

Periodic Research

Gender and Its Effect on Novelty and Creative Aspect of Distance Education Teachers



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Abstract

Purpose

The purpose of the study was to determine whether gender has effect on novelty and creative aspect of novice teachers.

Method

N=300 as novice teachers were identified as sample for the present study. 150 males and 150 females were drawn as a sample studying through the mode of distance education. Data was collected through a self-made questionnaire. Mean, ANOVA and t-ratios were employed to determine the effect of gender on novelty and creative aspect.

Results

The findings of the study revealed that novice teachers exhibit significant differences on the creative aspect at 0.01 level and for novelty at 0.05 level.

Conclusions

Distance education students are able to create variations in various domains and disciplines but lag behind in application prospects because their mode of education is not based on their day-to-day interactions with teachers, peers and so on. The findings of this study were supported by the research work conducted by Perkins (1981); who conceived creative aspect of an individual as a variation in conceptualizations of various domains and disciplines. He further advocated that creative aspect varies with applied and non-applied contexts. The present study findings are also consistent with the research findings of Claxton (1997); who advocated that above average novelty seekers needs stimulation because they have to distinguish, challenges that one can met with cleverness, focus on deliberations because it can be handled only with patience, intuition and relaxation. No doubt the present findings show significance at 0.05 level which are indeed too less for teachers of present era where knowledge is increasing manifolds day-by-day.

Keywords: Creative Aspect, Elaborating, Expertise, Flexibility, Gender, Novelty, Novice Teachers, Utilitarian

Introduction

For a layman, novelty means surprising, unusual, different and new information. But, going by the aspect of teaching and learning, novelty lies in expectations and experiences of students learning to become teachers of tomorrow. On the other hand, creative aspect is the inner potential of an individual which gets improved by being aware. This means novelty and creative aspect are the motivating factors for teachers of today. But, it is visualized that teachers of today and would be teachers of tomorrow are lagging behind in both these aspects because of the fixed syllabi and that too extra large. So, these are some of the reasons which made a necessity to explore teachers' novelty and creative aspect especially when the teachers are drawn from distance education program. It is learnt that, they are not provided with experiences which have everyday variety, discussion and conclusions. So, this missing gap makes the teacher rigid who lag behind in flexibility of ideas. Further, the experiences faced by the teachers vary in accordance to the subject they teach and study and reading motivation they possess. **Morrow (1997)** witnessed creativity as willingness to try new things whereas **Hidi (2001)** conceived novelty among students as learning promoted by student learning involvement and achievement.

Further, teaching as a professional career witnessed gender as an equalizer for women (**Sullivan and Meek, 2012**). In teaching as a career,

women and men express differently on the ventures and activities which represents novelty and creative aspect. A growing number of studies have shown that women exhibit lower creative aspect than men [Lau and Li (1996); Potur and Barkul (2008); Bourke and Adams (2011); McNair (2012)] and an equal number of studies [Scholastic and Yankelovich (2008); Sheorey and Mokhtari (2001); Vysal (2008); McGeown (2012)] have shown gender variation in novelty aspect of novice teachers.

For the present study, the novice teachers were drawn from distance education programs where they have gone with less number of interactions, discussions and participation with teachers as experts and mentors. Keeping the nature of distance education programs in mind, the researchers felt that novelty and creative aspect of learning can be a missing feature among novice teachers and it must be worked out. Keeping this in mind the present study was planned and worked out.

Operational Meaning and Definitions of the Terms Used

For a better understanding and appreciation the following terms are defined in accordance to the undertaken study;

1. **Gender-** It refers to the characteristics commonly associated to males or females
2. **Novice Teachers-** As would be teachers' studying by mode of distance education.
3. **Novelty-** It is a learning outcome which depends upon tapping thrill, change of routine, surprised by something new and different.
4. **Creative Aspect-** It is an asset for being successful by concentrating on individual differences; expertise to try new things and greater awareness.

Review of Related Literature

The Related Literature for the Present Study is Presented Under the Headings

Review related to novelty; review related to creative aspect and review related to relationship of gender with novelty and creative aspect.

Review Related to Novelty

Hidi (2001) explored that novelty has an impact on students' learning by promoting student learning involvement and achievement.

Holden (2004) conceived novelty as a 'creative activity', shaped by readers' expectations, experiences as well as the social contexts in which it takes place.

