

EXPERIENCE OF FLOW AND CREATIVITY IN RELATION TO THE TEACHER EFFECTIVENESS OF UPPER PRIMARY SCHOOL TEACHERS

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Abstract:

The two Ts identified by Samagra Shiksha Abhiyan for achieving quality in education are: teacher and technology. This study investigates the experience of flow and creativity in relation to the teacher effectiveness. This research uses hitherto unexplored concept of flow and its influence on teacher effectiveness in the Indian context. Flow describes a psychological state of optimal attention and engagement. The correlational analysis of the quantitative study, carried out in Greater Mumbai Educational District, has revealed a significant relationship between the experience of flow and teacher effectiveness. The regression equation estimates 35.9% as the influence of the experience of flow on teacher effectiveness while there was no significant relationship found between creativity and teacher effectiveness.

(Keywords: [I20] *Teacher Effectiveness, teachers, creativity, education;* [I31] *Flow-experience, well-being*)

Introduction

Education is for transformation. G.K. Chesterton would say that, ‘if, in the end, it (education) does not empower and transform, then, it is not education at all.’ The *Samagra Shiksha Abhiyan* begins its draft document by affirming that, “Education is the most important tool for social, economic and political transformation and a key instrument for building an equitable society” (Samagra Shiksha Abhiyan, 2018). A transformative education is one in which a student is incrementally invited to engage life, to reflect upon it and, then, to be of service to our world. A teacher plays a vital role in achieving this aim of education. Teachers can achieve these aims only if they themselves are able to engage, reflect and have been of service.

Significance of the study

Flow – a branch of positive psychology dealing with the phenomenology of enjoyment and engagement incorporates in itself some key elements of effectiveness such as internal motivation, total

absorption and production of something creative, original and constructive.

The two independent variables undertaken in this study, namely, the experience of Flow and creativity can be acquired and cultivated. Thus, this study has significance both at the institutional as well as individual level. At the institutional level, the findings can be useful in selection of candidates at the pre-service as well as the in-service levels. NCTE could improve the teacher aptitude tests by including indicators of flow, so that only those candidates with the right aptitude and penchant for teaching get into the teaching profession. Educational institutions can use the findings to make selection of teachers more efficient and reliable.

The in-service teachers can be trained to make the experience of flow a habit and this will improve the effectiveness of the school as a whole. The pupil will be the greatest beneficiary of an effective teacher.

Statement of the problem

“A Study of The Experience of Flow and Creativity in Relation to The Teacher Effectiveness of Upper Primary School Teachers”

Operational definitions

The Experience of flow

The experience of flow is defined as a complex and positive state characterized by deep involvement and absorption, supporting personal growth, well-being and optimal functioning in daily life. In the present study, the experience of flow is defined in terms of the frequency of experiencing the following eight dimensions in the context of a teacher: challenge and skill balance, merging of action and awareness, clear goals and feedback, concentration on the task at hand, sense of control, the loss of self-consciousness, the transformation of time, and autotelic experience.

Creativity

Creativity is a mental process involving the generation of new ideas or concepts or new association of the creative mind between existing ideas or concepts. Creativity in the present study is the sum total of fluency, flexibility and originality.

Teacher Effectiveness

In the present study, teacher effectiveness refers to the competencies of teachers in relation to the five dimensions, namely, preparation and planning for teaching, classroom management, knowledge of subject matter; its delivery and presentation including black-board summary, personality characteristics of teachers and interpersonal relations of teachers with others.

Objectives

- To study the level of the experience of flow, creativity and the teacher effectiveness of the upper

primary school teachers.

- To study the relationship among the experience of flow, creativity and teacher effectiveness of the upper primary school teachers.
- To study the influence of the experience of flow on creativity and teacher effectiveness of the upper primary school teachers.
- To find out whether there is any significant factor with positive loading of the variables namely, the experience of flow, creativity and teacher effectiveness.

Hypothesis

- There is no significant relationship among the experience of flow, creativity and teacher effectiveness of the upper primary school teachers.
- There is no significant influence of the experience of flow on creativity and teacher effectiveness of the upper primary school teachers.
- There is no significant factor with positive loading of the variables namely, the experience of flow, creativity and teacher effectiveness.

Methodology

The present investigation is a quantitative research using descriptive survey method.

Population and Sample

The upper-primary school teachers teaching in aided and un-aided English medium schools of Greater Mumbai Educational District formed the population of the study.

Tools used

- ArulHari-Teacher Flow Scale (TFS-AH) developed and validated by Arul John Bosco and Harichandan (2017). The reliability of the tool was found to be 0.83
- The Battery of Creativity Test prepared and standardized by Venkatarami Reddy (1989) and
- Kulsum Teacher Effectiveness Scale (TES-ku) developed and standardized by Umme Kulsum (2011).

Data Collection

The investigator personally visited the schools and administered the tools to the upper primary school teachers. The battery of creativity tests without time limit was administered first. After a short break, the teacher effectiveness scale and teacher flow scale were given to the teachers to fill.

