

## Impact of Collective-Efficacy and Self-Efficacy on the Innovative Work Behaviour of Teachers in the Nilgiris District, Tamil Nadu

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### ABSTRACT

The study presented here is to understand the level of collective-efficacy and self-efficacy of teachers in the Nilgiris District Tamil Nadu. The study also helps us to understand the influence of collective-efficacy and self-efficacy on the innovative behaviour of Teachers. Stratified Random Sampling Method is used in this study to select 90 school teachers. The data is analysed using descriptive statistics and Pearson's Correlation Coefficients. In this study, the correlation between collective-efficacy and innovative work behaviour, self-efficacy and innovative work behaviour and collective-efficacy and self-efficacy were studied. The levels of collective- efficacy and self-efficacy and their influence on the innovative work behaviour were studied in teachers based on their designation, gender, experience and the type of school in which they work.

**Keywords:** *Self-efficacy, Collective-efficacy, Innovative Work Behaviour.*

Teacher self-efficacy is about the individual teachers' belief in their own ability to plan, organize and carry out activities that are required to attain given educational goals whereas perceived collective teacher-efficacy is about the individual teachers' belief in the ability of the team and the teachers at school to plan, organize and carryout activities that are required to attain given educational goals. The term *self-efficacy* has been defined many times in the professional literature relating to education. Teachers having high sense of self-efficacy use effective approaches in the classroom. Students benefit a lot when teachers have strong positive self-efficacy. Teachers with high level of self-efficacy are more prepared to experiment with new educational practices and thereby show high levels of innovative work behaviour. Innovative work behaviour includes innovative planning of lessons, innovative teaching styles and innovative assessment methods. There have been a few studies done exploring the relations between perceived collective-efficacy, individual teacher self-efficacy

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and innovative work behaviour. These few studies suggest moderate positive relation between perceived collective-efficacy and teacher self-efficacy.

### ***Need for the Study***

Teachers are facilitators of learning process. Teachers of different schools exhibit different potentials. To make classrooms livelier and to enhance academic achievement of students, it is time to assess the level of self-efficacy and collective-efficacy of teachers. This study also helps us to understand the influence the collective and self efficacies of teachers on the innovative work behaviour of the teachers.

## **LITERATURE REVIEW**

### ***Teacher Self-Efficacy***

Teacher self-efficacy can be defined as the individual teachers' beliefs in their own ability to plan, organize and carry out activities that are required to attain given educational goals (Skaalvik EM and Skaalvik S 2010). It was Bandura who first published an article on self-efficacy in 1977. Researchers have defined teacher self-efficacy as the belief teachers have in their ability to teach resulting in improved student learning (Tschannen-Moran, 2002, Woolfolk, Rosoff, & Hoy, 1990). Woolfolk Hoy A (2000) is of the opinion that teachers' self-efficacy has been found to be associated with student motivation, teachers' adoption of innovative teaching practices, teachers' competence as rated by superintendents, effective classroom management strategies of the teachers, time spent on different subjects, and teachers' referrals of students to special education. Carmeli A and Schaubroeck J (2007) feel that individuals with high self-efficacy are more likely to undertake more challenging activities involving more creative practices. Self-efficacy is the belief that one is capable of performing in a certain manner with the idea of attaining an ultimate end result (Bandura, 1986). When a teacher is placed in a position to motivate and influence others, their self-efficacy must exude the necessary confidence and forward thinking it takes to empower students and inspire them to achieve better academic results (Bandura, 1977). Bandura A (1994) is of the opinion that individuals with a high sense of self-efficacy are more likely to have higher levels of performance and higher commitment to tolerate frustration and to remain task focused when the obstacles arise. Bandura (1977) noted that the "outcomes people anticipate depend largely on their judgments of how well they will be able to perform in given situations". The same can be stated for teachers, their beliefs and attitudes toward their school, grade level, curriculum, and their student's overall performance. Wolf K.J (2000) is of the opinion that teachers with a higher perception on self-efficacy are more confident about their abilities and therefore, more likely to stay in their teaching profession. According to Henson RK (2001) teachers' self-efficacy influences their choices, their efforts, their persistence when facing adversity and their emotions. Ashton P (1985) refers teachers' self-efficacy to their beliefs in their ability to have a positive effect on student learning.

### ***Perceived Collective Teacher-Efficacy***

Perceived collective teacher-efficacy can be defined as the teacher's individual beliefs about their ability of the team and the faculty of teachers at school to execute courses of action to

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attain given educational goals (Bandura, 1997; Goddard & Goddard, 2001; Goddard, Hoy, & Woolfolk Hoy, 2004). Schools characterized by high collective teacher-efficacy set challenging goals and are persistent in their effort to meet these goals. According to Goddard et al (2004), when challenging goals are set by schools, it creates a normative press that encourages all teachers to do what it takes to excel, and discourages them from giving up when faced with difficult situations. Based on social comparison theory (Marsh and Craven 2000) the teacher who perceives that his or her teaching ability is lower than the ability of other teachers at school may lose confidence regarding his or her own teaching ability. Therefore individual teacher self-efficacy and collective teacher-efficacy are different but correlated constructs. Thus being part of a strong team will not always increase the self-efficacy of all the team members.

### ***Innovative Work Behaviour***

Innovative work behaviour includes actions such as seeking out new ideas, championing ideas at work, and planning for implementation of ideas Scott and Bruce (1994). In order to be considered innovative, ideas have to be new, applicable and beneficial (Farr & Ford, 1990; West & Farr, 1990). There are two broad components to innovative behaviour (Kanter, 1988). They are creative component and implementation component. The creative component encompasses exploration of opportunities for innovation and generation of innovative ideas. The implementation component encompasses promotion of these ideas and their realization in organizational practice. In educational settings innovations and innovative work behaviour are crucial to enhance academic achievement among students. In the context of teaching, innovations involve changes and improvements in the learning environment for betterment of the students. Innovative teaching leads to creative learning. The implementation of new methods, tools, technology and contents benefits the learner and enhances the creative potential (Ferrari, Cachia and Punie, 2009). There has been a very little study on how teachers are involved in innovation related work behaviours and how their active contributions can be encouraged and fostered (Messmann, Mulder & Gruber, 2010). A teacher may have an idea of how (s)he can motivate the students by involving them into realistic work situations and make them grasp the subject matter. However, in order to implement this idea the teacher needs to be engaged in innovation related activities like introduce new plans to colleagues, seek help from authorities, acquire information from other schools, seek resource support from school management etc. The teacher has to prove the success of the idea by showing constructive results, that is, the innovation outcome.

### ***Objectives of the Study***

The major objectives of the present study were:

1. To assess the level of self-efficacy of teachers of Nilgiris,
2. To study the level of collective-efficacy of teachers of Nilgiris,,
3. To find the influence of collective-efficacy and self-efficacy on the innovative behaviour of teachers of Nilgiris.

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### *Hypotheses*

The hypotheses of the present study were as follows:

1. There is no significant difference in the level of self-efficacy of male and female teachers.
2. There is no significant difference in the level of self-efficacy of teachers from government and private schools.
3. There is no significant difference in the level of self-efficacy of PGT and BT teachers.
4. There is no significant difference in the level of self-efficacy of teachers with less than 5 years and more than 5 years of teaching experience.
5. There is no significant difference in the level of collective-efficacy of male and female teachers.
6. There is no significant difference in the level of collective-efficacy of teachers from government and private schools,
7. There is no significant difference in the level of collective-efficacy of PGT and BT teachers,
8. There is no significant difference in the level of collective-efficacy of teachers with less than 5 years and more than 5 years of teaching experience.
9. There is no significant relationship between self-efficacy of teachers and their innovative behaviour,
10. There is no significant relationship between collective-efficacy of teachers and their innovative behaviour.
11. There is no significant relationship between self-efficacy and collective-efficacy of teachers.

