

Effect of Teachers' Competencies on Scholars' Academic Achievement and Satisfaction

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Abstract

The current research paper is an attempt to investigate the effect of teachers' competencies on academic achievement and satisfaction of MPhil students. Effect is a change which is a result or consequence of an action or other cause. Obtaining students' satisfaction and academic achievement as a result of teachers' competencies is one of the prime objectives of higher educational institutions. Institution failing to get the desired competencies among the learners effect their reputation and students' intake in future. The academic performance of low performer scholars resulted in quitting the degree. This study employed quantitative approach to test the hypotheses. Forty MPhil scholars from GC University Faisalabad were the sample of the study using census survey. Self-developed research instrument, Teachers' Competencies and Scholars' Satisfaction Scale (TCSSS) with Alpha value .954 were used for survey to collect data. The achievement score was scholars' final test score in the semester. The teachers' competence indicators were teacher's content knowledge, presentation skills, students' teacher interaction and modes of assessment. T-test, Pearson r, and ANCOVA were used for data analysis. The results showed that teacher's knowledge of subject contributed to scholars' satisfaction and achievement. Female scholars rate the teachers more competent than their male fellows. It was recommended that the scholars' performance may be improved by using additional class tests and worksheets.

Keywords: Teachers' competence, scholars' performance, academic achievement

Introduction

The two magnitudes of learning and teaching in academia depend on teachers' abilities. The competent teacher produces anticipated results in study. The decline in the academic performance, students' attitude and values, and the poor quality result is the reflection of lack of lecturer's competencies in teaching quality (Long, Ibrahim, & Kowang, 2014). Competence is the knowledge and skills that enable a teacher to be successful. To expedite students' learning, teachers show expertise in a wide-ranging of competencies in a complex environment (Jackson, 1990). Every job demands the combination of expert judgment and the proficient use of evidence-based competencies in teaching.

Review of Related Literature

Competency is the characteristic of instruction, grading, assessment, academic reporting based on students' demonstration that they have learned about skills the knowledge their education. Numerous synonyms comprise *mastery-based*, *proficiency based*, *performance-based*, *outcome-based*, *standards-based* education and instruction exhibited by teachers. On the other hand, incompetence of teacher in classroom communication with learners may responsible for their poor performance (Theall & Franklin, 2001).

Researchers have confirmed that in spite of all factors under the auspices of an institute, teachers are the most influential on students' success (Babu & Mendro, 2003; Sanders & Rivers, 1996). The effective teachers from unproductive teachers are easily recognized. It is the time to build a profile of classic classroom teaching resulting from effective research (Wenglinsky, 2002; Hattie, 2009). Suarman (2015) teachers' competence has positive effect on classroom environment which interns improve the students' achievements at university level.

The indicators like teachers' performance, learning satisfaction of students, motivation and achievement are prime predictors of students' success (Asfani, Suswanto & Wibawa, 2017; Rowe, 2003). The encouragement and guidance of teachers also affect students' performance (Klem & Connel, 2004). Different problems students face to improve their learning attitude positive study habits (Hussain, 2006).

The teaching experiences of teachers' have impact on students' accomplishment (Rivkin, Hanushek, & Kain, 2005) According to Boyd, Grossman, Lankford, Loeb, & Wyckoff(2006), more experienced teachers shoe positive performance. Experienced teachers have better impact on students' performance as compared with low experienced teachers during their teaching profession (Rivkin, et al., 2005).The competence of teachers is seen as:

1. Teaching Attitude
2. Knowledge and skills
3. Competency to judgment students
4. Personal characteristics (Oliver, 1990).

