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Effect of Student Evaluation of Teacher Based Feedback on Self-Disclosure of Secondary School Teachers

ABSTRACT: Self-evaluation of teachers can be considered as a process of looking at teachers' owns progress, development, and learning to determine what has improvement and what areas still need improvement. The research is aimed at finding out the effect of student evaluation of teacher based feedback on self-disclosure of secondary school teachers. This research is experimental in nature. Non-equivalent control group design, suggested by Donald T. Campbell & Julian C. Stanley (1963), was used for the experiment. Student evaluation of teacher based feedback was treatment and independent variable; self-disclosure of teachers was dependent variable; and pre – self-disclosure, pre-teaching effectiveness, and intelligence were considered as covariates. The sample of the study comprised of 70 secondary school teachers, and 220 students studying in secondary classes from purposively selected four schools of Indore city, India. The data for self-disclosure, teaching effectiveness, and intelligence were collected through standardized tools. One-way ANCOVA (Analysis of Covariance) and 2x2 factorial design ANCOVA were used for data analysis. Hypotheses were tested at level of significance with $\alpha = 0.05$. It was found that the treatment has significant effect over self-disclosure of secondary school teachers when pre – self-disclosure was taken as covariate. The results also shown that self-disclosure was independent of the treatment, when intelligence and pre-teaching effectiveness was separately considered as covariates. In addition, the study of self-disclosure was also found independent of interaction between feedback and intelligence, when pre - self-disclosure was taken as covariate. KEY WORDS: Student Evaluation of Teachers; Assessment of Teaching; Assessment of Instruction; Self-Disclosure; Secondary School Teachers.

INTRODUCTION

Today, education is considered as the most powerful mean to change the world; and teachers are considered as the central part of education. Teachers are considered to be a principal actor in the whole teaching process as well as one of its major elements when quality is concerned (Abraham, 1994; DeRoche & Williams, 1998; and Hajdin & Pažur, 2012). While, evaluation is an important component for comprehensive teacher growth and development system. The aim of teacher evaluation is to strengthen skills, the knowledge, and classroom practices

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of professional educators (Abrami, 1989; Dooris, 1997; and Vingsle, 2014).

Evaluation is a systematic determination of a subject's merit, worth, and significance using criteria governed by a set of standards. Every open and sincere evaluation of reality enhances our journey and coherence. Continuous improvement requires systematic evaluation. For a teacher, it is really necessary to be able to know whether the students are receiving his or her teachings, and environment is suitable for teaching and learning to take place. Self-evaluation can be a good tool for the assessment, but even after it always leaves so many questions unanswered as it is not from the point of view of others (Airasian & Gullickson, 1994; and Dunning, Heath & Suls, 2004).

There are three techniques of teacher evaluation: self-evaluation, students evaluation, and peer group evaluation (Angelo & Cross, 1993; and NCLRC, 2004). Firstly let us understand the meaning of all the techniques.

Self-evaluation of teachers can be considered as a process of looking at teachers' owns progress, development, and learning to determine what has improvement and what areas still need improvement (Brookfield, 1995; Sharma, 2011; and CPC, 2015). It often involves comparing a before situation with current situation. Self-evaluation gives us that we believe about our students. As we believe that all the students can learn. But it does not give us the surety that it is really happening.

Studies say that most of the teachers who are working for a number of years believe that their teachings are above average (Arora, 1976; Boice, 1992; and Hattie, 2003). But is that really? This is the question which can be answered in the best manner by only our students. Self-evaluation of teacher is a process where teachers' assessment is done by oneself, which enables one to be critically reflective about oneself as a professional and his practice.

Self-evaluation involves asking deep and searching question about self and practice. Self-evaluation helps the teachers to reflect on their own instructional task, to think about what they will plan to teach, and consider their progress and development. Hence, it can be concluded that self-evaluation of teachers is a reflective professional process that helps the teachers get to know themselves better in terms of their capabilities and area for development (Abrami & Mizener, 1983; and Hodgson & Pyle, 2010).