### *Delimitation of the Study*

Though the scope and purpose of the present study was very wide but due to shortage of time, the researcher had to delimit the present study in the following respect:

1. The present study is confined to high schools and higher secondary schools under the Nilgiris District, Tamil Nadu.
2. Only 90 teachers from high school and higher secondary school have been included in this study.
3. To explore the level of self-efficacy only one tool namely *Teacher Self-Efficacy Scale* developed by Megan Tschannen-Moran and Mary Anita Woolfolk Hoy has been used.
4. To explore the level of collective-efficacy only one tool namely *Perceived Collective Teacher-Efficacy Scale* developed by Shaalvik and Shaalvik (2007) has been used.
5. To explore the Innovative Work Behaviour, only one tool namely *Innovative Work Behaviour Scale* of De Jong and Den Hartog (2010) has been used.

## **METHODOLOGY**

### *Sample*

The present study was conducted by random selection of 90 teachers from the Nilgiris district of Tamil Nadu. 4 schools - 2 government and 2 private were randomly selected. Of the 90

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teachers selected, 47 are government school teachers and 43 are private school teachers; 41 of the 90 teach at higher secondary level (PGT) and 34 of the 90 teach at the secondary level (BT); 60 of the 90 were Female Teachers and the remaining 28 were Male Teachers; 29 out of the 90 teachers have less than 5 years of teaching experience and 32 out of the 90 teachers have more than 5 years of teaching experience.

### Procedure

The participating teachers were presented with three different scales namely Teacher Self-Efficacy Scale, Perceived Collective Teacher-Efficacy Scale and Innovative Work Behaviour Scale and they were asked to complete the scales in their own time. Teacher Self-Efficacy Scale has 24 items and takes 10 minutes to finish. Perceived Collective Teacher Efficacy Scale has 7 items and takes 5 minutes to complete. Innovative Work Behaviour Scale has 10 items and takes 5 minutes to complete. All these scales comprised of 5-point Likert-type scale. The data so obtained was analyzed using descriptive statistics. Pearsons's correlation coefficient was also calculated to establish a correlation between teachers' sense of efficacy, perceived collective teacher efficacy and innovative work behaviour.

### Measures

- 1. Teachers' Self-Efficacy Scale:** *Teacher Self-Efficacy Scale* developed by Megan Tschannen-Moran (2001) of the Ohio State University, has 24 items with Cronbach's alpha for the scale is 0.94 ( $\alpha = 0.94$ ).
- 2. Perceived Collective Teacher-Efficacy Scale:** *Perceived Collective Teacher-Efficacy Scale* is a seven item scale developed by Skaalvik & Skaalvik (2007). The items focussed on instruction, motivation, controlling student behaviour, addressing students' needs, and creating a safe environment. Cronbach's alpha for the scale is 0.85 ( $\alpha = 0.85$ ).
- 3. Innovative Work Behaviour Scale:** The *Innovative Work Behaviour Scale* of De Jong and Den Hartog (2010) consists of ten items and the Cronbach's alpha for the scale is 0.90 ( $\alpha = 0.90$ ).

## RESULTS

### Descriptive Statistics

The descriptive statistics namely mean and standard deviation of the variables are reported as follows:

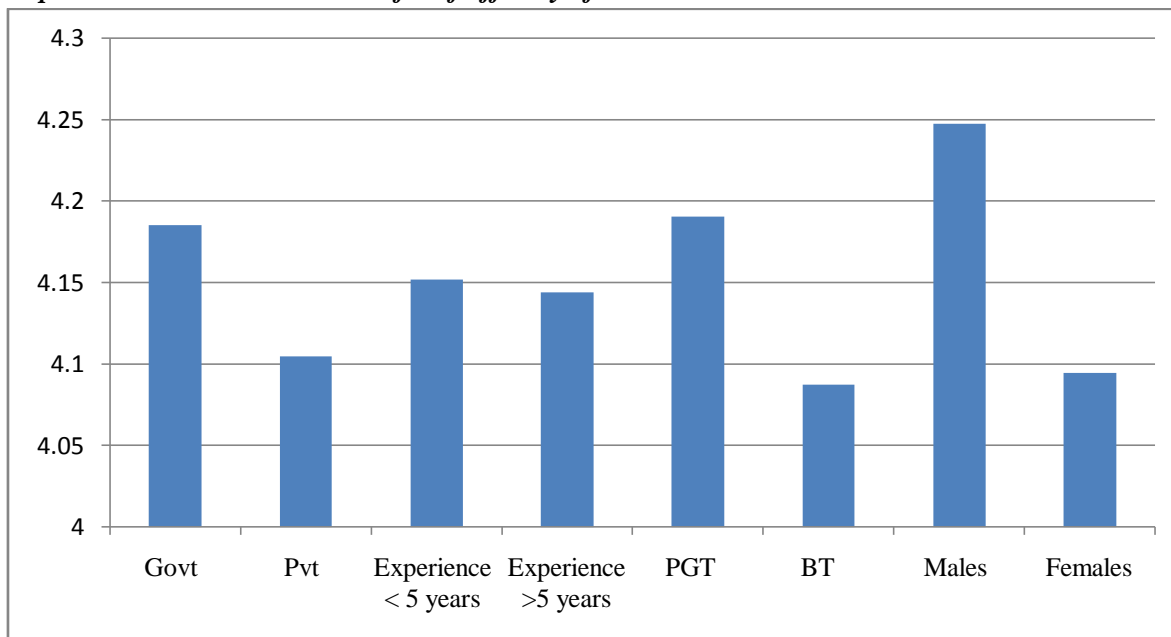
**Table-1: The Overall Mean Scores of Self-efficacy of Teachers**

Variable	Sample	Mean	SD	SE of Mean Diff
Government School	47	3.984893617	0.296845	0.077
Private School	43	4.079069767	0.426256	
Experience <5 years	29	4.027586207	0.41653	0.102
Experience >5 years	32	3.990625	0.381305	
PGT	41	4.168292683	0.375792	0.073
BT	34	3.864705882	0.21202	

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Variable	Sample	Mean	SD	SE of Mean Diff
Males	28	4.017857143	0.294459	0.062
Females	60	4.031666667	0.256421	

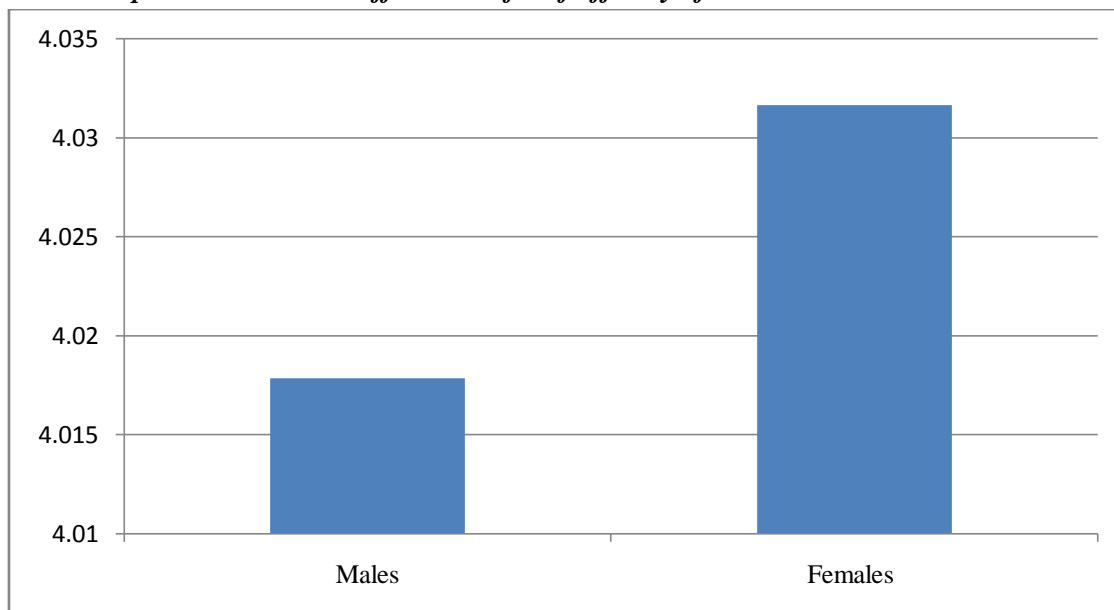
**Graph-1: Overall Mean Scores of Self-efficacy of Teachers**



