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Teacher Effectiveness and Digital Competence of High School Teachers in Shopian, District, Jammu and Kashmir

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Abstract

Effectiveness of teaching is essential condition, to make learning more meaningful, clear and fruitful to a student. Through the present study an attempt has been made by the investigator to study the Teaching Effectiveness and digital competence of High School Teachers in the Shopian District of Jammu and Kashmir. Two scales were adopted and applied in the study namely (i) Teacher Effectiveness Scale (KTES) developed by the investigator (2021) and (ii) the Digital Competence scale developed by Ramakrishna (2017) for collection of the required data. The sample for the study was 330 (190 Male and 140 Female) High school teachers including contractual teachers. Stratified random sampling technique is used in this study. To make the statistical analysis descriptive method has been used by the investigator in the present study. The study reveals that Teacher Effectiveness of female teachers was found to be significantly higher as compared to the male teachers. Also, Teachers having higher levels of Digital Competence were found to be more effective than those having low levels of Digital Competence.

Keywords: Teacher Effectiveness, Digital Competence, High school Teachers.

Introduction

Presently, the role of teacher is very challenging in the sense that it demands not just a high amount of intelligence owing to tremendous information-explosion, but also a higher technological empowerment with psychological stability in order to have the ability to assist their pupils choose the best pathways of learning as blended learning, online learning and learning in one's own skill. The ‘teachers of the twenty first century must own research and technology skills, apart from the typical pedagogical skills. They must become lifelong learners and keep on upgrading their professional skills in order they are able to bridge theory and practice and create a environment that is leaning in the classroom. Advanced nations are built with the aid of accomplished teachers that are knowledgeable, educated and technologically oriented. It's hallowed centers of all the world which have guided mankind also brought to humankind in progress and prosperity. These days, only those teachers who are empowered with knowledge and technological sills would have the ability to deliver. If the teacher holds on to styles and the teaching practices, he'd lose his credentials as a teacher.

Teacher Effectiveness

Teacher effectiveness describes “the effect of classroom aspects, such as pupil teacher relationship, use of educational resources, teaching methods, classroom organization and the degree of facilitation in learning." Gage (1962) described teacher effectiveness in terms of teacher impacts on the understanding of some value, in which value takes the form of some educational goals identified in terms of pupil behaviour, ability or traits. The instructor effectiveness is, in actuality, a matter of

degree to which a teacher accomplishes the desired effects upon pupils (Medley & Shannon, 1994). The term ‘teacher effectiveness' has also been characterized by scholars in a variety of ways. It's the relationship between the characteristics of teachers, teaching act and their consequences on the educational outcome of classroom teaching (Flanders & Simon, 1969) and also the capability to realize socially valued goals agreed for teachers; work especially but not exclusively, the job concerned with empowering students to learn (Jim Campbell, 2004).

Digital Competence

Digital proficiency is a person's proficiency in the sphere of a wide use of digital technologies. The term digital proficiency was used since 21 century broadening the traces of the computer literacy information visualization data and communicative competence of the term. The process of globalization scientific and technological advancement information revolution resulted in the development of a new tendency in education aiming at the creation of person's digital proficiency.

Digital Competence is the set of knowledge, abilities, attitudes (thus including abilities, approaches, values and consciousness) that are required when using ICT and digital media to execute tasks; solve problems; convey; manage information; collaborate; create and share content; and build knowledge effectively, efficiently, appropriately, critically, creatively, autonomously, flexibly, ethically, reflectively for leisure, work, involvement, learning, socializing, consuming, and empowerment. The European Commission issued in 2006 that the" Recommendation on key competences for lifelong learning" and stated the characteristics of the electronic proficiency, the fourth one of them (Commission of the European Parliament, 2006). For the European Commission that the development of digital competence relies on the confident and critical use of Information Society Technology (IST) for work, communication and leisure and is underpinned by basic skills in ICT: that's the use of computers to retrieve, assess, store, produce, present and exchange data, and to communicate and take part in collaborative networks through the Internet. The issues caused the definition of work programs for the development of frameworks for digital proficiency evaluation and the development of approaches helping pupils construct competence that was sound. According to Sharma (2013), digital proficiency is mostly understood as more than just the capability to use software or function digital devices, and involves “a massive range of complex skills -- cognitive, motor, sociological, and psychological -- users need to have to be able to utilize digital environments efficiently."

Objectives of the study

The study has been conducted to achieve the following objectives:

- To study the level of teacher effectiveness of high school teachers.
- To study the level of Digital Competence of high school teachers
- To study the teacher effectiveness of high school teachers in terms of gender.
- To study the Digital competence of high school teachers in terms of gender.

Hypotheses of the study

The following are the hypotheses of the study:

- The level of Teacher Effectiveness of high school teachers is average.
- The level of Digital Competence of high school teachers is average.
- There is no significant difference between Teacher effectiveness of high school teachers with respect to gender.
- There is no significant difference between Digital Competence of high school teachers with respect to gender.

