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Investigating The Effects of Motivational Interviewing Therapy and Gender on Teaching Competence of Secondary School Teachers in Gombe State, Nigeria

Sofeme Reuben Jebson¹
Kamilu Olanrewaju Muraina²

Abstract

Teachers determine what ultimately happens to educational policies, to curriculum guidelines, the use to which teaching-learning materials are put and in fact the fate of a nation's huge investments in education. This study therefore investigated the effects of motivational interviewing therapy and gender on teaching competence of secondary school teachers in Gombe State, Nigeria. Pretest-posttest, control group quasi-experimental design with a 2x2 factorial matrix was used in the study. Multi-stage sampling technique was used in sampling participants from 4 local government areas in the state. The respondents were measured with validated scale of 0.91 reliability coefficient and the data obtained was analyzed using t-test statistical analysis. Two (2) research hypotheses were formulated and tested at 0.05 level of significance. The results showed that there was significant difference in the teaching competence of secondary school teachers exposed to motivational interviewing therapy and those in the control group ($t= 42.38$; $p<0.05$) and there was no significant difference in the teaching competence of secondary school male and female teachers ($t= .095$; $p>0.05$). In view of these findings, the study recommended that educational stakeholders should intensify their effort to organize conferences on the implications of motivational interviewing therapy for effective interventions towards enhancing teaching competence of secondary school teachers.

Key Words: Motivational interviewing therapy, Gender, Teaching competence and secondary school teachers

¹Ph.D, Department of Science Education, Federal University Kashere, Gombe State, Nigeria. Tel: +2348037513696. E-mail Address: sofemejebson@yahoo.com

² Department of Educational Foundations, Federal University Kashere, Gombe State, Nigeria. Tel: +2348034592046. E-mail Address: muraina_kamilu@yahoo.com

Introduction

Education is globally-accepted as the most viable tool for sustainable human development. It is equally an indispensable tool for enhancing economic growth and national development. Education is seen as the cornerstone of every development forming the basis for literacy, skill acquisition, technological advancement as well as the ability to harness the natural resources of the state. It helps to ensure a safer, healthier, more prosperous and environmentally-sound world. It is an indispensable key for personal and social improvement. In recognition of the inestimable value of education, the Nigerian Government has adopted education as an important instrument for effecting national development. Thus, education is viewed as an instrument for building a free and democratic society, a just and egalitarian society, a united strong and self-reliant nation and a great and dynamic economy.

In order to attain these national aspirations, secondary schools are expected to provide quality instructions that will be oriented towards inculcating values of respect for the worth and dignity of individuals; ability to make rational decisions; moral and spiritual values in interpersonal relationship and shared responsibility for the common good of society, among others (National Policy on Education, 2004). The quality of education of any nation, to a very large extent, determines the development status of that particular nation (Amao, Olashinde-Giwa, Muraina, & Muraina, 2012; Oluwatoyin, Muraina & Muraina, 2013). Education can be regarded as the heartbeat of any nation. The issue of quality in the educational system has been receiving a great deal of attention in the society in recent times. Parents as well as the entire society have been clamoring for quality (Nwogbo, 2007).

Considering governments' huge investment in public education, the output in terms of quality of students has been observed to be disproportionate with government expenditure. Consequent upon the observed deterioration in teaching competence, attitude and values of public primary and secondary school students, one wonders if the high failure rates and poor quality of students is not a reflection of the instructional quality in the schools. In other words, the ineffectiveness of teachers in classroom interaction with students could be responsible for the observed poor performance of students and the widely acclaimed falling standard of education in Nigeria. Teaching competence as used in this study is the level at which secondary school teachers put in place necessary knowledge, skills and strategies required for effective teaching in the school. Teaching competence is conceived as an essential determinant of academic performance, yet there is little agreement as to what specific characteristics make a competent teacher. This is an important issue as the economic impact of higher student achievement can be profound. Hanushek (2011) examines the economic value of teaching competence, which is assumed to be a function of the depreciation rate of student learning, the total variation of teaching competence (as measured by student achievement on standardized tests), and the labour market return to one standard deviation of higher achievement. With this, the present study concentrates on investigating the effects of motivational interviewing therapy and gender on teaching competence of secondary school teachers.