**Table-2: The Mean Differences of Self-efficacy of Male and Female Teachers**

Variable	Sample	Mean	SD	SE of Mean Diff	t Value
Males	28	4.017857143	0.294459	0.062	0.34074
Females	60	4.031666667	0.256421		

**Graph-2: The Mean Differences of Self-efficacy of Male and Female Teachers**

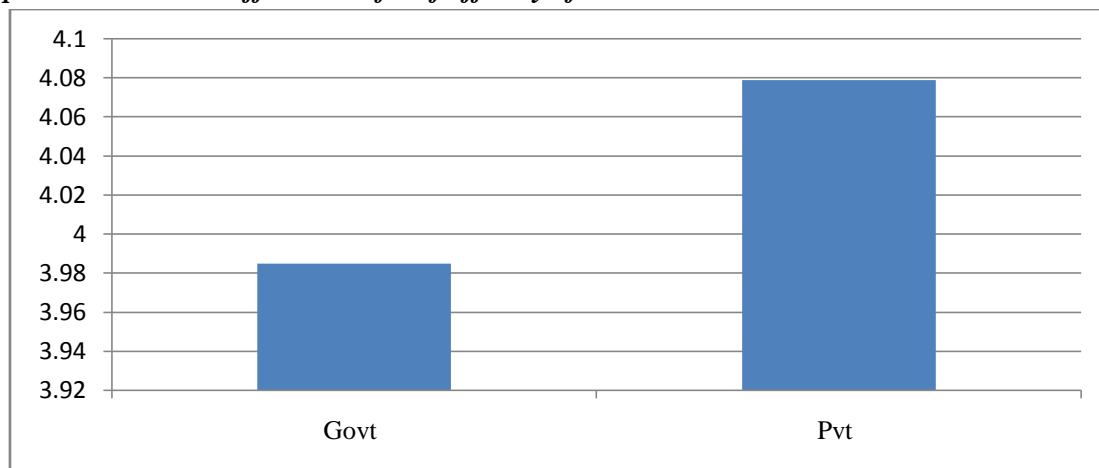


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**Table-3: The Mean Differences of Self-efficacy of Teachers in Government and Private Schools**

Variable	Sample	Mean	SD	SE of Mean Diff	t Value
Government School	47	3.984893617	0.296845	0.077	1.18835
Private School	43	4.079069767	0.426256		

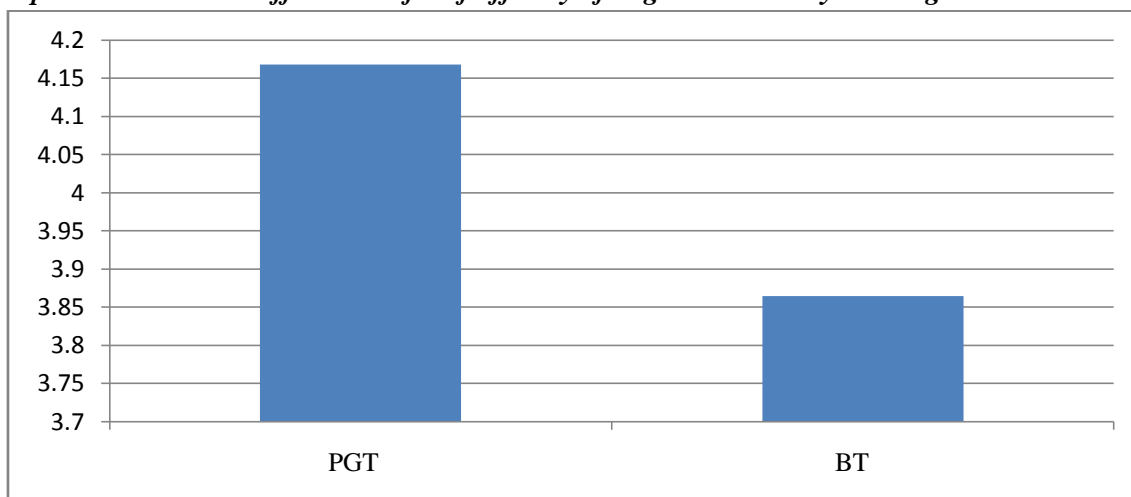
**Graph-3: The Mean Differences of Self-efficacy of Teachers in Government and Private Schools**



**Table-4: The Mean Differences of Self-efficacy of Higher Secondary and High School Teachers**

Variable	Sample	Mean	SD	SE of Mean Diff	t Value
PGT	41	4.168292683	0.375792	0.073	3.31929
BT	34	3.864705882	0.21202		

**Graph-4: The Mean Differences of Self-efficacy of Higher Secondary and High School Teachers**

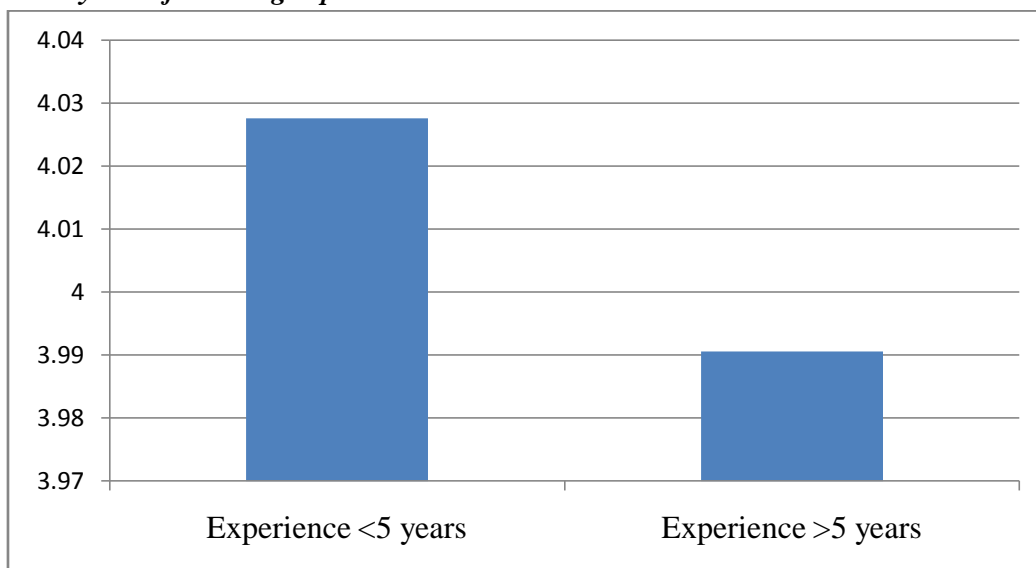


**Table - 5: The Mean Differences of Self-efficacy of Teachers with less than 5 years and more than 5 years of teaching experience**