Nouri, Erez, Rockstuhl and Ang (2008) regarded novelty of ideas as elaboration of usefulness and appropriateness.

Miles (2010) conceived learning process as; subject matter, content knowledge, novelty and solid understanding of reading.

Going by the above reviews, it can be concluded that novelty in learning process changes in accordance to readers' experiences and expectations by elaborating the learning process with usefulness and appropriateness and that according to the needs and requirements of an individual.

Review Related to Creative Aspect

It is a style of response associated to greater awareness, exploration and willingness to try new

things which provides self-confidence to an individual.

Cattell (1971) regarded creativity as a particular ability for problem solving activities, problem seeking and problem finding.

According to Perkins (1981); creative aspect of an individual create variations by laying thrust on conceptualizations, domains, disciplines that bear on study, empirical methods and levels of analysis, as well as research orientations that are both basic and applied and applied in varied contexts.

Gibby (1983) conceived creative aspect as; new, different, unexpected ideas, firsthand experience, problem solving, wide and deep analysis of a problem or a situation. He further stressed creative thinking as a mean of producing something new for people. A creative person should possess intelligence, awareness, originality, persistence and nonconformity.

Shukla and Sharma (1987) conceived creative expression as a unique production and process responsible for some creative contribution in the field of thinking, science and technology.

Boden (1990) stated creativity as an ability to synthesize and combine data and information which requires confidence to take risks.

Garrison (1997) described creative aspect as a mean towards greater awareness of the subject matter and responsibilities in making learning more meaningful.

Özcan (2010) examined correlation of creativity with current thinking and learning. The results of his study showed that creative thinking abilities and relationships are affected by teaching learning strategies such as; reading with interest and quality with learning.

Samantaray and Tripathi (2010) highlighted that innovation and creativity among teachers helps to create and maintain healthy work environment among teachers. They further stressed that unhealthy work force with no creativity and innovation lead towards poor outcomes and poor morale among teachers.

Reilly and Kronish (2011) conceptualized creativity as divergent way of doing things, conflictizing and subject to diverse perception of any human activity.

McNair (2012) recommended that creativity is inspired by personal motivation which an individual gets from educational experiences and his engagement levels with the classroom and learning activities.

Al-Hattami, Muammar and Elmahdi (2013) embarked that creativity and innovation in teaching encourages teachers to become outstanding by concentrating on domain and thus enhancing the learning outcomes simultaneously.

Khany and Boghayeri (2014) conceived creativity as an asset for being successful. They further highlighted that teachers' creativity index can be assessed on three main components; individual differences; expertise and management.

At last, it can be concluded that creative aspect for a teacher is a path attained to deal with knowledge and subject matter in a way which is original and new. This means novice teacher by following and adopting new and novel methods

contributes towards greater awareness and enhanced potential.

Review Related to Relationship of Gender with Novelty and Creative Aspect

Allport, Vernon and Lindzey (1970) conducted research on graduate students and found that males scored higher on scales of theoretical, economic and political issues whereas females scored higher on scales of social, religious and aesthetic issues. The findings of the study further highlighted that men exhibit higher creativity towards subjects related to mechanics, science, mathematics, business management and medical sciences.

Featherstone (1993) and Bransford et al (2000) advocated that novice teachers have a wealth of information from their training as well as they have a vast memory of their own teachers and classroom settings in which they have learnt. Therefore these memories play a crucial role for novice teachers to create something new from these and develop their own persona.

Lau and Li (1996) examined 633 Chinese students studying in the schools of Hong Kong. The findings of the study reflected that boys were more creative than girls.

Anderson (2007) observed gender differences in creativity which used involve technology and its consequent impact on learning both at home and institutions. His study noted that young people experiment with technology and use abilities related to information processing, reflective and critical thinking, creative and meta-cognitive skills.

Potur and Barkul (2008) examined issues related to creative thinking. The findings of this study reflected that women under-represent creative fields because of their physical and psychological differences. The study further revealed that girls and women remain substantially under-represented in mathematics, science and technology in school and at their workplace.

Saha (2010) conducted research to determine creativity in relation to sex, socio-economic status and environment. The findings of the study revealed that male and female do not differ significantly in their creative aspect.