Methodology

In the present study, the investigator used the Normative Survey Method to gather information and analyses the data.

A. Sample of the study

B. Sampling is the soul of research. E. Bright Wilson states, 'The world is too vast and complicated to be treated as a whole, so a manageable part of it has to be chosen for monitoring". Sampling is the process by which a relatively small number of steps or individuals of individuals, or events are selected and analyzed to be able to find out something about the population from which it was chosen. It is frequently desirable permit measurement of extent, save energy and time, to be able to decrease expenditure, or produce increased precision and accuracy. A sample of 330 high school teachers from Government schools in district Shopin of Kashmir valley (190 males, 140 female) were chosen through stratified random sampling technique.

Table 1. Distribution of the Sample on the Basis of Gender

S.NO	Gender	No. of Teachers	Percentage
1	Male	190	57.58%
2	Female	140	42.42%
	Total	**330**	100%

From the above table it is clear that out of 330 teachers, the present study includes 190(57.58%) male high school teachers and 140(42.42%) female high school teachers, which has been diagrammatically represented as shown below

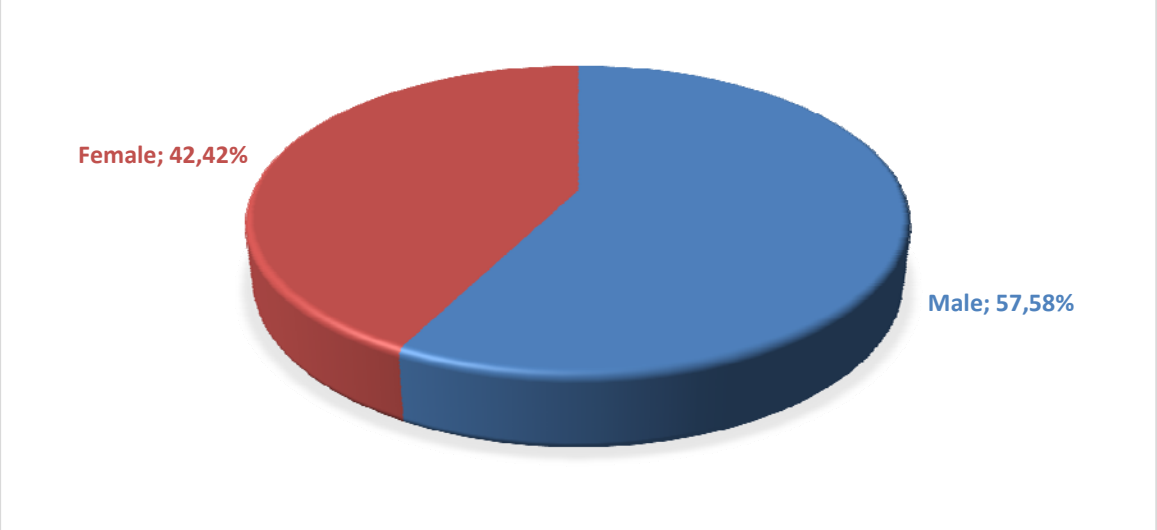

Figure 1. Diagram of male and female high school teachers

B. Statistical Techniques used in the Study

- Descriptive analysis
- Differential analysis

Results

Table 2. Teacher Effectiveness Mean and Standard Deviation Scores of Teacher Effectiveness of High School Teachers

S.No.	Sub-Variables		N	Mean	SD
1.	**Entire Sample**		**330**	**109.56**	**39.83**
2.	Gender	Male	190	102.90	37.18
		Female	140	118.60	41.63
3.	Locality	Rural	215	105.56	39.38
		Urban	115	117.04	39.76
4.	Type of Management	Government	187	102.79	39.00
		Private	143	118.61	40.00
5.	Training	Trained	175	121.26	38.64
		Un-Trained	155	96.35	37.03
6.	Marital Status	Married	176	111.71	39.94
		Unmarried	154	107.11	39.69
7.	Monthly Salary	Below 20000	155	107.67	39.24
		Above 20000	175	111.23	40.39
8.	Teaching Experience	Below 5 Years	75	108.69	34.62
		5-15 Years	133	102.65	40.41
		Above 15 Years	122	117.63	40.99
9.	Age	Below 30	103	121.67	39.83
		30-50	110	110.84	40.59
		Above 50	117	97.69	35.81

From the table 2, it is found that the mean and standard deviation of the entire Sample are 109.56 and ’39.83 respectively. So the entire sample falls in the category of average level of effectiveness (88-129). Hence the framed hypothesis is accepted and it is concluded that the level of job satisfaction is average

Digital Competence

Table 3. Mean and Standard Deviation Scores of Digital Competence of High School Teachers for Entire Samples and Sub-samples

Sl. No.	Sub-Variables		N	Mean	SD
1.	**Entire Sample**		**330**	**156.34**	**47.57**
2.	Gender	Male	190	163.87	41.22
		Female	140	146.12	53.52
3.	Locality	Rural	215	152.00	47.00
		Urban	115	164.44	47.79
4.	Type of Management	Government	187	149.12	46.32
		Private	143	165.79	47.69
5.	Training	Trained	175	169.94	45.97
		Un-Trained	155	140.99	44.72

