Path Analysis on the Performance of Educators in Mindanao State University-Tawi Tawi College of Technology and Oceanography

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Abstract
Path analysis is a statistical technique used to examine causal relationships between two or more variables. It is also used to understand comparative strengths of direct and indirect relationships among a set of exogenous and endogenous variables which make it unique from other linear equation models. In this study path analysis was used to draw and gather empirical basis on the strengths and weaknesses of educators to allow them either to revise, compare, maintain, or discontinue their teaching performance using the models. It is in this study where the performance of educators of Tawi-Tawi elicited, specifically the teaching habits, attitudes, skills, administrators involvement, appointment status and demographic profile among educators of Mindanao State University in Tawi-Tawi province. Purposive sampling was used in selecting the participants. Causal model techniques were used in this descriptive correlational study. The researcher distributed the questionnaire to each college faculty. Results revealed that the educators were majority old age, married, Islam, permanent and master's holder. Full model regression analysis revealed that teaching skills and administrators' involvement had the most influential effect on the performance of educators. The teaching habits and attitudes have significant relationships on appointment status, educational attainment and teaching skills with teaching habits, monthly income, and the administrators' involvement have also significant relationship to the performance of educator. Therefore, it is concluded that have direct effect and influence to the performance of educators. Hence, the model 7 concluded as the best fits models. Skills increase the educators' performance in college teaching. Educators with positive teaching attitudes have wholesome improved teaching skills; wholesome and improved teaching skills increase the teaching habits, and better teaching habits increase educators' performance.

Keywords: Path analysis, Causal models, Performance, Educators

Introduction

The pursuit of excellence is a concern of Philippine higher education. This is in line with its goal to produce qualified manpower needed to accelerate social and economic development and thus bring about improvement in the quality of life of the people. In its quest for excellence, higher education in the Philippines must therefore be able to harness the potential of a person to the fullest extent, so that one may be able to discharge his/her social, political, economic and spiritual roles in the society to the best of his/her ability. Sutaria, as cited by Nagtalon (2001) mentioned that quality education implies an upgrading of educational standards – a condition that is seminal to the development of excellence in education as well as in life. A performance of higher standards requires an improvement of inputs, processes and outputs of education, the individual learners, as well as the content and relevance of what is taught. Eisner (1995) states that some educators refuse to understand the importance of their role in evaluation. Often times, they feel evaluation as fault-finding mission rather than improving instruction and learning

strategies. According to Gronlund (1995) path analysis and discrepancy evaluation model are processes or cluster of processes that the faculty perform in order to gather data that will enable them to decide whether to continue, change, revise or terminate some teaching roles. In evaluation both educators and educational managers are concerned with determining the relative values of whatever they are performing.

Ben-Peretz (2001) articulated in her article that, "many things worth knowing can be taught". These includes the things that would relate to the growing, diverse and sometimes contradictory expectations of teacher education programs. Egan (2001) as she cited argued that educators should 'give attention for clarifying student evaluation by the teachers; how they evaluate it must not confines on the technical aspects when facilitating students' learning. Ben-Peretz (2001) said that teacher education is delicate academic endeavor because once a teacher teaching is performance is vague, ambiguous, and fraught with uncertainties it will lead to tremenduous misconceptions among learner. This scenario poses extremely difficult challenges for teacher education. Ben- Peretz as cited by Sindelar and Rosenberg (2000) identified some demands regarding teacher education that are contradictory. These includes legislative mandates for curriculum coverage, restrictive university regulations, and the"consumer orientations" of higher education students. In addition, there is a danger of professional standards of being ignored due to extreme shortages of teachers which may lead to lack the necessary competencies of teaching force pertaining to the demands of the profession.