Variable	Sample	Mean	SD	SE of Mean Diff	t Value
Experience <5 years	29	4.027586207	0.41653	0.102	0.41844
Experience >5 years	32	3.990625	0.381305		

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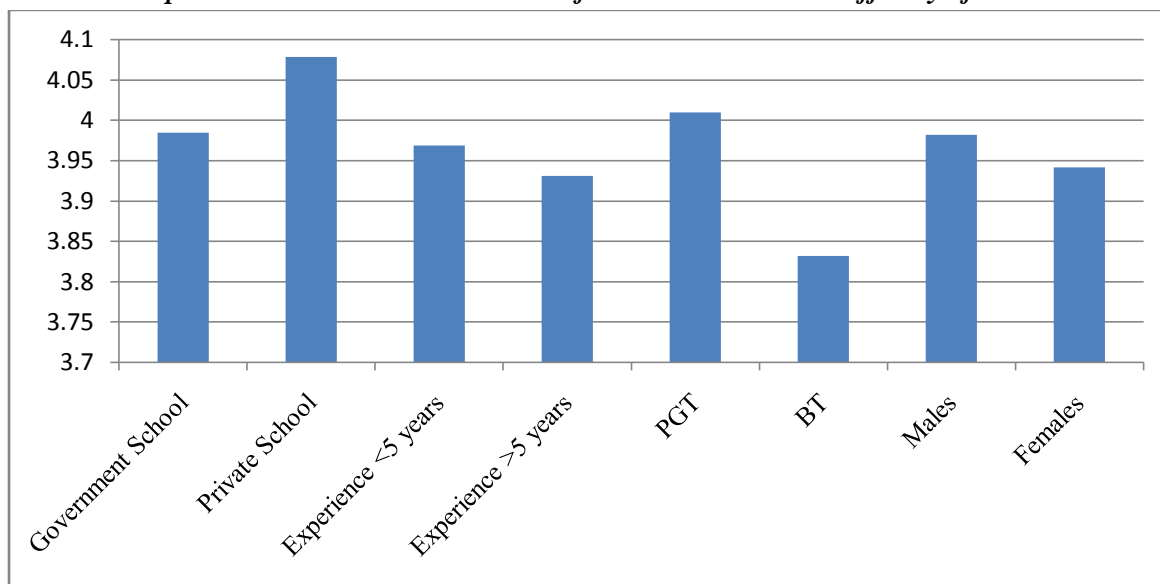
**Graph - 5: The Mean Differences of Teachers' Self-efficacy of Teachers with less than 5 years and more than 5 years of teaching experience**



**Table-6: The Overall Mean Scores of Perceived Collective Efficacy of Teachers**

Variable	Sample	Mean	SD	SE of Mean Diff
Government School	47	3.889362	0.407129	0.0781
Private School	43	4.027907	0.569179	
Experience <5 years	29	3.96896552	0.54583059	0.14522
Experience >5 years	32	3.93125	0.58829305	
PGT	41	4.009756	0.390388	0.0764
BT	34	3.832353	0.268506	
Males	28	3.98214286	0.4320953	0.09178
Females	60	3.941667	0.324591	

**Graph-6: The Overall Mean Scores of Perceived Collective-efficacy of Teachers**



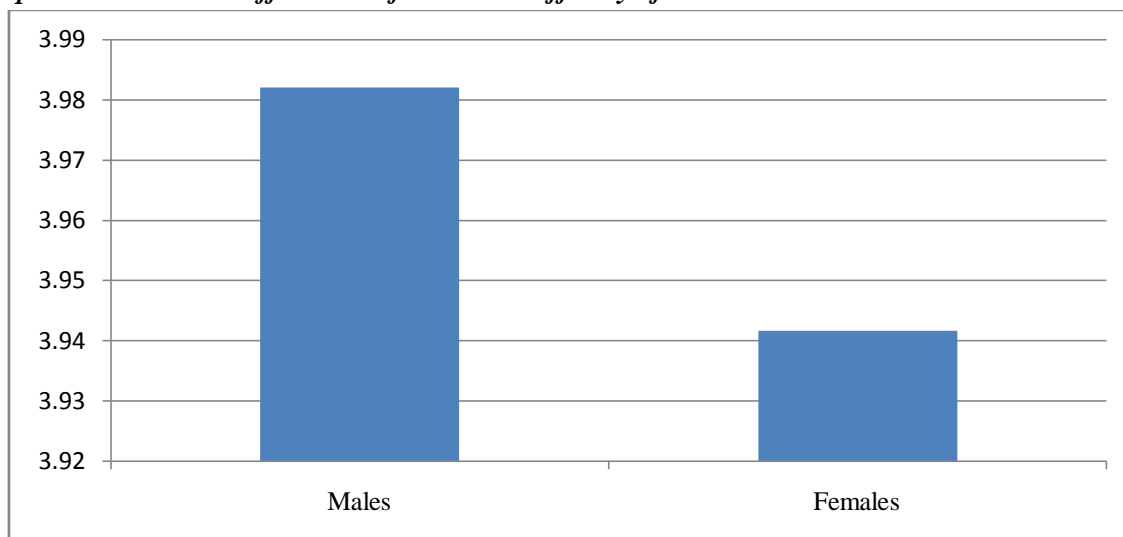


**Impact of Collective-Efficacy and Self-Efficacy on the Innovative Work Behaviour of Teachers in the Nilgiris District, Tamil Nadu**

**Table-7: The Mean Differences of Collective-efficacy of Male and Female Teachers**

Variable	Sample	Mean	SD	SE of Mean Diff	t Value
Males	28	3.98214286	0.4320953	0.09178	1.18477
Females	60	3.941667	0.324591		

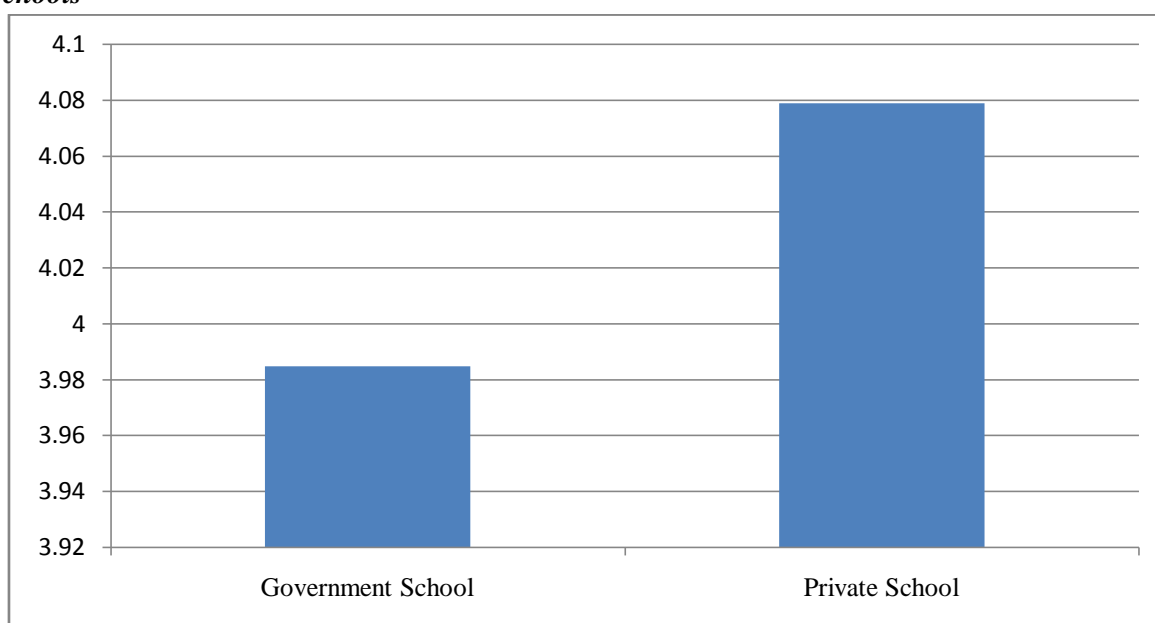
**Graph-7: The Mean Differences of Collective-efficacy of Male and Female Teachers**