Analysis and interpretations of data

Descriptive as well as inferential data analyses led to the following findings:

- It is inferred from the 't' test that the unaided upper primary school teachers have more experience of flow than the aided school teachers.
- The ICSE school teachers are better in their creativity than the SSC school teachers.
- The calculated ANOVA as well as the observed post hoc homogeneous subsets revealed that teachers with M.Ed. and above professional qualification have more experience of flow than those with D.Ed. or B.Ed. qualifications, while the D.Ed. qualified teachers are better in their teacher characteristics than the others.
- The science faculty teachers are better in their originality and creativity than the teachers of other faculties.
- The teachers with teaching experience of 20 years and above experience more flow and are better in creativity as compared to the others.
- The teachers with class size of 35 to 55 students are better than the others in creativity and all its dimensions.
- The correlational analysis found that there is significant relationship between the experience of flow and teacher effectiveness and all its dimensions in terms of total population as well as of female upper primary school teachers.

The relationship is shown in table 1.

TABLE 1

Relationship Between the Experience of Flow and Teacher Effectiveness of Upper Primary School Teachers in Relation to Total Sample and Gender

Sample Group	Calculated 'γ' Value	df	Calculated 'p' Value	Critical 'γ' at 1% Level	Critical 'p' Value	Remarks at 1% Level
Total sample	0.360	342	0.000	0.148	0.05	S*
Female	0.381	310	0.000	0.182		S
Male	0.266	30	0.141	0.361		NS**

* Significant

** Not significant

- The regression analysis reveals that there is significant influence of the experience of flow and creativity on teacher effectiveness of upper primary school teachers. Table-2 reveals the calculated R^2 value which is found to be 0.129 which represents 12.9% of influence of the two predictors namely the experience of flow and creativity on teacher effectiveness of the upper

primary school teachers. The regression equation of Y on X presented in table-3 reveals that 35.9% is the influence of the experience of flow on teacher effectiveness.

TABLE 2

The Influence of the Experience of Flow and Creativity on Teacher Effectiveness of Upper Primary School Teachers

Model	Sum of Squares	df	Mean Square	Calculated 'F' Value	R	Calculated 'R ² ' Value	Calculated 'p' Value	Remarks at 5% Level
Regression	4439.661	2	2219.831					
Residual	29860.339	341	87.567	25.350	0.360	0.124	0.000	S
Total	34300.000	343						

TABLE 3

Table Formulating Regression Equation Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	31.802	3.512		9.055	0.000
Experience of Flow	0.359	0.051	0.359	7.103	0.000
Creativity	0.004	0.051	0.004	0.088	0.930

The regression equation of Y on X is expressed as follows:

$$\hat{Y} = aX + bZ + k$$

where, \hat{Y} = Dependent variable

X = Predictor 1

Z = Predictor 2

k= Constant

Regression Equation:

$$TE = 0.004 C + 0.359 EF + 31.802$$

where, TE= Teacher Effectiveness

C= Creativity

EF= Experience of Flow

It is inferred from the table above that 35.9% is the influence of the experience of flow on teacher effectiveness.

- The factor analysis of the variables yields two factors with considerable factor loading as given in table-4. Teacher effectiveness and the experience of flow yield one factor and creativity and its dimensions yield a second factor. The combination of teacher effectiveness with creativity could be called as flexi-fluent-creative- teacher effectiveness.

TABLE 4**The Factors Structure Obtained for the Variables**

	Rotated Component Matrix	
	Component	
	1	2
Experience of Flow	0.422	-
Preparation and Planning for Teaching	0.923	-
Classroom Management	0.932	-
Knowledge of Subject Matter	0.950	-
Teacher Characteristics	0.959	-
Inter-Personal Relations	0.809	-
Teacher Effectiveness	0.994	-
Fluency	-	0.952
Flexibility	-	0.958
Originality	-	0.939
Creativity	-	0.993

Discussions and Educational Implications

Out of the many findings emerged from the study, two findings are chosen here for discussion: one where there is highly significant relationship and the other where there is none.

- There is highly significant relationship between the experience of flow and teacher effectiveness and all its dimensions. This finding is true for the total sample as well as the female population. The regression equation estimates 35.9% as the influence of the experience of flow on teacher effectiveness. The estimated influence could be attributed to challenge and skill balance which is an important dimension of flow (Yang, 2018). The considerable balance between challenges teachers face in their profession and their skills (through subject mastery, planning, preparation and management) to perform the tasks could be one reason for the estimated influence of flow on teacher effectiveness. Another reason could be that a teacher with a clear goal prepares, plans and manages effectively. Similarly, unambiguous feedback through classroom management and inter-personal

relations facilitates greater effectiveness in their profession. The dimensions of flow, namely, clear goal and feedback also could have influenced the teacher effectiveness. The other dimensions of flow such as, immersion in activity and internal motivation could also have influenced teacher effectiveness (Ljubin-Golub, 2018). The remaining 64% of influence on teacher effectiveness may be due to certain individual and environmental factors. There is evidence that individual factors such as general intelligence, thinking style (Kaur, 2014), problem solving skills (Kumari, 2018), emotional intelligence (Reddy, 2018; Joshi, 2015) and the environmental factors such as supportive administration (Elif,2019; Cockpim,2019) and supervised guidance (Aja 2017) influencing teacher effectiveness.