Like other colleges and universities, the MSU Tawi-Tawi faculty members have the same roles. As expected, such role should come up with quality output to fulfill the institutional goals and objectives as its mandate. Through evaluation, one can see the real picture and image of such role that it is from here where necessary actions be conceived and realized for further development that its continuity of teaching roles be assured. Oriondo and Antonio (1989) affirmed that systematic process on determining the extent to which instructional objectives are achieved through evaluation is deemed necessary. Decisions making should be trusted based on the individual needs of learners in the classroom. Both the flexibility and responsiveness require the idiosyncratic nature of learning (Humberman 1983, McDonald 1992). To address this problem, this study was undertaken to develop and unify a set of measures that could be used to assess and evaluate the effectiveness of the roles of teachers in higher education institutions. Lariosa (2001) stated that excellence is what we want in a university because it sets high expectations and goals for all the learners, and then we also work hard in every way to help our students achieve excellence. The school is a "miniature society" by itself and thus, forms a new generation of citizens capable of thinking and changing as conditions in society also change. It was indeed the main concern of this study to provide leeway for the improvement, modification, and redirection of educators' role in higher education institution by adopting the path analysis and discrepancy evaluation models.

Statement of the problem

This study was undertaken to develop and unify a set of measures that could be used to assess and evaluate the effectiveness of teachers' performance and to determine the relationship of the teachers' performance to the teaching methods in higher education institutions. As mentioned by Sutaria in Nagtalon (2001), quality education could only be attained through upgrading educational standards that enhance the development of excellence in education as well as in life. However, Eisner (1995) states that some educators refuse to understand the importance of their role in evaluation. Often times, they feel evaluation as fault-finding mission rather than improving instruction and learning strategies. Thus this study specifically sought answers on the following statements; first, does the demographic profile of the participants significantly contribute to the variance in the relationship between the performances of educators? Second,

what relationship exists among the teaching habits, attitudes, skills, demographic profiles and educators' performance? Third, which of the variables in the t models that have great influence on educators' performance and most best fits model? The hypotheses statements in this study were concentrated on educators' performance data as measured by teaching variables through path analysis using Pearson product-moment coefficient from seven causal models (See Annexes for each model). According to Gronlund (1995) path analysis and discrepancy evaluation model are processes or cluster of processes that the faculty perform in order to gather data that will enable them to decide whether to continue, change, revise or terminate some teaching roles. In evaluation both educators and educational managers are concerned with determining the relative values of whatever they are performing.

Research Design of the Study
This study made used of a descriptive correlational research design. The purpose of this descriptive correlational study (Causal Model) was to assess, identify, determine and find out by examining the relationships of the teaching habits, attitudes, skills, and other variables in the demographic profiles of educators performance in MSU Tawi-Tawi as measured by the data collected from educators teaching in college. Models of the different path and relationship of variables were shown in the annex section of this paper. Teaching Habit (TH), Teaching Attitude (TA), Educators Performance (EP) is shown in Figure1. Path model 1 showing the teaching habits and teaching attitudes influence on the performance of educators. Variables Teaching Habit (TH); Teaching Skills (TS); Teaching Attitude (TA); EP DE UR CF AO TR OM RA SN 'C E is shown in Figure2. Path model 2 shows that teaching skills influence on the performance of educators Teaching Skill (TS) Teaching Educators' Attitude Performance (TA) (EP) Teaching Habit (TH) Figure3. Path Model 3 showing no link between teaching attitudes and educators' performance. Teaching Educators' Experience Performance (TE) (EP) Teaching 0.08S6kills (TS) Monthly Income (MI) Figure 4. Path model 4 shows the total effect of teaching experience on Performance Satisfaction.

The direct effect on performance, teaching skills, and monthly income Teaching Skills, Teaching Experience, Teaching Habit, Educational Attainment Educators' Performance Appointment, Teaching Status, Attitudes, and Administrators' Involvement are shown in Figure5. Path Model 5 shows the variables and arrows to indicate the direction of effects to be investigated or educators' performance Teaching Skills, Teaching Experience, Teaching Habits, Teaching Attitudes, Educational Attainment, Teaching Attitudes, and Administrators' Involvement (Figure6). Path model 6 shows the variables influencing educator's performance Teaching Skills, Teaching Habits, Appointment Status, Educators' Performance, Teaching Attitudes, and Administrators' Involvement (Figure7). Path Model 7 is showing the best model of the independent variables to the dependent variables.