Mishra and Yadav (2012) reviewed the working of male and female pre-service teachers and noted that gender contributes towards emphasizing dimensions such as; aesthetic, job related ideas, self-confidence and so on. The results of the study further revealed that males are better than females on aspects such as; novelty, self-confidence because of their nature consisting of freedom and autonomy.

Rationale of the Study

The concept of novelty and creative aspect has psychosocial connotations. So, most of the research work based on these concepts have psychological and sociological overtones. Researchers like; [Cattell (1971); Perkins (1981); Gibby (1983); Shukla and Sharma (1987); Boden (1990); Garrison (1997); Özcan (2010); Samantaray and Tripathi (2010); Reilly and Kronish (2011); Al-Hattami, Muammar and Elmahdi (2013); Khany and Boghayeri (2014)] have studied creativity as knowledge creation and exploration of new ways for

doing things. But according to **Oslo (2005)**; creativity is an ability to combine knowledge across science to technology; arts to design, arts to craft design, science to research and entrepreneurship. This diverts our attention that creativity is an application of knowledge which has a utilitarian sense. This means that this could be applied in teaching and learning situations by teachers who are in the habit of creating originality by a unique expression of doing things. On the other hand, novelty is not a unidimensional idea and cannot be measured under single aspect. The present study studied novelty under aspects such as; change from routine, surprise, thrill, boredom alleviation. Going by the study conducted by **Lee and Crompton (1992)**; who proposed six dimensions of novelty but ended up with four viz; 'thrill', 'change from routine', 'boredom alleviation' and 'surprise'. They further stressed that thrill incorporates an experience where as excitement is an essential element required to change from routine works with something new and different than the ordinary, whereas boredom alleviation involves stimulating activities that satisfy an individual's need for something out of the ordinary and surprise relates to the unexpected difference between perception and reality. Taking these four dimensions into consideration, a self made questionnaire was planned used to measure novelty and creative aspect by making statements related to these aspects. The present study takes into consideration four aspects of novelty ranging from; change from routine, surprise, thrill, boredom alleviation and an equal number of dimensions for creative aspect also viz; greater awareness, willingness to try new things, new ways to think and perform, divergent ways of doing things. Taking these into consideration, a tool was used to study novelty and creative aspect of novice teachers. The studies conducted by [**Hidi (2001)**; **Holden (2004)**; **Nouri, Erez, Rockstuhl and Ang (2008)**; **Miles (2010)**] reflected only one dimension of novelty but not their co-joint effect. Further, these studies were not conducted on teachers especially novice. So, it was felt that there was need to work on creative aspect and novelty as a whole. It was presumed when they are studied in relation to the extent to which gender at its two levels; male or female vary; it can give results which can help the teachers and educational planners to plan education which bring out the best of these aspects among teachers' of today and tomorrow.

Statement of the Problem

The title for the present problem is precisely stated as; Gender and its Effect on Novelty and Creative Aspect of Distance Education Teachers

Objectives

1. To work out gender differences among novice teachers on novelty.
2. To identify gender differences on the creative aspect among novice teachers.

Hypotheses

1. No significant differences will be observed among male and female novice teachers on aspect of novelty.
2. No significant differences will be visualized among male and female novice teachers on the creative aspect.

Design of the Study

The present study was conducted as per requirement of factorial design in which the effect of gender as an independent variable varies at two levels (S1 and S2) and was studied on dependent variables viz; novelty and creative aspect.

Statistical Techniques Used

t-ratios and Analysis of Variance as statistical tools were employed for testing the hypotheses.

Questionnaire as a Tool

To measure novelty and creative aspect of novice teachers a self made questionnaire was developed which consisted of 3 parts.

Section-A Pertained to Background Variables

It includes name, gender (male or female), address, education and qualification and marital status; section-B- consisted of twelve statements emphasizing on; tapping of thrill, change of routine, surprising with new and different information; section-C consisted of twelve statements concentrating on; individual differences, expertise to try new things and

greater awareness. In total, there were 24 statements and all responses to them were collected on Likert 5-point scale ranging from 1-strongly disagrees, 2-disagree, 3-undecided, 4-agree and 5-strongly agree. The content validity was checked by 06 experts and reliability of the tool was measured by employing Cronbach Alpha method and it came out to be 0.91.