As students always need feedbacks of their teachers for the enhancement of their competence, for the improvement of their performance, in the similar fashion, we teachers also need to be assessed time to time for the improvement of our professional competence. In order to create a high performance team in the classroom, the students and the teachers have to be accountable to one another. There must be trust in the environment of the class. So. the students and teacher will feel free to ask questions about each other's performance and would be able to give honest replies. Student evaluation of teachers is an assessment by the students of the instructions provided by the teachers in the institutions (Aigner & Thum, 1986; Weimer, 1991; and Hornstein, 2017).

Peer group evaluation of teachers means evaluation of the performance, or the quality of work of a member of a peer group by the members drawn from that group. Peer review is usually identified with observations by the peers or colleagues about the teaching of an instructor (Basow, 1995; and Fernandez & Yu, 2007).

Let us understand this thing with an example, suppose a teacher who is having the necessary ability, knowledge or skill to do one's job successfully, starts teaching in a school. The teacher teaches according to the current fashion in the society, doing best in one's way, talking about the current affairs and all the new technologies all over the world and trying to relate all of them with the subject are teaching whenever possible. But still does not get the desired results of students in the assessments. Now teacher really needs to think that what went wrong? What can be the problem?

One needs help to understand the reason behind the situation and here the most helping if anyone can be, so they are the students. The feedback given by the

students is of great help in this context. So many studies have been done in this field. According to C.M. Clark & P.L. Peterson (1986) and N.K. Patel (2017), although administers have considerable responsibility for assessment of teachers, competence, yet effective behavior, could be made only through students' feedback on their teaching (Clark & Peterson, 1986; and Patel, 2017).

E.S. Balachandran (1981) and D. Nitza & S. Dan (2006) confirm also an improvement in all faculty members, who receive feedback from their students (Balachandran, 1981; and Nitza & Dan, 2006). But in a study done by H.T. Tagomori (1993), evaluation instruments used by students to assess teacher's behavior were declared as unreliable in their existing form (Tagomori, 1993); also T.V. Savage & M.K. McCord (1986) revealed in their study that students' evaluation data do not significantly alter the assessment of teaching competency (Savage & McCord, 1986).

The researchers have selected student evaluation of teachers. Firstly in the known history, student evaluation of teaching was used at University of Washington in USA (United States of America) the 1920's, initiated by E.R. Guthrie (1954). Feedback and evaluation given by the students were considered as most important resources for the development of student learning, teaching effectiveness, and professional competency (Marsh & Roche, 1997; and Patel & Joshi, 2015). As T.J. Gallagher (2000) states, in the absence of feedback, instructors would have to rely exclusively on their own inferences about the quality of their teaching (Gallagher, 2000:141).

Hence, the most important benefit of student evaluation is the feedback which is provided directly to the educators, so that they can refine their courses and teaching practices to provide the students with better learning experiences. Student evaluation can show teachers what they are doing right and suggest areas for improvement. It might help the teachers for making significant changes. Sometimes, teachers do not know what student exactly expect from them; in this sense, students evaluation of teacher can be a great help (Aleamoni, 1976; Abrami,

D'Apollonia & Rosenfield, 1997; D'Apollonia & Abrami, 1997; and Hobson & Talbot, 2001).

As an effective communication behavior, self-disclosure may be one method for teachers to use in their classrooms to promote engagement. The more teachers self-disclose, the more out-of-class communication, they have with their students and the greater their students' interest (Basow & Silberg, 1987; Cayanus & Martin, 2003; and Cayanus, Martin & Weber, 2003).

J.L. Cayanus & M.M. Martin (2004) found a positive relation between amount of teacher self-disclosure and the motives of relational, excuse-making, and sycophancy. Although the work of J.L. Cayanus & M.M. Martin (2004) provides some insight into how teacher selfdisclosure could influence students' motives. only the amount of self-disclosure was included in their study (Cayanus & Martin, 2004). When teachers are relevant in their self-disclosures, students seemingly are more motivated to play an active role in the learning process than when teachers' self-disclosures are not relevant (Wilson, 1986; Theall & Franklin eds., 1991; and Dershowitz, 1992).

It is also said that teachers' communication with students is an essential part of the educational process (Richmond, 1990; and Punyanunt-Carter, 2006), which motivates and supports a student during the period of his/her studying. Moreover, students' motivation to learn is accepted as an essential part of educational process (Theall & Franklin eds., 1990; and Glynn, Aultman & Owens, 2005).