Significant of the study
The concern and highlight of this study was on important feature on the role of educators to provide faculty an elbow room for self-esteem, self-realization, self-improvement; to provide students with excellent learning and opportunities for acquisition of quality knowledge; and put forward the goals and objectives of educational managers to achieve standard as prescribed by the university. The findings of this study would provide educational managers some bases in the formulation of policies, standards to optimize the capabilities of higher education institution in the different part of the country in providing excellent education for the intended beneficiaries of tertiary education. This would awaken and make them aware of their strengths and weaknesses in their teaching roles and functions as educators and educational managers. The administrators would know where to improve and develop their skills, methods, approaches, and

practices for effective performance in teaching learning activities. The result of this study would be useful for the incoming, new and old educators for a more effective, efficient, dynamic and successful teaching- learning activities. It would provide the chairpersons, deans, directors, secretaries, supervising- instructors, program coordinators, and unit heads as well as instructors and professors important information to improve their management and supervision practices and serve as basis for improving and developing the teaching methods, strategies and techniques to maximize learning activities. This study would provide the educators important insights that would encourage and boost their moral and make them responsible citizens in a technological age. To students, this study would bridge gap among limitations and bring about better understanding of themselves, their mentors, staff and educational managers. They would be more keen observers of their academic endeavors and be guided as to their conduct of behavior and actions. As ultimate beneficiaries of these educational mandates, the student would acquire more if there are changes in classroom management. Heller (1998) stressed that improving performance needs to challenge existing ways of working through systematic approach. One must learn to improve and generate their own tasks, tackle problems, agree on solutions, and implement their decisions with confidence. This will become successful when the educators are properly guided, supported and given attention in improving their teaching methodologies: quality instruction, quality facilities, and quality improvement, it would result to quality learning vis-à-vis quality educators, thus quality education and graduates. To Commission on Higher Education (CHED) management as a whole, this study would provide input to enhance and improve current policies, rules and regulation affecting the evaluation on the role of educators as well as relevant insights to curricular expansions in the future evaluations.

Methods of Procedure
This descriptive correlation causal model study was designed to examine the relationship of educators' performance with teaching habits, skills, attitudes as well as demographic profile. In an effort to establish a clearer view of the performance, the seven (7) models of teaching strategies showing different arrows intertwined from endogenous and exogenous variables were drawn based on the usual practice of the educators. The total sample population consisted of college educators of Mindanao State University in Tawi-Tawi that gathered data from them for the school year 2004- 2005.

Collection of Data
With the permission from the Office of the Mindanao State University at Tawi-Tawi Chancellor, the researcher stated gathering data from seven colleges throughout that institution. Data were taken from the college faculty of MSU Tawi- Tawi involving ten colleges including the extension classes at the different municipalities of Tawi-Tawi province. Data were gathered through the survey questionnaire which was valid and reliable with an alpha coefficient of = 0.87 reflecting high reliability. This was pre- tested among the college faculty of Central Mindanao University, Musuan, Bukidnon, Philippines. It took one month of January 2005 to gather the data from seven colleges in the Island Municipalities where College of Arts and Sciences Extensions located. For the Island Municipalities College Arts and Sciences Extensions faculty participants, questionnaires were sent through hired research assistant that spent two weeks to retrieve the responses. Primary data were collected through personal interview and administration of the questionnaire by the researcher. The high school and elementary educators were excluded in this study. All in all there were 130 college faculty of MSU Tawi-Tawi who were the respondents of the study.