The content knowledge of teachers may be improved students' attainment (Baumert, et al., 2010; Hill, Rowan, & Ball, 2005). The factors related to environment are influential. Institutional facilities and infrastructure of the institute has a positive effect on teachers' effectiveness of teaching and learning of students (Earthman, 2002). Effective learning and teaching strategies lead to the perfection among students' achievement (Uline & Tschannen Moran, 2008).The support from the parents becomes positive factor that helps students' performance (Deslandes, Royer, Turcotte, & Bertrand, 1997). The students' motivation is positively correlated with parents (Gonzales-DeHass, Willem, & Holbein, (2005). When parents support positively to their kids, their achievement score enhances. Learning activities are practiced in classroom (Doppelt & Schunm 2008).A positive learning environment will support students' learning activities (Lizzio, Wilson, & Simons, 2002). The interaction with students showed a strong significant predictor that influence performance of students' satisfaction. It is the duty of management to create such a learning environment in which interactions between students and lecturers. According to Long, Ibrahim, &Kowang, (2014) and Volery, et al. (2000), students' interactions may lead to success. Brophy (2002) revealed that lecturers may-refine teaching. According to Fresen (2007) and Northrup (2001), the collaboration between students and teachers is an essential indicator of students' fulfillment (Picciano, 2002; Young & Nordgard, 2006).

The teaching competencies directly linked to students' satisfaction (Matzler & Woessmann, 2010). The study findings revealed that the perceptions of students with respect to teachers' competence were in a good factor (Dali, Daud, & Fauzee, 2017). Good (1994), the lecture delivered in an effective way is the guarantee to achieve the learning outcomes for scholars to have better satisfaction. There is a positive correlation on students' interaction (Gray, 2010). Chedzoy and Burden (2007) the situations where in which teachers are creative and supported improve students' learning positively.

Learning achievements is the key to students' satisfaction (Weinert, 2001).The learning outcomes provide satisfaction to students and in turn their performance increases (Chiu, Hsu, Sun, Lin, & Sun, 2005; Levy, 2007).Theprecision of demonstration, Shea, Pickett, and Pelz (2003) and Swan

(2001) explored that teachers' facilitation had high correlation with students' level of satisfaction. Swan, et al. (2001) explained that students preferred steady flow of lecture notes. In view point of Yang and Cornelius (2004), the poorly designed lecture notes may frustrate students. The lack of encouraging feedback by the teacher is the result of failure (Zeng & Perris, 2004). The frustration among students create high degree of poor learning and dissatisfaction (Shin, et al., 2003). The relevant competence of teacher is needed to improve the learning of students (Northrup, 2002). According to Long, Ibrahim, and Kowang (2014), teachers' competencies are under

- Competencies of Teachers'
- Content knowledge
- Clear presentation
- Students' interaction
- Creativeness
- Students' assessment

Research Objectives

Following research objectives were designed for the study:

1. To identify the teachers' competency indicators at university level.
2. To find out the difference between male and female students' perceptions about teachers' competence.
3. To investigate the correlation effect of teachers' competencies on scholars' academic achievement and satisfaction.

Hypotheses

The research hypotheses were as under:

Ho 1: There is no significant difference in the opinions of males and females students about the different indicators of teachers' competence.

Ho 2: There is no significant relationship among teachers' competence, students' academic satisfaction and achievement score at university level.

Ho 3. No difference in teachers' competence on academic satisfaction while controlling of students' achievement?

Methodology

This study employed quantitative approach to test the hypotheses. Survey method was used.

Sample and Population

Forty MPhil scholars enrolled in education discipline from GC University Faisalabad were the study sample. Double stage sampling techniques was used. At first stage, department was selected randomly. At second stage, as the students were small in number, so census sampling was selected. A census is most appropriate techniques of a study of every subject in a population. It is known as a complete enumeration, which means a complete count.

Instrument of the Study

Self-developed research instrument, Teachers' Competencies and Scholars' Satisfaction Scale (TCSSS) was used keeping in view the previous research scales by different researchers on the same topic (e. g., Long, Ibrahim, & Kowang, 2014; Norazman, Nor'aindan NurFazliana, 2012; Ramsden, 1991). The instrument had 30 items with two variables, teachers' competency and students' academic satisfaction. The teachers' competence indicators were, teacher's content knowledge, presentation skills, students' teacher interaction and modes of assessment. In addition,

achievement score was taken from scholars' semester test result. The achievement score was scholars' final test score in the semester. T-test, Pearson r, and ANCOVA were used for data analysis.

