students. Hardly any teacher training programme at present place any emphasis on the development of strong efficacy beliefs despite the knowledge that they often influence teaching practices. The beneficial effects of training programmes adopted to the needs of teachers are well known to us. It is therefore crucial that the teachers be adequately trained to be effective in their interventions. It is highly essential to plan and organize in-service training programmes that develop high self-efficacy attitudes in classroom as well as effective education practices. This will be more helpful not only in terms of addressing the needs of the teachers but also in reducing stress and conflict among them.

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