**Table-8: The Mean Differences of Collective-efficacy of Teachers in Government and Private Schools**

Variable	Sample	Mean	SD	SE of Mean Diff	t Value
Government School	47	3.889362	0.407129	0.0781	1.33662
Private School	43	4.027907	0.569179		

**Graph-8: The Mean Differences of Collective-efficacy of Teachers in Government and Private Schools**

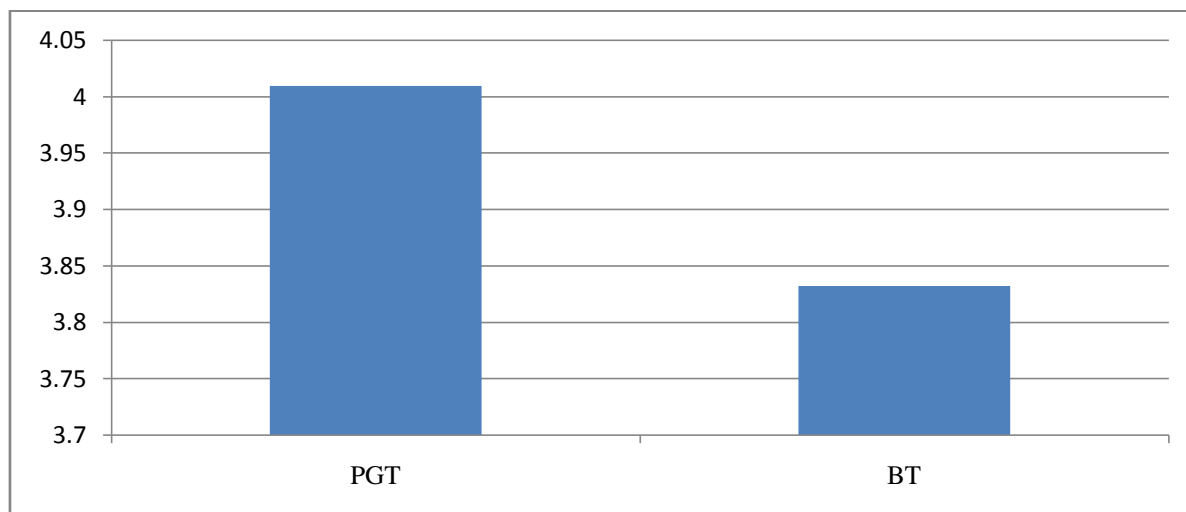


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**Table-9: The Mean Differences of Collective-efficacy of Higher Secondary and High School Teachers**

Variable	Sample	MEAN	SD	SE of Mean Diff	t Value
PGT	41	4.009756	0.390388	0.0764	1.28883
BT	34	3.832353	0.268506		

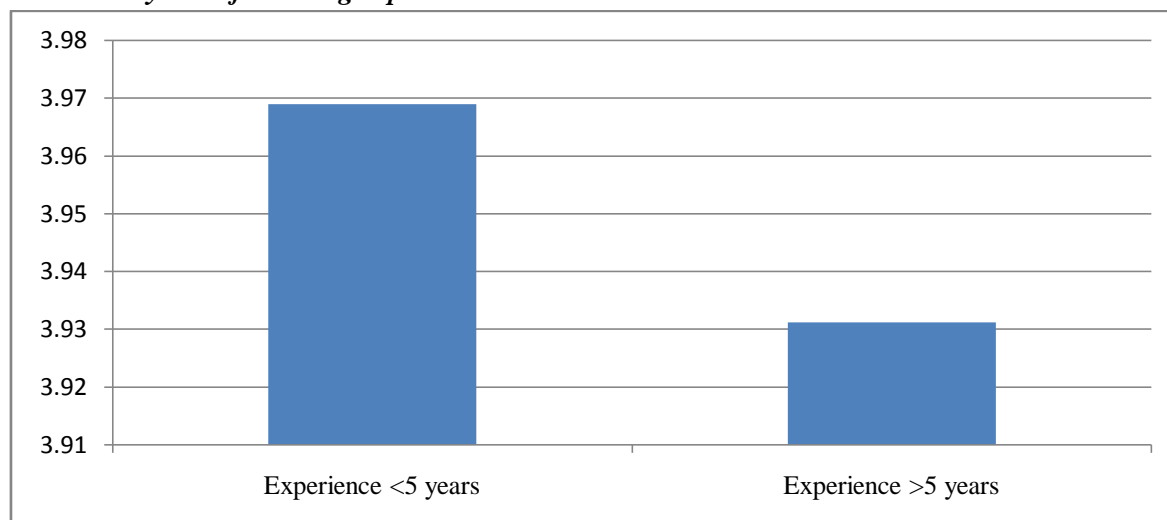
**Graph-9: The Mean Differences of Collective-efficacy of Higher Secondary and High School Teachers**



**Table - 10: The Mean Differences of Collective-efficacy of Teachers with less than 5 years and more than 5 years of teaching experience**

Variable	Sample	Mean	SD	SE of Mean Diff	t Value
Experience <5 years	29	3.96896552	0.54583059	0.14522	0.29263
Experience >5 years	32	3.93125	0.58829305		

**Graph - 10: The Mean Differences of Collective-efficacy of Teachers with less than 5 years and more than 5 years of teaching experience**

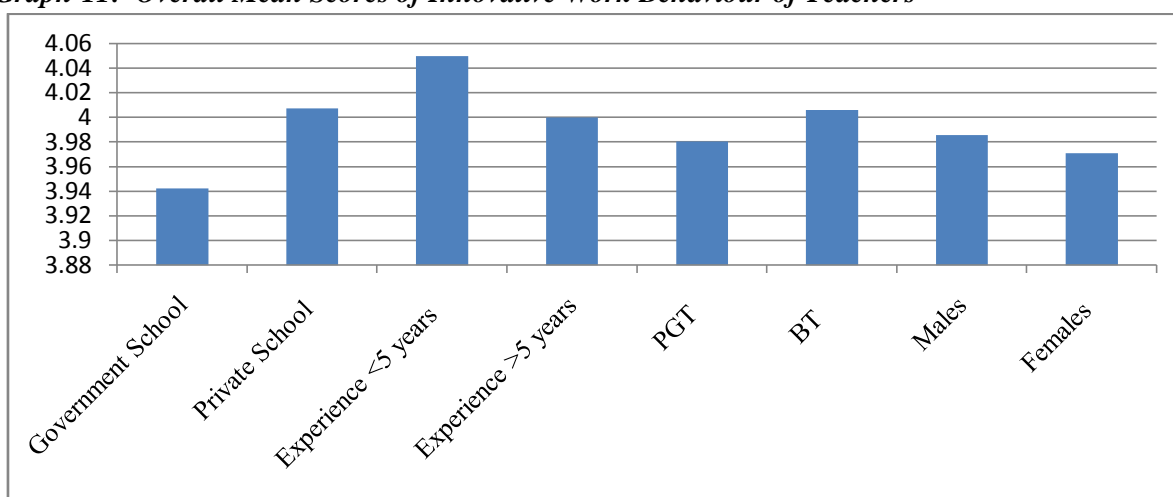


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**Table-11: The Overall Mean Scores of Innovative Work Behaviour of Teachers**