Results

Data were analyzed using mean, SD. t-test, Pearson r and ANCOVA. T-test was applied to explore the difference between the variables. Pearson r was applied to investigate the correlation among the variables. ANCOVA was used for controlling covariate.

Table 1. Factors Necessary for Ensuring Teachers' Competencies at University Level

| | Students' Satisfaction | Content Knowledge | Assessment | Students Interaction | Presentation Skills | Overall Competence |
|---------|------------------------|-------------------|------------|----------------------|---------------------|--------------------|
| Mean | 3.780 | 3.825 | 3.828 | 3.896 | 3.570 | 3.780 |
| Std. D. | .927 | .820 | .760 | .798 | .490 | .661 |

The indicators of teachers' competencies were presented using mean and standard deviation. It revealed that the interaction of teacher with the students is the top indicator in teachers' competencies. The assessment done by the teacher was second highest indicator of teachers' competence. The knowledge of content was placed at third number and students' satisfaction was at fourth number indicator. The last indicator that was necessary for teachers' competence was presentation skills of the teachers.

Ho 1. There is no significant difference in the opinions of males and females students about the different indicators of teachers' competence.

Table 2. Comparison between Male and Female Scholars about Teachers' Competence Indicators

| Indicators | Gender | N | Mean | Std. Deviation | t |
|------------------------|---------|----|--------|----------------|----------|
| Students' Satisfaction | Males | 21 | 3.1852 | .79063 | -5.772** |
| | Females | 19 | 4.4386 | .54618 | |
| Content Knowledge | Males | 21 | 3.2560 | .75361 | -7.071** |
| | Females | 19 | 4.4539 | .17781 | |
| Assessment | Males | 21 | 3.3929 | .71292 | -4.828** |
| | Females | 19 | 4.3092 | .47392 | |
| Student Interaction | Males | 21 | 3.3810 | .78609 | -6.119** |
| | Females | 19 | 4.4671 | .19914 | |
| Presentation Skills | Males | 21 | 3.3333 | .51370 | -3.804** |
| | Females | 19 | 3.8333 | .29918 | |

**P<0.001

Table 2 demonstrates the t-test results between male and female research scholars' opinions about the teachers' competence indicators. It revealed that there are significant differences in the perceptions of male and female research scholars regarding teachers' competence. In all indicators, mean achievement score had statistically significant differences with better perceptions about teachers' competence. Female scholars rate the teachers more competent than their male fellows.

Ho 2. There is no significant relationship among teachers' competence, students' academic satisfaction and achievement score at university level.

Table 3. Relationship among Teachers' Competence, Students' Academic Satisfaction and Achievement Score

| Variables | Test | Overall Com- petence | Student Satis- faction | Achievement |
|-----------------------------|-----------|-------------------------|---------------------------|-------------|
| Overall Compe- tence | Pearson r | 1 | .882** | .663** |
| Students' Satisfac- tion | Pearson r | .882** | 1 | .472** |
| CGPA | Pearson r | .663** | .472** | 1 |

**0.01 level (2-tailed).

Pearson r correlation was applied to explore the relationship among teachers' competence, students' academic satisfaction and achievement score. It revealed a statistically significant and strong relationship of among three variables ($r = .882$, $r = .663$ and $r = .472$, $p > 0.01$ & 0.05). So the null hypothesis about relationship among teachers' competence, students' academic satisfaction and achievement score at university level was rejected. It was concluded that teachers' competence is the source of academic satisfaction and achievement score of students at university level.

Table 4. Levene's Test for Equality

| F | df1 | df2 | Sig. |
|-------|-----|-----|------|
| 1.724 | 2 | 37 | .192 |

Dependent Variable: Students' Satisfaction

The Levene's Test showed that no violation of the assumptions is identified because our Sig. value is $.192 > 0.05$.