Treatment of Data
All gathered data were summarized, translated, interpreted and analyzed using a statistical software. Descriptive statistic was used to describe the educators, performance in college

teaching at Mindanao State University Tawi-Tawi. Pearson Product Moment Correlation was used to determine the linear associations or relationship among the selected variables such as the performance of the educators in performing their roles in teaching. Multiple stepwise regression analysis was used to determine the variations of independent variables that are influential and have direct and indirect effects on the educators' performance in teaching. It was also used to determine the most important factors that contributed to the competence and skills developed by the educators. Furthermore, path analysis was used for studying the patterns among the demographic profile, teaching habits, attitudes, skills, performance and practices of educators in teaching. This 12 was also utilized for identifying the direct, indirect and total effects of the variables in the models. The one-way analysis of variance (ANOVA) was employed to determine the significance among the means of the responses to the questionnaire from the group of participants. To get the best model and best fits of the data multiple stepwise regression analysis was used. The endogenous variable and exogenous variables have intertwined arrows showing the direct, indirect and total effects. To determine statistical significant of the data 0.05 level used as measure.

Findings

This inquiry intended to analyze and determine which among the variables, demographic profile, teaching habits, attitudes, skills, experience, and administrators' involvement were the best predictors of the educators' performance in college teaching using path analysis. It investigated further into the possible patterns of causation among variables that directly or indirectly involve or affect the educators' performance in college teaching.

Among the hypotheses tested the variables that show significant relationships to educators' performance are: teaching habits and attitudes; teaching habits and skills; skills and attitudes; teaching experience and monthly income; teaching experience and administrators' involvement; skills and administrators' involvement. Only the educator's appointment and teaching skills shows no significant relationship. The numerical values of significant were the following; Teaching Skills 0.021 0.286 0.173; Teaching Habits 0.184 0.563; Appointment Status 0.012; Educators' Performance 0.250 0.134; Teaching Attitudes 0.123 0.075 0.023; Administrators' Involvement 0.136 0.283; (Figure7). Path Model 7 is showing the best model of the independent variables to the dependent variable.

Conclusion and implication of the study

The level of teaching habits of educators in their identified roles is very high as indicated by the computed Pooled Average weighted Mean of 4.57. Thus, the null hypothesis stating that there is no significant relationship between appointment status and teaching habits on the educators' performance is rejected since significant relationship between the appointment status and teaching habits on the educators' performance existed. The attitudes acquired by the educators towards their role were also very high as revealed by the Pooled Average Weighted Score of 4.58. This means that educators who have good attitudes also developed positive teaching habits. This claims is supported with the statistical results showing a significant relationship between the variables. Educational attainment and teaching attitudes on educators' performance is also highly correlated.

The relationship between teaching habits and teaching attitudes of the educators is highly influential on the performance of educators and significantly correlated. Thus, the null hypothesis stating that there is no significant relationship between teaching habits and attitudes is rejected. The skills acquired by the educators who undergo teaching have greatest effect/influence on the educators' performance as evidenced by the path coefficient of 0.662.

This means that skills have influenced so much on the educators' performance. Therefore, there is significant relationship between the teaching skills and attitudes on the educators' performance. The level of performance of educators in the fulfillment of their teaching role is relatively high as indicated by the computed Pooled Average Weighted Score of 4.39. This means educators that have really often performed their teaching roles. It is also significantly existed when educators' role was correlated with teaching efficiency using different strategies. Thus, teaching skills and monthly income in the performance of educators is significantly correlated. The relationship between teaching habits, skills and performance of educators in fulfilling their teaching roles significantly existed when they were correlated. The factors that have direct influence on the performance of educators are the following: teaching habits with coefficient value 0.250, skills 0.265, attitudes 0.331, age .039, and civil status .043 at 1% level of significance. This means that all of these factors had greatly contributed/influenced on educators' performance. These results indicate that there is significant relationship between the teaching skills and administrators' involvement on the educators' performance. Other results showed a no significant relationship existed between educators' performance and their sex, religion, monthly income, appointment status, years of experience in college teaching, and educational attainment.