These findings draw an importance of teacher's communication with students to their learning. Generally as one of the most important factors concerned with students motivation to learn is distinguished teacher's self-disclosure (Cayanus & Martin, 2008; and Cayanus, Martin & Goodboy, 2009). Teacher self-disclosure has negative and positive impact to students (Goldstein & Benassi, 1994; Cayanus, 2004; and Eckhart, 2011).

Self-disclosure helps teacher to build positive relation with students and helps to create informal atmosphere in the classroom. Advantage of teacher self-disclosure is that it motivates students to participate in the

classroom activities (Cohen, 1981; Goldstein & Benassi, 1994; and Cayanus, 2004).

Mostly teachers in the classroom spend time by communicating with students about the subject's content, discussing with students about the lesson, or sharing their own lives experience (Abrami, D'Apollonia & Cohen, 1990; Centra, 1993; and Mazer, Murphy & Simonds, 2007). In the other words, it is possible to say that generally teachers use self-disclosure in the educational process. It is thought that it creates the reciprocity between teacher and students, where students feel accepted, self-confident, and free to discuss (Abrami, Marilyn & Raiszadeh, 2001; and Allen & Court, 2009).

On the basis of all the above stated statements, it is very much clear that teachers' self-disclosure has impact on students' learning and classroom environment. After reviewing all the researches, researchers found contradiction between the results of different findings; hence, found that more work is needed in this field.

The objectives and hypotheses are: firstly, to study the effect of student evaluation of teacher based feedback on self-disclosure of secondary school teachers, when pre – self-disclosure of teachers was taken as covariate. H_{01} : "*There is no significant effect of student evaluation of teacher based feedback on self-disclosure of secondary school teachers, when pre – self-disclosure of teachers was taken as covariate*".

Secondly, to study the effect of student evaluation of teacher based feedback on self-disclosure of secondary school teachers, when intelligence of teachers was taken as covariate. H_{02} : "*There is no significant effect of student evaluation of teacher based feedback on self-disclosure of secondary school teachers, when intelligence of teachers was taken as covariate*".

Thirdly, to study the effect of student evaluation of teacher based feedback on selfdisclosure of secondary school teachers, when pre-teaching effectiveness of teachers was taken as covariate. H_{03} : "*There is no significant effect of student evaluation of teacher based feedback on self-disclosure of secondary school teachers, when pre-teaching effectiveness of teachers was taken as covariate*".

Fourthly, to study the effect of student

evaluation of teacher based feedback, intelligence, and its interaction on selfdisclosure of secondary school teachers, when pre – self-disclosure of teachers was taken as covariate. H_{04} : "*There is no significant effect* of student evaluation of teacher based feedback, intelligence, and their interaction on self-disclosure of secondary school teachers, when pre – selfdisclosure of teachers was taken as covariate".

METHODS

The sample of the present study comprised of 70 secondary school teachers and 220 students studying in secondary classes. These sampled teachers were selected from 4 secondary schools of Indore city, India. Purposive sampling technique was used for sampling. The present study was experimental in nature (Campbell & Stanley, 1963).

The non-equivalent control group design given by Donald T. Campbell & Julian C. Stanley (1963) was used for the experiment (Campbell & Stanley, 1963). Its layout is presented as following:

There were two groups in this study, one out of which is experimental and another one is control group. Feedback based on student evaluation of teachers is independent variable; and self-disclosure of teachers is dependent variable. Raven's Standard Progressive Matrices Test by Raven was used for intelligence (cited in Kunda, McGreggor & Goel, 2009). It is a non-verbal cultural fair test, free from any effect of languages (Larson, 1967; Mensh & Mensh, 1991; and Johnson, 1997).

The tool self-disclosure inventory, developed by Virendra Sinha (1982), is used for self-disclosure (*cf* Sinha, 1982; and Gupta & Devi, 2017). The tool used for measuring teaching effectiveness was developed by P. Jain (2004); Linda Tyler (2010); and Shoma Mukherji & Neera Jain (2015).