Motivational interviewing therapy (MIT) is the treatment given to teachers in order to develop and improve positive eagerness and motivation towards quality teaching service delivery in the school. MIT was developed by Miller and Rollnick in 1991 first as an alternative to traditional treatments for substance abuse in adults. However, over the last 30 years, MIT has become an established treatment for teaching competence and professionalism (Miller & Rollnick, 2012). MIT is an empirically supported intervention that has shown promise in improving a range of behavioural outcomes in a relatively brief amount of time (Lundahl, Kunz, Brownell, Tollefson, & Burke, 2010). MIT is a clinical style of client-professional interaction that enhances teaching competence and student-centered, directive method for enhancing teaching competence (Miller & Rollnick, 2012).

In general, people are more likely to evolve and change in a positive direction when avoiding battles for change (Wormer, 2007). MIT has been shown to influence teaching competence (Popoola, 2015). Research on MIT has shown to be effective in enhancing teaching competence after therapeutic session (Brody, 2009), and MIT seems to be able to work more quickly than other treatments focused on teaching competence (Muraina, Nyorere & Muraina, 2014). Several recent meta-analyses have

examined the efficacy of MIT in treating a range of outcomes in adults. Most of the meta-analyses focused on studies targeting substance abuse, with a smaller number of studies targeting professional competence (Hettinga, Steele, & Miller, 2005). Overall results indicated that MIT yields small to medium effect sizes across all outcome conditions. Outside of substance abuse treatment, MIT has been implemented across a range of health behaviours both alone or in conjunction with other treatments to increase professional competence in areas such as adherence to medication and medical regimen (Van Dorsten, 2007).

Gender as moderating variable in the study refers to differences of students in term of being male or female. Gender is a major factor that influences subject interest of students. It is important to note that although males and females demonstrated differences, neither group was found different in teaching competence than the other (Agokei, 2011). In the most recent research to determine men's and woman's stereotypes of teachers, despite the increase of women teachers from 21% in 2006 to 46% in 2011 (NPE, 2013). Oderinde and Muraina (2014) found that most men and women still described a good teacher as possessing predominantly feminine characteristics, although the preference for feminine characteristics decreased in the scores for two of the subgroups. Possibly the change could be a result of the increased number of women in teaching profession, or the idea that being a good teacher has more to do with good communication, coaching and individual skills that are in most cases, stereotypically feminine characteristics.

Tukur and Abimbola (2013) found in a meta-analytic study of gender and teaching competence that although the existence of gender-stereotypes differed in a variety of settings, roles and measures, men were more autocratic or directive than women, and women were more democratic or participative than men. This leads to the female teachers being effective in their teaching competence than their male counterparts. Other studies that have shown no significant difference between male and female teaching competence (Alutu, 2005; Abagi & Odipo, 2007). Chau (1996) arrived at similar insignificant findings until they compared the male and female teachers and found that female were slightly more competent than male in teaching competence but the differences not statistically significant. Studies suggesting that gender does affect teaching competence are available, and data can be found to suggest that either men are more competent (Abagi & Odipo, 2007) or that women are generally more competent (Westera, 2001; Cheng & Tsui, 1996). The inconsistencies, according to Cheng and Tsui (1996), are closely linked to differences among expectations, respect, promotional prospects, salary, social interactions, and coping strategies of males and females and the jobs they often hold.

Despite the effort of scholars and researchers in finding lasting solution to the problems of low teaching competence among secondary school teachers in the school system. Little studies have concentrated on the effects of motivational interviewing and gender on teaching competence of secondary school teachers. In order to fill the gaps in the previous study and add more to the existing literatures, the present study intends to investigate the effects of motivational interviewing therapy and gender on teaching competence of secondary school teachers in Gombe State, Nigeria.

Statement of the Problem

The standard of education in Nigeria has fallen to a considerably sad state; the performance of candidates in public examinations in Nigeria has been consistently abysmal. Poor performance of secondary school students in public examinations is indication that many things have gone wrong in the educational sector. The success of the school system in achieving its goals and objectives depends on the efficiency and effectiveness of its teachers. Teaching competence is typically measured as a ratio of output to input. Teaching competence in the school requires a measure of both efficiency and effectiveness of teachers. Teachers determine what ultimately happens to educational policies, to curriculum guidelines, the use to which teaching-learning materials are put and in fact the fate of a nation's huge investments in education. What teachers do, or do not do, are able or not able to do, are willing or not willing to do, what they do properly or do poorly determine, to a great extent, the effective curriculum (what children actually learn). They play a significant role in the determination of the quality of education.

The National Policy on Education (2013) succinctly states that no education system can rise above the quality of its teachers, thus implying the important role played by teachers in facilitating teaching and

learning and in determining the quality of education service delivery. As such, the present study concentrates on investigating the effects of motivational interviewing therapy and gender on teaching competence of secondary school teachers in Gombe State, Nigeria.