Variable	Sample	Innovative Work Behaviour	SD	SE of Mean Diff
Government School	47	3.942553191	0.47856	0.084
Private School	43	4.007317073	0.282843	
Experience <5 years	29	4.05	0.562084	0.132
Experience >5 years	32	4.00	0.470415	
PGT	41	3.980487805	0.536759	0.115
BT	34	4.006060606	0.4454	
Males	28	3.985714286	0.548424	0.092
Females	60	3.971186441	0.31483	

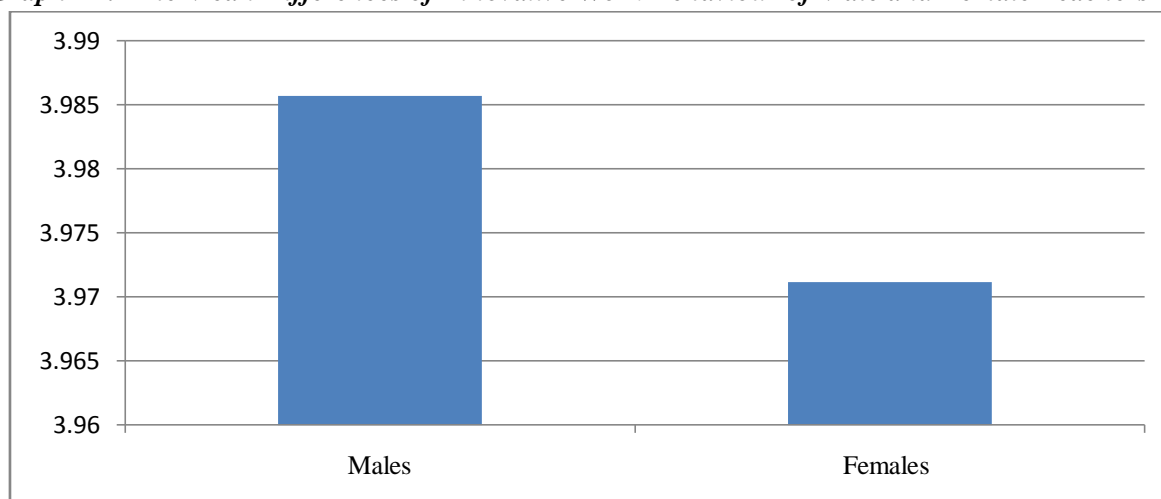
**Graph-11: Overall Mean Scores of Innovative Work Behaviour of Teachers**



**Table-12: The Mean Differences of Innovative Work Behaviour of Male and Female Teachers**

Variable	Sample	Mean	SD	SE of Mean Diff	t Value
Males	28	3.985714286	0.548424	0.092	0.61529
Females	60	3.971186441	0.31483		

**Graph-12: The Mean Differences of Innovative Work Behaviour of Male and Female Teachers**

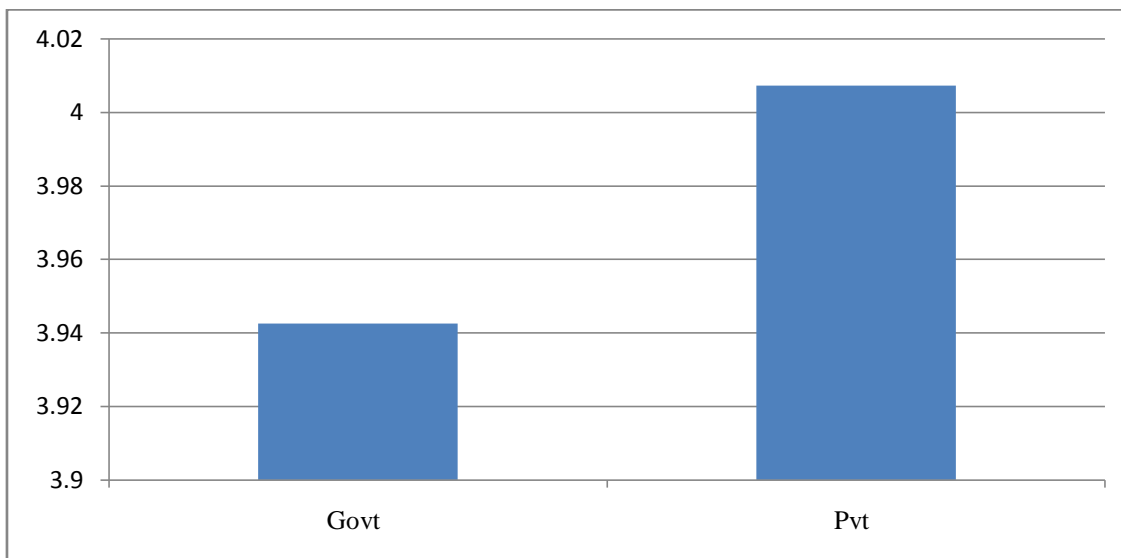


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**Table-13: The Mean Differences of Innovative Work Behaviour of Teachers in Government and Private Schools**

Variable	Sample	Mean	SD	SE of Mean Diff	t Value
Government School	47	3.942553191	0.47856	0.084	0.57404
Private School	43	4.007317073	0.282843		

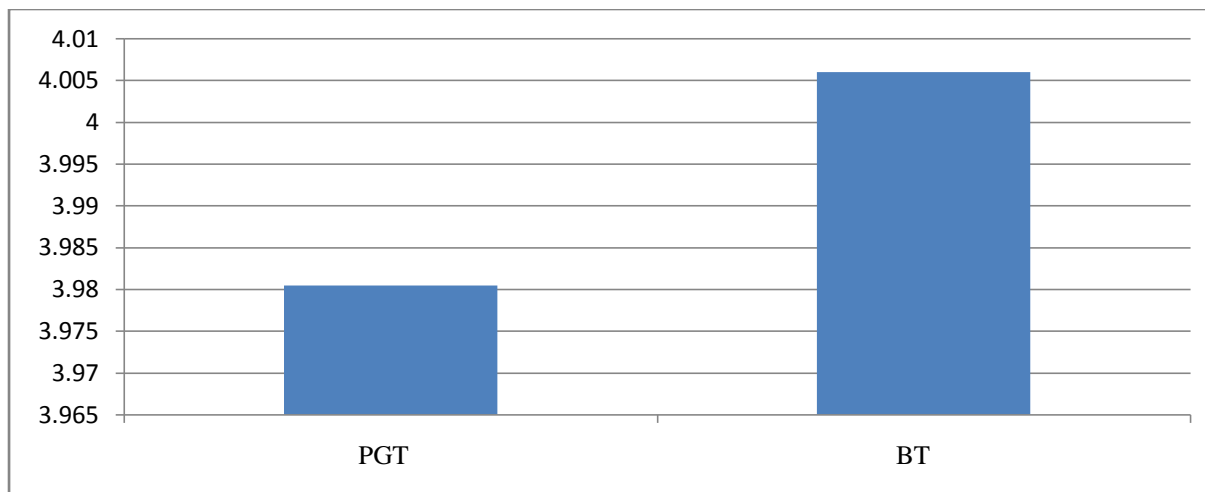
**Graph-13: The Mean Differences of Innovative Work Behaviour of Teachers in Government and Private Schools**



**Table-14: The Mean Differences of Innovative Work Behaviour of Higher Secondary and High School Teachers**

Variable	Sample	Mean	SD	SE of Mean Diff	t Value
PGT	41	3.980487805	0.536759	0.115	0.27658
BT	34	4.006060606	0.4454		