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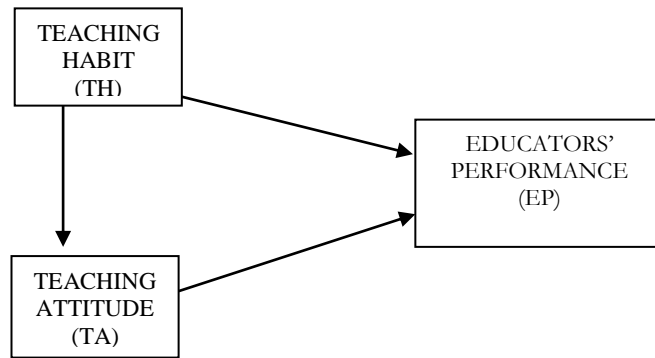
Annexes

Figure1. Path model 1 showing the teaching habits and teaching attitudes influence on the performance of   educators
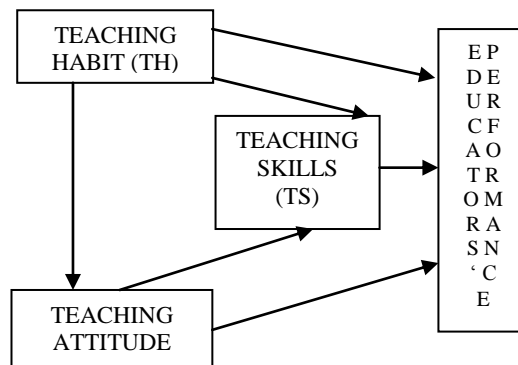

Figure2. Path model 2 showing that teaching skills influence on the performance of educators
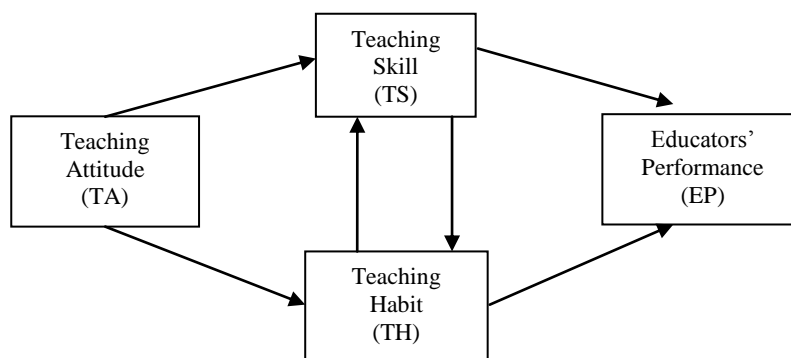

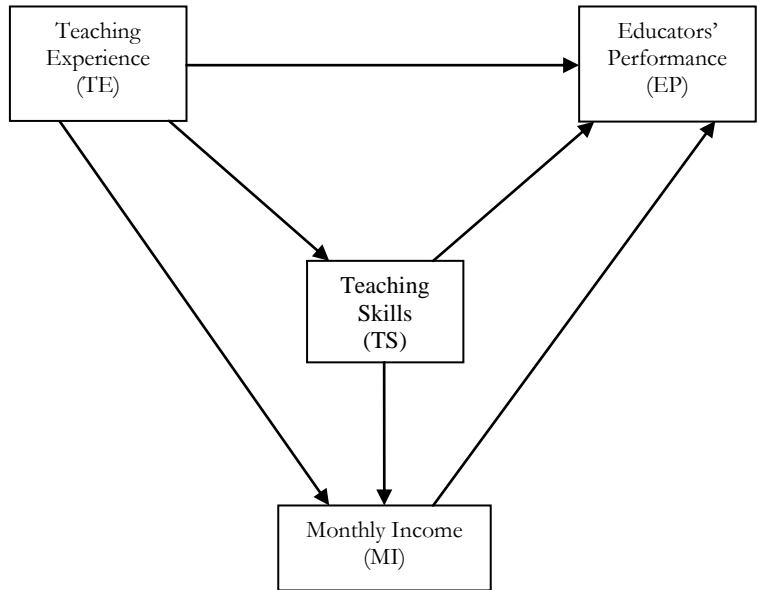Figure3. Path Model 3 showing no link between teaching attitudes and educators' performance.