Methodology and Results

11.a Analysis for the Main Effects of Gender on Novelty

Table-1
Summary table Indicating Effect of Sex (S) on Novelty

Symbol	Sum of squares	df	Mean square	F-value	p value/Remarks	Level of sign.
S	91.176	1	91.176	8.244	0.040/SD	0.05

The above table reveals that main effect of S is significant at 0.05 level. As the F-value (8.244) for gender was significant, it was considered necessary to find direction of variance, so t-value was calculated.

Table-2
t- ratio for Variable Sex (S)

Symbo I	N	Mean	SD	SEM	Treatment Level	t-Value	p value/Remarks	Level of sign.
S1	174	12.46	4.946	0.169	S1-S2	-4.318*	0.044/SD	0.05
S2	126	15.33	2.049	0.104				

*Significant at 0.05 Level of Confidence

The table-2 deals with direction of variance and it indicates that t-ratio (-4.318) for differences between means of two levels of sex is significant at 0.05 level which shows that male teachers differs on novelty than female novice teachers. Further, from the table observation of means for gender levels given in the above table shows that mean values of S1

(M=12.46) were slightly less than that of S2 (M=15.33). Thus, it can be inferred that the novice male teachers have scored significantly higher on novelty as compared to their counterparts.

11.b Analysis for the Main Effects of Gender on Creative Aspect Among Novice Teachers

Table-3
Summary Table Indicating Effect of Sex (S) on Creative Aspect

Source of Variation	Symbol	Sum of squares	df	Mean Squares	F-Value	p value/Remarks	Level of Sign.
Sex	S	241.203	1	241.203	13.090	0.000/SD	0.01

The above table reveals that main effect of S is significant at 0.01 level. As the F-value (13.090) for

gender was significant, it was considered necessary to find direction of variance, so t-value was calculated.

Table-4
t-ratio For Variable Gender (S) On Creative Aspect

Levels	Symbols	N	Mean	SD	SEM	Treatment Level	t-ratio	p value/Remarks	Level of sign.
Females	S1	174	16.21	4.736	0.387	S1-S2	-3.491**	0.001/SD	0.01
Males	S2	126	18.00	4.142	0.338				

** Significant at 0.01 Level of Confidence

To examine the differences between male and female novice teachers, t-test was implied. t-ratio was calculated which indicated that t-ratio for treatment level (S1-S2) is -3.491 which is significant at 0.01 level. Thus, it can be inferred that male teachers (M=18.00) scored significantly higher on creative aspect as compared to female novice teachers (M=16.21). This may be because of greater variability in t-ratio of male and female novice teachers.

Conclusion

The findings of the study demonstrate that females are under-represented in creative activities

because of their less ability to make insights or visions with respect to creative aspect and novelty. Our findings for creative aspect and novelty are quite surprising because young women as novice teachers show no positive affect toward creative aspect and novelty relative to men as novice teachers. These findings suggest that, females find thought of creative aspect and novelty in teaching very less to generate feelings of excitement or anxiety as compared to men. These findings were supported by the study conducted by Potur and Barkul (2008); who found that women under-represent creative fields of learning because of their physical and psychological

differences. The study further revealed that girls and women remain substantially under-represented in mathematics, science and technology in school and at their workplace. The findings of the present study are in contrast with the findings of **McGeown (2012)**; who worked on students to examine sex differences in reading motivation. The results of his study further revealed that girls have significantly higher level of reading interest because of their; curiosity and involvement. On the other hand, boys read more of male oriented books as compared to females who usually read female oriented books.

Discussion and Implications

Our findings not only collaborates with prior work demonstrating significant gender differences in novelty and creative aspect of teachers, but also extend the understanding of key dependent variables of the study viz., creative aspect and novelty. As our study revealed significant gender differences among novice teachers with respect to creative aspect and novelty. So, it can guide the future researchers to make sense of these findings by incorporating the findings and aspects of the study in planning curriculum and activities for teachers under preparation and novice teachers. Further, it is believed that the results of the study shall provide an insight to novice teachers, how to improve their creative and novelty aspect and thus, contributing significantly towards as teachers' as professionals' for the future ahead.

Limitations

The present study posses certain limitations;

1. Teaching is a career which segregated by gender and in the distance education programs greater representation of novice teachers constitutes women. So, it was very difficult to find male novice teachers.
2. Conducting the data collection, we were interested for novice teachers which were young but as the data was collected we met population with age group beyond 30 years.
3. The study will be delimited only to 300 novice teachers studying by the mode of distance education.

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