**Graph-14: The Mean Differences of Innovative Work Behaviour of Higher Secondary and High School Teachers**

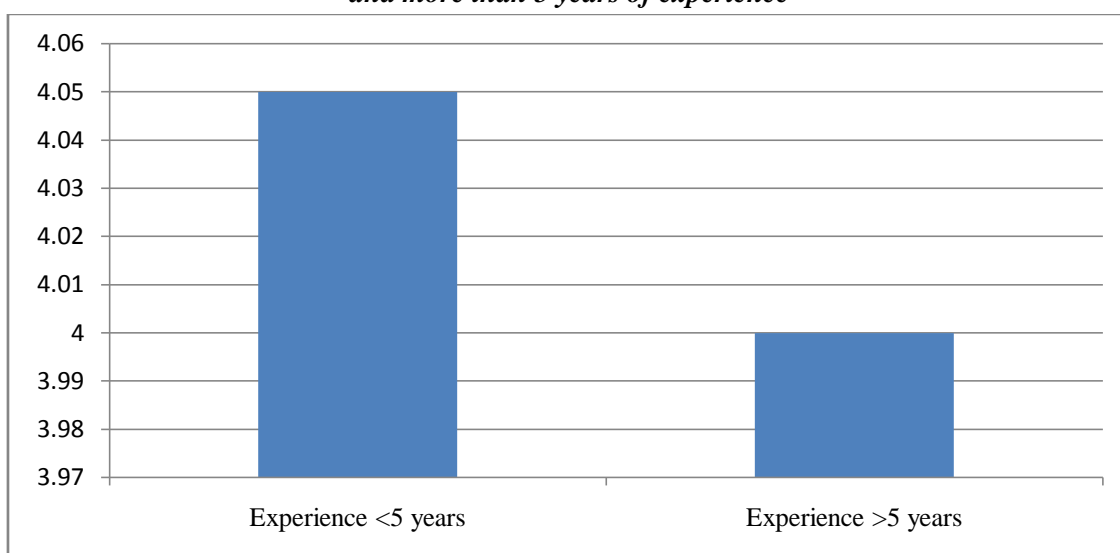


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**Table-15: The Mean Differences of Innovative Work Behaviour Teachers with less than 5 years and more than 5 years of experience**

Variable	Sample	Mean	SD	SE of Mean Diff	t Value
Experience <5 years	29	4.05	0.562084	0.132	0.07471
Experience >5 years	32	4.00	0.470415		

**Graph-15: The Mean Differences of Innovative Work Behaviour Teachers with less than 5 years and more than 5 years of experience**



**Correlational Analysis:** Data related to the correlational analysis of perceived collective teacher-efficacy, teacher’s self-efficacy and innovative behaviour are presented as follows:

**Table-16: Correlational Analysis of Perceived Collective-Efficacy, Self-Efficacy and Innovative Behaviour of Government School Teachers**

Sample	Variable	Perceived Collective-Efficacy	Innovative Work Behaviour	Teacher Self-Efficacy
Government School	Perceived Collective- Efficacy	1		
	Innovative Work Behaviour	0.3538	1	
	Teacher’s Self Efficacy	0.3564	0.2942	1

**Table-17: Correlational Analysis of Perceived Collective-Efficacy, Self-Efficacy and Innovative Behaviour of Private School Teachers**

Sample	Variable	Perceived Collective-Efficacy	Innovative Work Behaviour	Teacher Self-Efficacy
Private School	Perceived Collective- Efficacy	1		
	Innovative Work	0.0225	1	

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Sample	Variable	Perceived Collective-Efficacy	Innovative Work Behaviour	Teacher Self-Efficacy
	Behaviour			
	Teacher's Self Efficacy	0.6168	0.0813	1

*Table-18: Correlational Analysis of Perceived Collective-Efficacy, Self-Efficacy and Innovative Behaviour of PGT (Higher Secondary) Teachers*

Sample	Variable	Perceived Collective-Efficacy	Innovative Work Behaviour	Teacher Self-Efficacy
PGT	Perceived Collective-Efficacy	1		
	Innovative Work Behaviour	0.0856	1	
	Teacher's Self Efficacy	0.372	0.2076	1

*Table-19: Correlational Analysis of Perceived Collective-Efficacy, Self-Efficacy and Innovative Behaviour of BT (High School) Teachers*

Sample	Variable	Perceived Collective-Efficacy	Innovative Work Behaviour	Teacher Self-Efficacy
BT	Perceived Collective-Efficacy	1		
	Innovative Work Behaviour	0.3912	1	
	Teacher's Self Efficacy	0.7382	0.2597	1

*Table-20: Correlational Analysis of Perceived Collective-Efficacy, Self-Efficacy and Innovative Behaviour of Teachers with less than 5 years of teaching experience*

Sample	Variable	Perceived Collective-Efficacy	Innovative Work Behaviour	Teacher Self-Efficacy
Experience <5 years	Perceived Collective-Efficacy	1		
	Innovative Work Behaviour	0.2463	1	
	Teacher's Self Efficacy	0.6244	0.202	1

*Table-21: Correlational Analysis of Perceived Collective-Efficacy, Self-Efficacy and Innovative Behaviour of Teachers with more than 5 years of teaching experience*

Sample	Variable	Perceived Collective-Efficacy	Innovative Work Behaviour	Teacher Self-Efficacy
Experience >5 years	Perceived Collective-Efficacy	1		
	Innovative Work Behaviour	0.0991	1	
	Teacher's Self Efficacy	0.5119	0.0737	1

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**Table-22: Correlational Analysis of Perceived Collective-Efficacy, Self-Efficacy and Innovative Behaviour of Female Teachers**

Sample	Variable	Perceived Collective-Efficacy	Innovative Work Behaviour	Teacher Self-Efficacy
Female	Perceived Collective-Efficacy	1		
	Innovative Work Behaviour	0.0636	1	
	Teacher's Self Efficacy	0.5969	0.0858	1

**Table-23: Correlational Analysis of Perceived Collective-Efficacy, Self-Efficacy and Innovative Behaviour of Male Teachers**

Sample	Variable	Perceived Collective-Efficacy	Innovative Work Behaviour	Teacher Self-Efficacy
Male	Perceived Collective-Efficacy	1		
	Innovative Work Behaviour	0.042	1	
	Teacher's Self Efficacy	0.3141	0.4553	1

## **DISCUSSION**

The purpose of this study is to investigate the impact of collective-efficacy and self-efficacy on the innovative work behaviour of teachers. The Table 1 shows overall mean scores of self-efficacy among the various categories of teachers. Higher secondary teachers (PGT) show the highest mean score (4.16) and this is followed by private school teachers (4.08). The mean score is lowest among the government school teachers (3.98). The overall mean scores of perceived collective-efficacy among the various categories of teachers are given in Table 6. Private school teachers show the highest mean score (4.02) and this is followed by higher secondary teachers (PGT) (4.00). The mean score is lowest among the high school teachers (BT) (3.83). The overall mean scores of innovative work behaviour among the various categories of teachers are given in Table 9. Private school teachers show the highest mean score (4.007) and this is followed by high school teachers (4.006). The mean score is lowest among the government school teachers (3.94). Higher secondary teachers in Tamil Nadu are more focused towards the academic achievement of their students in the board examinations. Hence their level of self-efficacy and perceived collective-efficacy is more when compared to the high school teachers. Private school teachers show higher levels of perceived collective-efficacy and innovative work behaviour than the government school teachers and this may be attributed to the easy accessibility to teaching resources in form of libraries, audio-visual aids and functional laboratories.