Figure 4. Path model 4 showing the Total effect of teaching experience on Performance Satisfaction. In comparison, the direct effect on performance, teaching skills, and monthly income
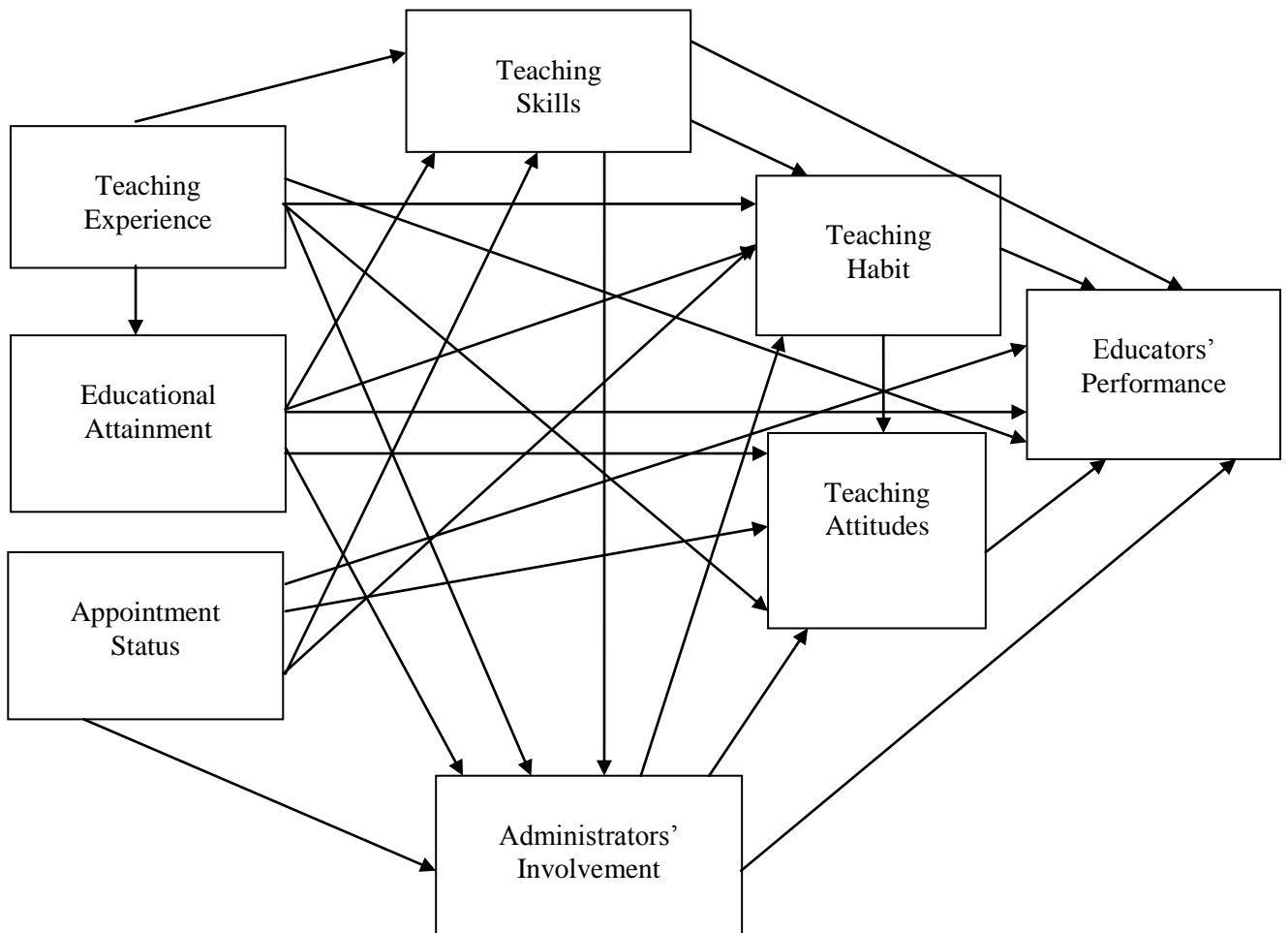