Sl. No.	Sub-Variables		N	Mean	SD
6.	Marital Status	Married	176	158.84	47.93
		Unmarried	154	153.48	47.16
7.	Monthly Salary	Below 20000	155	154.40	46.79
		Above 20000	175	158.06	48.33
8.	Teaching Experience	Below 5 Years	75	163.74	44.08
		5-15 Years	133	155.43	45.86
		Above 15 Years	122	152.78	51.22
9.	Age	Below 30	103	170.23	47.68
		30-50	110	157.97	48.83
		Above 50	117	142.58	42.61

From table 3, it is found that the mean and standard deviation of the entire Sample are 156.43 and 47.57 respectively. So the entire sample falls in the category of average level of digital competence (126-158). Hence the framed hypothesis is accepted and it is concluded that the level of digital competence is average.

To find out the significant difference between the teacher effectiveness scores and of the two sub-groups the 't' value for teacher effectiveness has been calculated.

Table 4. Mean difference between Male and Female High School Teachers in Teacher Effectiveness

Variables	Gender	N	Mean	SD	't' Value	Level of Significance
Teacher Effectiveness	Male	190	102.90	37.18	3.60	Significant at 0.05 level
	Female	140	118.60	41.63		

It is found from the table 4. that the calculated 't' value is 3.60 which is higher than the table value 1.96 at 0.05 level of significance. Hence the above Stated null hypothesis is rejected and it is concluded that male and female high school teachers differ significantly in their teacher effectiveness.

To find out the significant difference between the digital competence scores and of the two sub-groups the 't' value for digital competence has been calculated.

Table 5. Mean difference between Male and Female High School Teachers in Digital Competence

Variables	Gender	N	Mean	SD	't' Value	Level of Significance
Digital Competence	Male	190	163.87	41.22	3.40	Significant at 0.05 level
	Female	140	146.12	53.52		

It is found from the table 5, that the calculated 't' value is 3.40 which is higher than the table value 1.96 at 0.05 level of significance. Hence the above Stated null hypothesis is rejected and it is concluded that male and female high school teachers differ significantly in their digital competence**.**

Discussion

The present study indicated that the Teacher's Effectiveness and Digital competence of high school teachers is average. The reason for average effectiveness might be lack of personalized and novel teaching strategies relevant to the present educational scenario, lack of planning and preparation of teaching, lack of current knowledge of the subject matter, for digital competence the reason might be unequal accessibility towards digital equipment, unavailability of resources, attitude towards embracing change and novelty. The teacher effectiveness of female high school teachers was found to be more as compared to their male counterparts. The reason might be the affectionate and empathetic attitude of female teachers towards the students that are often found to be absent in male teachers. Hence the students connect well with female teachers than their male counterparts. The male high school teachers were found high digital competence as compared to female high school teachers. The reason might be that male high school teacher has the scope to take part in different types of computer courses and other technology-related online programmes as compared to female high school teachers.

Delimitations of the Study

The study was delimited with respect to the following:

- The study was conducted only on 330 High school Teachers of Shopian District of Kashmir Valley.
- The study was confined to only two variables, Teacher Effectiveness and Digital Competence.

Conclusion

In order to boost the standard of instruction, we need teachers. Teacher efficacy is also an important prerequisite for quality education and the need for hours. Teacher effectiveness is the measure of success in carrying out institutional and other defined responsibilities, of teacher demanded by the character of his or her position. Teachers are the natural role models to the younger generation. Today's teachers are required to be effective and truer. Nowadays, in the globally connected contemporary world of knowledge, the sharing of information is taking place through digital media and technologies to such an extent that digital competence has become an essential survival skill for effective transmission of knowledge for denizens. Students are learning through smart classrooms and internet-based technologies, which necessitates the mastery of digital competencies among their teachers. Thus, the effectiveness of teachers is very significant as for their role as agents of meaningful knowledge transmission, which in turn depends on their teacher effectiveness, job satisfaction and digital competence.

In order to be able to articulate instruction with a new paradigm of learning, be supportive in dealing with a new set of students belonging to various age groups, diverse ethnicity and use a broad range of backgrounds and previous knowledge, teachers have to be lifelong students themselves. Teacher effectiveness is essential because successful teaching helps pupil learning. As the focus on quality in higher education has improved, it's become even more significant. It becomes clear that teacher efficacy is directly related to student achievement. In addition, the attributes of a successful teacher have an influence on students' performance. Successful teachers strive to motivate and engage all their students in learning rather than simply accepting that some pupils cannot be participated and are destined to perform. They believe each student is capable of achieving success and they do all they can to find ways of making each student successful. Hence, the high school teach-

ers, by being the role models for their students, can mould their pupils with good character, better knowledge of the subject matter, social intelligence, emotional maturity and the like required for a balanced progressive life.

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