From Table 2, it is understood that the calculated t value (0.3407) is lesser than the p value (0.7346 at  $p < 0.01$ ) and hence the male teachers and female teachers do not differ in the level of self-efficacy. Thus the formulated hypothesis is accepted. Also the mean score of male teachers is higher than the mean score of female teachers. Table 3 shows the calculated t

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value (1.1883) is lesser than the p value (0.2380 at  $p < 0.01$ ) and therefore the government school teachers and private school teachers do not differ in the level of self-efficacy. The formulated hypothesis is therefore accepted. The mean score of private school teachers is high. The calculated t value of 3.3192 as shown in Table 4 is more than the p value (0.001472 at  $p < 0.01$ ) and therefore the level of self-efficacy of higher secondary teachers (PGT) is different from high school teachers (BT) and hence the formulated hypothesis is rejected. Mean score of higher secondary teachers (PGT) is high. Table 5 shows that the calculated t value (0.41844) is lesser than the p value (0.6772 at  $p < 0.01$ ) but it is insignificant. Therefore the teachers with less than 5 years of teaching experience and teachers with more than 5 years of teaching experience do not differ in the level of teacher self-efficacy and hence the formulated hypothesis is accepted.

From Table 7, it is understood that the calculated t value (1.1847) is greater than the p value (0.2412 at  $p < 0.01$ ) but it is insignificant and hence the male teachers and female teachers do not differ in the level of perceived collective-efficacy. Thus the formulated hypothesis is accepted. Also the mean score of male teachers is higher than the mean score of female teachers. Table 8 shows the calculated t value (1.3366) is greater than the p value (0.1847 at  $p < 0.01$ ) but it is insignificant and therefore the government school teachers and private school teachers do not differ in the level of perceived collective efficacy. The formulated hypothesis is therefore accepted. The mean score of private school teachers is high. The calculated t value of (1.2883) as shown in Table 9 is more than the p value (0.2019 at  $p < 0.01$ ) but it is insignificant and therefore the level of perceived collective-efficacy of higher secondary teachers (PGT) is not different from high school teachers (BT) and hence the formulated hypothesis is accepted. Mean score of higher secondary teachers (PGT) is high. Table 10 shows that the calculated t value (0.2963) is lesser than the p value (0.7708 at  $p < 0.01$ ) but it is insignificant. Therefore the teachers with less than 5 years of teaching experience and teachers with more than 5 years of teaching experience do not differ in the level of perceived collective-efficacy and hence the formulated hypothesis is accepted.

From Table 12, it is understood that the calculated t value (0.61529) is greater than the p value (0.54095 at  $p < 0.01$ ) but it is insignificant and hence the male teachers and female teachers do not differ in the level of innovative work behaviour. Thus the formulated hypothesis is accepted. Also the mean score of male teachers is higher than the mean score of female teachers. Table 13 shows the calculated t value (0.57404) is greater than the p value (0.5674 at  $p < 0.01$ ) but it is insignificant and therefore the government school teachers and private school teachers do not differ in the level of innovative work behaviour. The formulated hypothesis is therefore accepted. The mean score of private school teachers is high. The calculated t value (0.27568) as shown in Table 14 is more than the p value (0.7829 at  $p < 0.01$ ) but it is insignificant and therefore the level of innovative work behaviour of higher secondary teachers (PGT) is not different from high school teachers (BT) and hence the formulated hypothesis is accepted. Mean score of high school teachers (BT) is high. Table 15 shows that the calculated t value (0.07471) is lesser than the p value (0.9407 at  $p <$



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0.01) but it is insignificant. Therefore the Teachers with less than 5 years of teaching experience and teachers with more than 5 years of teaching experience do not differ in the level of innovative work behaviour and hence the formulated hypothesis is accepted.

There is a weak positive correlation between perceived collective teacher-efficacy and innovative work behaviour among the private school teachers (0.0225), male teachers (0.042), female teachers (0.0636) and teachers with more than 5 years teaching experience (0.0991) whereas high school (BT) teachers (0.03912) and government school teachers (0.03538) show more positive correlation.

The correlation between self-efficacy and innovative work behaviour among the male teachers (0.4553), government school teachers (0.2942), high school (BT) teachers (0.2597), higher secondary teachers (PGT) (0.2076) and teachers with less than 5 years teaching experience (0.202) is positive whereas the correlation is weak among teachers with more than 5 years teaching experience (0.0737), private school teachers (0.0813), and female teachers (0.0858).

There is strong positive correlation between self-efficacy and perceived collective teacher-efficacy among high school teachers (0.7382), teachers with less than 5 years teaching experience (0.6244), private school teachers (0.6168), female teachers (0.5969) and teachers with more than 5 years teaching experience (0.5119) whereas there is a weak positive correlation among male teachers (0.3141), government school teachers (0.3564) and higher secondary (PGT) teachers (0.3720).

### **FINDINGS**

1. There is no significant difference in the level of self-efficacy of male and female teachers.
2. There is no significant difference in the level of self-efficacy of teachers from government and private schools.
3. There is significant difference in the level of self-efficacy between higher secondary teachers (PGT) and high school teachers (BT teachers).
4. There is no significant difference in the level of self-efficacy of teachers with less than 5 years and greater than 5 years of teaching experience.
5. There is no significant difference in the level of collective-efficacy of male and female teachers.
6. There is no significant difference in the level of collective-efficacy of teachers from government and private schools,
7. There is no significant difference in the level of collective-efficacy of PGT and BT teachers,
8. There is no significant difference in the level of collective-efficacy of teachers with less than 5 years and greater than 5 years of teaching experience.

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9. There is a positive correlation between perceived collective-efficacy and innovative work behaviour among the male teachers, higher secondary teachers (PGT) and in teachers with less than 5 years of teaching experience.
10. The correlation between self-efficacy and innovative work behaviour among the male teachers is more positive.
11. The correlation between self-efficacy and perceived collective-efficacy is more positively correlated among teachers with less than 5 years teaching experience, high school teachers (BT), male teachers, government school teachers, private school teachers, female teachers and higher secondary teachers (PGT).

### **CONCLUSION**

Teachers with high level of innovative work behaviour are the need of the hour. The present day schools teachers are loaded with a lot unique challenges. Teachers are publically accountable. Teachers have shared responsibility for the academic achievement of their learners. Innovative teaching styles and innovative assessment methods bring about a lot of change among the learners. Innovativeness and ingenuity go hand in hand. Innovations in the context of teaching bring about significant changes in the learning environment and this contributes to the betterment of the learner. In Tamil Nadu, the system of continuous comprehensive assessment (CCA) is followed at the high school level and this gives more room for innovative practices. The level of innovative work behaviour of teachers needs to be assessed grade wise, subject wise and topic wise. Teacher self-efficacy in achieving desired academic goals and bench marks should be measured along with academic achievement tests. Greater levels of innovative work behaviour will result in higher levels of teacher self-efficacy and when this is collectively done by all teachers of a school it will result in better academic standards of the learning community. Developing high levels of collective teacher efficacy looks demanding in government schools than in private school, but it is not impossible. Such collective-efficacy of teachers, once established will always thrive. Schools characterized with high levels of collective teacher efficacy are more likely to accept challenging goals and are less likely to give them up even when there are adverse challenges. Schools that show low academic achievement standards show less collective teacher efficacy. Teachers of such schools are less likely to take accept responsibility for the low academic achievement standards of the learners and they may attribute such a performance to student risk factors such as poverty, poor standard of living and limited knowledge of English. Hence greater levels of collective-efficacy can bring about better academic achievement irrespective of socio-economic status of the learner. Therefore teachers need to be confident about their effectiveness and commitment towards teaching-learning processes.

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