Figure5. Path Model 5 showing the variables and arrows to indicate the direction of effects to be investigated or educators' performance
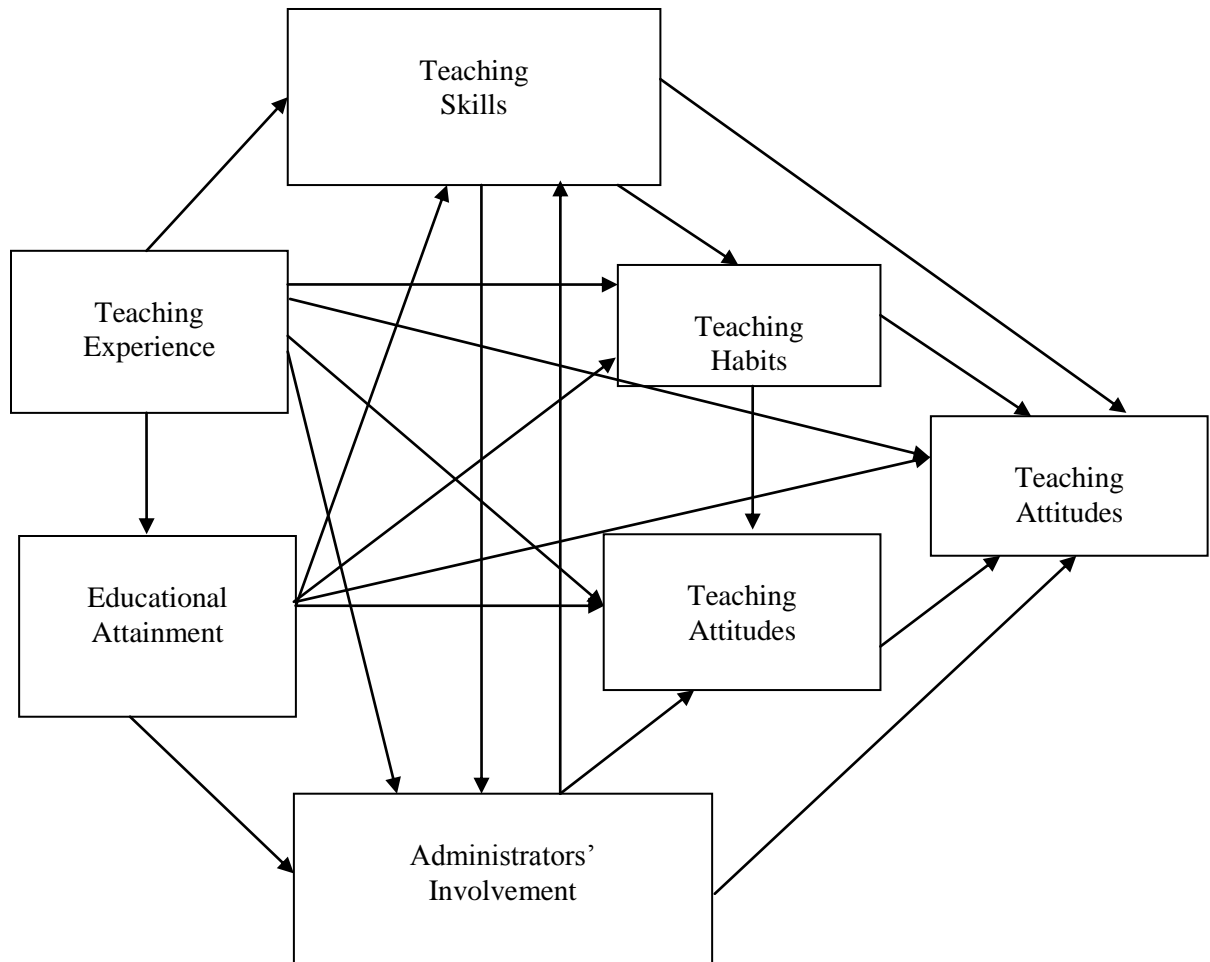
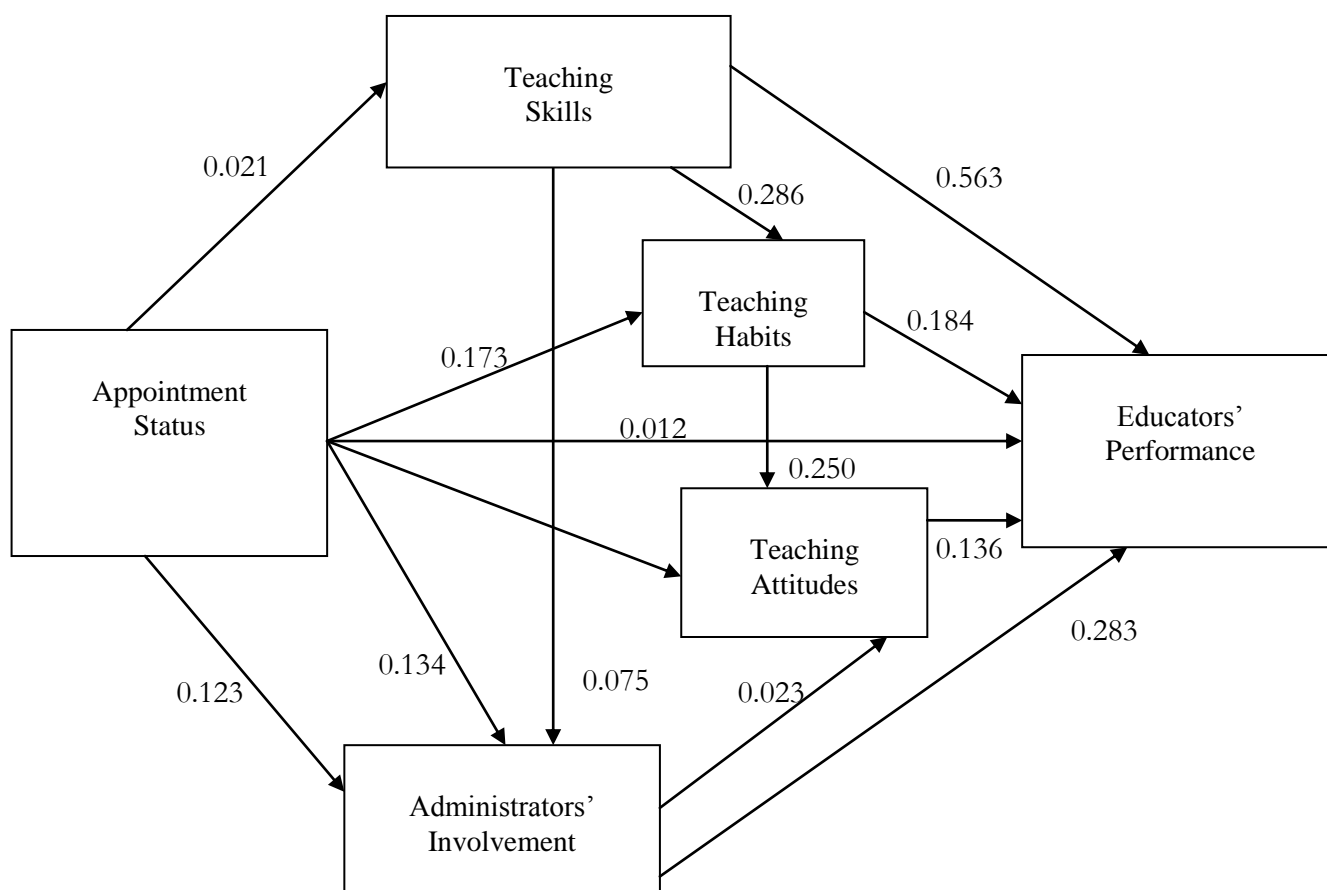Figure6. Path model 6. Showing the variables influencing educators performance

Figure7. Path Model 7 showing the best model of the independent variables to the dependent variable

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