- The study found that there is no significant relationship between creativity and teacher effectiveness of upper primary school teachers. The creativity of the teacher is not significantly influencing teacher effectiveness. The factor analysis too elicits that creativity and teacher effectiveness are two distinct factors. It also emerges that a teacher need not be creative in order to be effective. This finding throws open a discrepancy between the ideal and the ground reality. The reason for this could be that overemphasis on completing syllabus and getting ready for the exam which jeopardizes the vital long-term goal of holistic formation of the student. Consequently, we have teachers who are efficient in getting their students score the highest grades in exams. The more important pursuit of helping the pupil realize his/her potential and be an agent of transformation require much reflection and creativity on the part of a teacher. This perhaps is wanting. It is the collective responsibility of the government, management and individual teachers to fix this glaring gap. Finally, the very definition of teacher effectiveness also should be broadened to include creativity as an integral part of teacher effectiveness.

Recommendations

On the basis of the research findings, the following recommendations are made:

1. Pre-service training: An instructional design could be developed for the diploma in Elementary Education curriculum to identify and develop antecedents of flow and creativity which in turn will help the prospective teachers effective in their profession.
2. Ongoing formation of the in-service teachers: Since flow and creativity can be cultivated, modules can be developed and used for in-service teachers training.
3. Assessing the Aptitude for teaching using flow model: Through tests one can identify the flow-proneness of an individual. Such tests can be developed, standardized and used to assess the aptitude of a student desiring to become a teacher. Thus, few items/questions on flow could be incorporated in the entrance tests for the teacher education institutions.

Finally, teachers who in flow and creativity are able to engage, reflect and serve. These are the teachers who would be able to empower the students and make them the agents of transformation.

References:

- Aja, S. N. and Prisca, I. E. (2017): “Place of Instructional Supervision in Enhancing Public Primary School Teachers’ Effectiveness,” *Educational Research and Reviews*, 12(7): 467-472.
- Arul John Bosco, M., and Harichandan, D. (2018): “Implications of Flow in the Context of New Trends in Education,” *University News*, 56(50): 3-5.
- Cockpim, J., and Somprach, K. (2019): “Learning leadership of school administrators and teaching behaviour affecting the effectiveness of teacher professional development: hierarchical linear model,” *The Turkish Online Journal of Educational Technology*, 18 (2): 52-57.
- Csikszentmihalyi, M. (1990): *Flow: The Psychology of Optimal Experience*. New York: Harper Perennial.
- Government of India. (2018): *Samagra Shiksha Abhiyan*, Draft Document. New Delhi: MHRD. Department of School Education and Literacy.
- Harmat, L., Anderson, F, Ullen, F., Wright, J, and Sadlo, J. (2016): *Flow Experience: Empirical Research and Applications*. Switzerland: Springer.
- Joshi, C. (2015): “A Study of Teacher Effectiveness and Occupational Stress in Relation to Emotional Intelligence,” *Shaikshik Parisamvad (SPIJE)*. Vol. 5, No. 1. pp. 43-49.
- Kothari, C.R. (2004): *Research methodology: Methods and Techniques (2nd ed.)*. Delhi: New Age International Publishers.
- Kulsum, U. (2011): *Manual for Teacher Effectiveness Scale (TES-ku)*. Agra: National Psychological Corporation.
- Kumari, L. (2018): *Effect of Personality Development Module on Teacher Effectiveness and Problem-Solving Skills of Teacher Trainees in Relation to Locus of Control*. Panjab University. <http://hdl.handle.net/10603/245835>
- Ljubin-Golub, T., Rijavec, M. and Jurcec, L. (2018): “Flow in the Academic Domain: The Role of Perfectionism and Engagement,” *Asia-Pacific Education Researcher*, 27(2): 99-107.
- Rao, U. (2018): “Creativity: A Must for Joyful Learning,” *Edutracks*, 18(2): 15-18.
- Reddy, B. J. and Rao, D. B. (2018): “Emotional Intelligence and Teacher Effectiveness of Secondary School Teachers,” *International Journal of Advanced Education and Research*, 3(1): 11-14.
- Sherhoff, D. J., and Csikszentmihalyi, M. (2009): “Flow in Schools: Cultivating Engaged Learners and Optimal Learning Environments”, in R. C. Gilman, Heubner, E. S. and Furlong, M. J. (eds.), *Handbook of positive psychology in schools*, New York: Routledge. pp. 131–145.

- Toor, K. K. (2014): “A Study of Teacher Effectiveness, General Intelligence and Creativity of Secondary Teachers,” *MIER Journal of Educational Studies, Trends and Practices*, 4(1): 51-65.
- Yang, J. C., and Benazir, Q. (2018): “Individual Differences in An English Learning Achievement System: Gaming Flow Experience, Gender Differences and Learning Motivation,” *Technology, Pedagogy and Education*, 27(3): 351-366.