Purpose of the Study

The main purpose of this study is to investigate into the effects of motivational interviewing therapy and gender on teaching competence of secondary school teachers in Gombe State, Nigeria. Specifically other purposes include to;

- i. find out the significance difference in the teaching competence of secondary school teachers exposed to motivational interviewing therapy and those in the control group
- ii. examine the significance difference in the teaching competence of secondary school male and female teachers

Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance.

1. There is no significance difference in the teaching competence of secondary school teachers exposed to motivational interviewing therapy and those in the control group
2. There is no significance difference in the teaching competence of secondary school male and female teachers

Methodology

The study adopted the pretest-posttest, control group quasi-experimental design with a 2X2 factorial matrix. In essence, the row consists of motivational interviewing therapy and the control. The row was crossed with gender varied at two levels (Male and Female). The population for the study comprised 2,671 public secondary school teachers in 11 Local Government Areas (LGAs) of Gombe State, Nigeria (TESCOM, 2018). Multi-stage sampling technique was used for the study. The first stage involved the use of stratified random sampling technique by dividing the state into senatorial districts where only 2 districts were randomly selected. The second stage witnessed the randomly selection of 2 LGAs from each senatorial district. Also, the third stage involved the selection of 5 public secondary schools from each sampled LGAs. Lastly, 10 secondary school teachers were selected in each sampled public secondary school through balloting. On the whole, 200 teachers constituted the sample for the study. However, the whole population was grouped into two, one group formed motivational interviewing therapy class and the remaining one served as control group.

Teaching Competence Scale: Teaching competence rating scale (TCRS) developed by Linden, Stone and Shertzer (2005) was used as a measure of teaching competence of participants based on pre-instructional, instructional and post instructional activities of teaching. In its' original form, it contained 30 items of which 25 most relevant items were used in this study. The instrument according to the Author had reliability coefficient of 0.89. However, Cronbach alpha of .91 was obtained in a pilot study which involved an administration of the instrument to a selected sample of twenty (20) public secondary school teachers in Bauchi State, Nigeria which were not part of the participants for the study.

The following criteria were used in selecting the participants for the study:

- i. Participants should be bonafide teachers of secondary schools in Gombe State
- ii. Participants with consent form from the school selected
- iii. Participants willing to participate in the treatment programme.
- iv. Participants should not less than 5 years in teaching profession

The study was carried out in four phases: pre-sessional activities, pre-test, treatment and post-test. At the pre-session, activities include the screening, recruitment and assignment of participants to the two experimental and control group. Advertisement was made to request for participants in selected secondary schools. A preliminary meeting was organised to familiarise with the interested participants

and to solicit their willingness to participate in the study. At the pre-test stage teaching competence scale was administered to the participants. Participants in the experimental group only were exposed to eight sessions of treatment. Each session spanned for an average of 60 minutes (an Hour). Though the control group was not treated, they were exposed to a lecture titled “*History of education in Nigeria*”. The post-test was administered following the conclusion of the programme.

Extraneous variables are those factors or attributes that may affect the outcome of the experimental study aside from the treatment to be employed. The researchers guided against effects of such variables through the following; appropriate randomisation of participants into the two intervention groups and the control group; adherence to inclusion criteria and effective use of the 2x2 factorial matrix design used equally takes care of likely extraneous variables.

T-test statistical analysis was employed to analyse the data in this study. T-test was used so as to establish any significant difference in the teaching competence of participant in treatment group and control as well as gender differences.

Results

Hypothesis One: There is no significant difference in the teaching competence of secondary school teachers exposed to motivational interviewing therapy and those in the control group

Table 1: T-test of teachers exposed to motivational interviewing therapy and those exposed to Conventional Lecture Method

Groups	N	Mean	SD	Std. Error	DF	t	p	Remark
Motivational Interviewing Therapy	95	71.60	17.74	1.82	193	42.38*	0.00	* S
Lecture Method	100	34.66	9.68	.97				

* Significant at $p < 0.05$

The result in table 1 showed that there was significant difference between the teaching competence of secondary school teachers exposed to motivational interviewing therapy and those in the control group ($t = 42.38$; $p < 0.05$). The mean value of the table further revealed that the students in motivational interviewing therapy had higher teaching competence than their counterparts in the control group. This further meant that the treatment had significant influence on teaching competence of secondary school teachers.