The data collection procedure was completed in three phases, namely: pretreatment phase, during treatment phase, and post treatment phase (Brancato *et al.*, 2015). In the first phase in which after receiving permission of the school administration or school management, the researchers took introduction of the faculties and gave them information about the details of the advantages of proposed work in improvement of teaching and betterment of achievements; in this way, the researchers tried to convince them in satisfactory manner.

After this, the researchers were introduced with the classes in which the faculties teach. The researchers tried to arouse interest among the students for active participation in proposed work. The researchers ensured the faculty members and the students about confidentiality of results and data which will be gathered in phase II.

After convincing successfully to the students and teachers, the researchers administered the tool related to student evaluation of teachers to randomly selected four students of each class taught by the selected teachers. The students were given 30 minutes to complete; after 30 minutes, the researchers collected the student evaluation of teachers perform; after that the selected teachers were given the self-disclosure tool to complete in 30 minutes; and then the self-disclosure test was collected by the researchers, then the researcher discussed with the teacher in friendly environment to refresh them.

After that all the selected teachers were given intelligence test and instructed to complete it in 45 minutes, then all the test papers were collected by researchers. This procedure was repeated in all four schools. This procedure took 10 days.

In the second phase, the researchers integrated and analyzed the collected data with respect to each teacher and prepared a list of desired and undesired behavior of classroom teaching as the respondents responded. On the basis of this prepared list, the researchers advised each teacher separately (in alone) about their classroom performances. In this process of providing feedback, the researchers mixed the positive and negative behavior of the teacher.

The main aim of the research was to help the teacher without hurting them. In this overall procedure, the researchers tried to maintain the dignity of teachers. In this phase, the researchers administered the student evaluation of teachers' tool two times again each after 20 days of the previous one, and given feedback to the teacher two times again. The repetition strengthens the feedback procedure. So that the actual effect of feedback was evaluated.

This overall procedure took 70 days. This phase was only for experimental group. In the last phase, the procedure done in the phase I was repeated again for the experimental group only. The intelligence test was not administered in this phase. This phase took 10 days. ANCOVA, or Analysis of Covariance, was used for data analysis (Costin, William & Menges, 1973; Blackwell, 1983; and Leech, Barrett & Morgan, 2005).¹

RESULTS AND INTERPRETATIONS

To study the effect of student evaluation of teacher based feedback on self-disclosure of secondary school teachers, when pre – selfdisclosure was taken as covariate. There were two level of treatment, namely: feedback and no feedback. First level was taken as experimental group, and second level was taken as control group. In experimental group, 40 teachers were taken; and in control group, 38 teachers were taken. The data was analyzed with the help of ANCOVA (Analysis of Covariance). The results are given in table 1.

From table 1, it can be seen that the adjusted F – value for student evaluation of teacher based feedback is 73.34, which is significant with Df (1 and 75) at 0.05 level of significance. This shows that the adjusted mean score of self-disclosure of teachers of experimental group not significantly differ from control group, when pre – self-disclosure was taken as covariate.

Therefore, the null hypothesis that: "*There is no significant effect of student evaluation of teacher based feedback on self-disclosure of secondary school teachers, when pre – self-disclosure was taken as covariate*" is rejected at 0.05 level of significance. Then, see table 2.

From table 2, it can be seen that adjusted mean score of self-disclosure of experimental group, i.e. 566.09, was found to

¹See also, for example, "Understanding Analysis of Covariance (ANCOVA)". Available online at: <u>http://oak.ucc.nau.edu/rh232/courses/eps625/handouts/ancova/</u><u>understanding%20ancova.pdf</u> [accessed in New Delhi, India: November 10, 2017].

 Table 1:

 Summary of ANCOVA for Self-Disclosure by Taking Pre – Self-Disclosure was Taken as Covariate

Source	Df	S.S _{y.x}	MSS _{y.x}	F _{y.x}	Significance
Treatment	1	557.6	557.6	-	-
Error	75	570.19	7.6	73.34	0.05*
Total	76	1127.79	-	-	-

* Significant at 0.05 level of significance.