Ho 3. No difference in teachers' competence on academic satisfaction while controlling of students' achievement?

Table 5. ANCOVA Tests of Differences between-Subjects Effects

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---------------------|----------------------------|----|----------------|--------|------|------------------------|
| Corrected Model | 28.523 ^a | 3 | 9.508 | 68.176 | .000 | .850 |
| Intercept | 5.087 | 1 | 5.087 | 36.478 | .000 | .503 |
| CGPA | .259 | 1 | .259 | 1.857 | .181 | .049 |
| Competence Level | 21.045 | 2 | 10.522 | 75.453 | .000 | .807 |
| Error | 5.020 | 36 | .139 | | | |
| Total | 605.247 | 40 | | | | |
| Corrected Total | 33.543 | 39 | | | | |

a. R Squared = .850 (Adjusted R Squared = .838)

ANCOVA was conducted to compare the level of competence designed to reduce participants' achievement. The teachers' competence as independent and dependent variable was students' academic satisfaction. The CGPA used as covariate in the analysis. Initial analysis was made to check violation free assumptions of normality. A significant difference was found in the two intervention groups, $F(1, 36) = .75, p = .000$, partial eta squared = 80.7.

Table 6. Competency Level of Teachers

| Competence Level | Mean | Std. Error | 95% Confidence Interval | |
|---------------------|--------------------|------------|-------------------------|----------|
| | | | Lower B. | Upper B. |
| High Competence | 4.570 ^a | .088 | 4.392 | 4.748 |
| Moderate Competence | 3.391 ^a | .104 | 2.780 | 3.203 |
| Low Competence | 2.200 ^a | .211 | 1.773 | 2.628 |

The table showed levels of competence. The mean score of high competence was 4.57. The moderate competence had mean 3.39 and mean of 2.20 was considered as low level of competence.

Conclusion

The teachers' competencies were interaction of teacher with the students, assessment, and knowledge of content and presentation skills of the teachers as investigated by (Hussain, 2006; Rivkin, Hanushek, & Kain, 2005).

All indicators of teachers' competencies had statistically significant differences with better perceptions about teachers' competence. Female scholars rate the teachers more competent than their male fellows. The current study shows that teachers' competence is the source of academic satisfaction and achievement score. The previous studies revealed that teachers' performance, learning satisfaction of students, motivation and achievement are prime predictors of students' success (Asfani, Suswanto & Wibawa, 2017; Rowe, 2003). Also Long, Ibrahim, & Kowang, 2014 and Volery, et al. (2000), students' interactions positively related to success. According to Fresen (2007) and Northrup (2001), the interaction between lecturers and students is an essential indicator of students' satisfaction (Matzler & Woessmann, 2010; Picciano, 2002; Young, & Norgard, 2006)

The study findings of revealed that the perceptions of students with respect to teachers' competence is in a good factor (Dali, et al., 2017). Good (1994), the lecture delivered in an effective way is the guarantee to achieve the learning outcomes for scholars to have better satisfaction. There is a positive correlation on students' interaction (Gray, 2010). Chedzoy and Burden (2007) the situations where in which teachers are creative and supported improve students' learning positively.

Learning achievements is the key to students' satisfaction (Weinert, 2001). The learning outcomes provide satisfaction to students and in turn their performance increases (Chiu, et al., 2005; Levy, 2007). After adjusting for pre-intervention scores, a significant difference was found in intervention groups.

Recommendations

Future researchers may correlate the teachers' motivation with their competencies. The conducive learning and teaching environment, outstanding institutional administration may train the quality professors which in turn produce successful scholars. Teachers may improve their weaknesses if they work hard. Further researches may be conducted a wider range of complete picture

about teachers' competence. It is recommended that the scholars' performance may be improved by using additional class tests and quizzes.

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