Hypothesis Two: There is no significant difference in the teaching competence of secondary school male and female teachers

Table 2: T-test of male and female teachers

Groups	N	Mean	SD	Std. Error	DF	t	p	Remark
Male	76	50.41	23.38	2.68	193	.095	.758	NS
Female	119	53.54	23.06	2.11				

* Significant at $p < 0.05$

Table 2 showed that there was no significant difference between the teaching competence of secondary school male and female teachers ($t = .095$; $p > 0.05$). The mean value of the table further revealed that the female teachers had slightly higher teaching competence than their male counterpart but the difference is not statistically significant. This further meant that gender had no significant influence on teaching competence of secondary school teachers.

Discussion

The result in the Table 1 showed that there was significant difference in the teaching competence of secondary school teachers exposed to motivational interviewing therapy and those in the control group. The mean value of the table further revealed that the students in motivational interviewing

therapy had higher teaching competence than their counterpart in the control group. This further meant that the treatment has significant influence on teaching competence of secondary school teachers. This is in line with the study of Miller & Rollnick, (2012) who found motivational interviewing therapy as established treatment for teaching competence and professionalism. Motivational interviewing therapy is an empirically supported intervention that has shown promise in improving a range of behavioural outcomes in a relatively brief amount of time (Lundahl, Kunz, Brownell, Tollefson, & Burke, 2010). MIT is a clinical style of client-professional interaction that enhances teaching competence and student-centered, directive method for enhancing teaching competence (Miller & Rollnick, 2012). In general, people are more likely to evolve and change in a positive direction when avoiding battles for change (Wormer, 2007). MIT has been shown to influence teaching competence (Popoola, 2015). Research on MIT has shown to be effective in enhancing teaching competence after therapeutic session (Brody, 2009), and MIT seems to be able to work more quickly than other treatments focused on teaching competence (Muraina, Nyorere & Muraina, 2014). Several recent meta-analyses have examined the efficacy of MIT in treating a range of outcomes in adults. Most of the meta-analyses focused on studies targeting substance abuse, with a smaller number of studies targeting professional competence (Hetteema, Steele, & Miller, 2005).

The result of Table 2 revealed that there was no significant difference between the teaching competence of secondary school male and female teachers. The mean value of the table further revealed that the female teachers had slightly higher teaching competence than their male counterpart but the difference is not statistically significant. This further meant that gender had no significant influence on teaching competence of secondary school teachers. This is in contrary with the study of Tukur and Abimbola (2013) who found that gender-stereotypes differed in a variety of settings, roles and measures, men were more autocratic or directive than women, and women were more democratic or participative than men. This leads to the female teachers being effective in their teaching competence than their male counterparts. In agreement with this finding, other studies showed no significant difference between male and female teaching competence (Alutu, 2005; Abagi & Odipo, 2007). Chau (1996) arrived at similar insignificant findings until they compared the male and female teachers and found that female were slightly more competent than male in teaching competence but the differences not statistically significant. Studies suggesting that gender does affect teaching competence are available, and data can be found to suggest that either men are more competent (Abagi & Odipo, 2007) or that women are generally more competent (Westera, 2001; Cheng & Tsui, 1996).

Recommendations

Based on the findings from the study, the following recommendations were made:

1. Educational stakeholders should intensify their effort to organize seminars/conferences on the implications of motivational interviewing therapy as effective interventions towards enhancing teaching competence of secondary school teachers.
2. The researchers and stakeholders in education should not only focus on the secondary school teachers' work absenteeism alone but also teaching competence. This is because teaching competence of secondary school teachers had a lot of influence on academic performance of secondary school students.
3. Teachers and other stakeholders in the school system are to be trained on how to improve teaching competence and motivational interviewing strategy. This will serve as efforts to assist the teachers in overcoming the challenges of low teaching competence of secondary school teachers.
4. The teachers in the school should be encouraged and trained on the effective usage of these interventions (motivational interviewing therapy). This will help in improving the teaching competence of secondary school teachers.

Conclusion

Base on the findings of this study, persistent low teaching competence of Nigerian secondary school teachers need not to continue indefinitely. There is hope that with the use of motivational interviewing therapy, the situation can be changed for the better. The study found that motivational interviewing therapy influence the teaching competence of secondary school teachers. By and large, Mathematics

anxiety and motivational interviewing therapy had a great influence on the Teaching competence of secondary school teachers. By and large, it was also concluded from this study that motivational interviewing therapy enhanced the teaching competence of secondary school teachers.

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