 Table 2:

 Adjusted Mean Score of Self-Disclosure of Experimental and Control Group

Group	Adjusted Mean
Experimental	566.09
Control	560.73

Table 3:
Summary of ANCOVA for Self-Disclosure by Taking Intelligence as Covariate

Source	Df	S.S _{y.x}	MSS _{y.x}	$\mathbf{F}_{y.x}$	Significance
Treatment	1	1301.43	1301.43	-	-
Error	75	42803.34	570.71	2.28	NS
Total	76	44104.77	-	-	-

NS = Not Significant at 0.05 level of significance.

be significantly higher than the adjusted mean score of control group, i.e. 560.73. Hence, it can be concluded that there is significant effect of student evaluation of teacher based feedback on self-disclosure of secondary school teachers, when pre – self-disclosure was taken as covariate.

To study the effect of student evaluation of teacher based feedback on self-disclosure of secondary school teachers, when intelligence was taken as covariate. There were two level of treatment, namely: feedback and no feedback. First level was taken as experimental group; and second level was taken as control group. In experimental group, 40 teachers were taken; and in control group, 38 teachers were taken. The data was analyzed with the help of ANCOVA (Analysis of Covariance). The results are given in table 3.

From table 3, it can be seen that the adjusted F – value for student evaluation of teacher based feedback is 2.28, which is not significant with Df (1 and 75) at 0.05 level of significance. This shows that the adjusted mean score of self-disclosure of teachers of experimental group not significantly differ from control group, when intelligence was

taken as covariate.

Therefore, the null hypothesis that: "*There is no significant effect of student evaluation of teacher based feedback on self-disclosure of secondary school teachers, when intelligence was taken as covariate*" is not rejected at 0.05 level of significance. Hence, it can be concluded that self-disclosure of secondary school teachers is independent of the feedback based on student evaluation of teacher, when intelligence was taken as covariate.

To study the effect of student evaluation of teacher based feedback on self-disclosure of secondary school teachers, when preteaching effectiveness was taken as covariate. There were two level of treatment, namely: feedback and no feedback. First level was taken as experimental group; and second level was taken as control group. In experimental group, 40 teachers were taken; and in control group, 38 teachers were taken. The data was analyzed with the help of ANCOVA (Analysis of Covariance). The results are given in table 4.

From table 4, it can be seen that the adjusted F – value for student evaluation of teacher based feedback is 0.31, which is not

Table 4:
Summary of ANCOVA for Self-Disclosure by Taking Pre-Teaching Effectiveness as Covariate

Source	Df	S.S _{y.x}	MSS _{y.x}	F _{y.x}	Significance
Treatment	1	175.76	175.76	-	-
Error	75	41877.22	558.36	0.32	NS
Total	76	-	-	-	-

NS = *Not Significant at 0.05 level of significance.*

Table 5: Summary of 2x2 Factorial Design ANCOVA for Self-Disclosure by Considering Pre - Self-Disclosure as Covariate

Source	Df	S.S _{y.x}	MSS _{y.x}	$\mathbf{F}_{y.x}$	Significance
Feedback	1	0.92	0.92	0.06	NS
Intelligence	1	398.67	398.67	24.68	0.05*
Feedback* Intelligence	1	29.92	29.92	1.85	NS
Error	73	-	-	-	-
Total	76	-	-	-	-

* Significant at 0.05 level of significance.

NS = *Not Significant at 0.05 level of significance.*

Table 6: Adjusted Mean Score of Self-Disclosure of Above Average Intelligence Group and Below Average Intelligence Group

Group	Adjusted Mean
Above intelligence average group	565.87
Below intelligence average group	561.34

significant with Df (1 and 75) at 0.05 level of significance. This shows that the adjusted mean score of self-disclosure of teachers of experimental group not significantly differ from control group, when pre-teaching effectiveness was taken as covariate.

Therefore, the null hypothesis that: "There is no significant effect of student evaluation of teacher based feedback on self-disclosure of secondary school teachers, when pre-teaching effectiveness was taken as covariate" is not rejected at 0.05 level of significance. Hence, it can be concluded that self-disclosure of secondary school teachers is independent of the feedback based on student evaluation of teacher, when pre-teaching effectiveness was taken as covariate.

To study the effect of student evaluation of teacher based feedback, intelligence, and its interaction on self-disclosure of secondary school teachers by taking pre – self-disclosure as covariate. There were two level of treatment, namely: feedback and no feedback. First

level was taken as experimental group; and second level was taken as control group. In experimental group, 40 teachers were taken; and in control group, 38 teachers were taken.

On the basis of intelligence the subjects were divided into two levels, namely: above intelligence average group and below intelligence average group. There were 41 teachers in above intelligence average group; and 37 were in below intelligence average group. The data was analyzed with the help of 2x2 Factorial Design ANCOVA (Analysis of Covariance). The results are given in table 5.

Effect of feedback based on student evaluation of teacher on self-disclosure of secondary school teachers, when pre - selfdisclosure was taken as covariate. From table 5, it can be seen that the adjusted F – value for student evaluation of teacher based feedback is 0.06, which is not significant with Df (1 and 75) at 0.05 level of significance. This shows that the adjusted mean score of self-disclosure of teachers of experimental group not

significantly differ from control group, when pre – self-disclosure was taken as covariate.

Therefore, the null hypothesis that: "*There* is no significant effect of feedback based on student evaluation of teacher on self-disclosure of secondary school teachers, when pre – self-disclosure was taken as covariate" is not rejected at 0.05 level of significance. Hence, it can be concluded that self-disclosure of secondary school teachers is independent of the feedback based on student evaluation of teacher, when pre – selfdisclosure was taken as covariate.

Effect of intelligence on self-disclosure of secondary school teachers when pre - selfdisclosure was taken as covariate. From table 5, it can be seen that the adjusted F – value for intelligence is 24.68, which is significant with Df (1 and 75) at 0.05 level of significance. This shows that the adjusted mean score of intelligence of teachers of experimental group significantly differ from control group, when pre - self-disclosure was taken as covariate.

Therefore, the null hypothesis that: "*There is no significant effect of intelligence on selfdisclosure of secondary school teachers, when pre – self-disclosure was taken as covariate*" is rejected at 0.05 level of significance. See, then, table 6.

Further, from table 6, it can be seen that the adjusted mean score of above average intelligence group, i.e. 565.87, was found to be significantly higher than the adjusted mean score of below average intelligence group, i.e. 561.34. Hence, it can be concluded that feedback provided to teachers of above average intelligence group was significantly effective.

Effect of interaction between students' evaluation of teacher based feedback and intelligence on self-disclosure of secondary school teachers, when pre – self-disclosure was taken as covariate. From table 5, it can be seen that the adjusted F – value for the interaction between feedback and intelligence is 1.85, which is not significant with Df (1 and 75) at 0.05 level of significance. This shows that the adjusted mean score of self-disclosure of teachers of experimental group not significantly differ from control group, when pre – self-disclosure was taken as covariate.

Therefore, the null hypothesis that: "*There is no significant effect of interaction between*

student evaluation of teacher based feedback and intelligence on self-disclosure of secondary school teachers, when pre – self-disclosure was taken as covariate" is not rejected at 0.05 level of significance. Hence, it can be concluded that self-disclosure of secondary school teachers is independent of interaction between feedback and intelligence, when pre – self-disclosure was taken as covariate.

CONCLUSION

The researchers found following conclusions that there is significant effect of student evaluation of teacher based feedback on self-disclosure of secondary school teachers, when pre – self-disclosure was taken as covariate. Self-disclosure of secondary school teachers is independent of the feedback based on student evaluation of teacher, when intelligence was taken as covariate.

Self-disclosure of secondary school teachers is independent of the feedback based on student evaluation of teacher, when preteaching effectiveness was taken as covariate. Self-disclosure of secondary school teachers is independent of interaction between feedback and intelligence, when pre – self-disclosure was taken as covariate.²

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²*Statement:* We, hereby, ensure that this article is not product of plagiarism, not yet to be submitted and published by other journal, and if our paper has been received, we will not withdrawal this paper from the *EDUCARE* journal.

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Teaching and Learning Process at the Secondary School in India (Source: <u>https://scroll.in</u>, 10/11/2017)

Self-disclosure of secondary school teachers is independent of the feedback based on student evaluation of teacher, when pre-teaching effectiveness was taken as covariate. Self-disclosure of secondary school teachers is independent of interaction between feedback and intelligence, when pre - self-disclosure was taken as covariate.