

Motives, Attitudes And Performance Of Teacher Education Students

Bukidnon, Philippines, Gladys S. Escarlos, Denis A. Tan

Abstract: This study investigated the motives, attitude and performance of teacher education students of Central Mindanao University. It aimed to determine the respondent's profile, their motives underlying the choice of teaching profession, their level of attitude towards teaching as a profession and toward the role of a teacher, their level of performance in general education, professional education, and major courses and identify the predictors of their performance. A structured questionnaire was used to gather the necessary data from the randomly selected two hundred ten (210) respondents from second to fourth year level. Data showed that students CMUCAT rating ranges from 81-100 which indicates high performance in the entrance test. Moreover revealed that majority of the students were children of families with low income but were intrinsically motivated in pursuing teacher education degree and have positive attitude towards teaching as a profession and as their future career. Step regression analysis showed that independent variables like CMUCAT rating, towards teaching as a profession, and motive involving taking up education as their second choice is difficult to pass profession has a greater influence on academic performance as reflected by its high beta weight. The remaining 56.7% of students' academic performance can be explained by other factors not included in this study. These instructions give you guidelines for preparing papers for IJSTR JOURNALS. Use this document as a template if you are using Microsoft Word 6.0 or later. Otherwise, use this document as an instruction set. The electronic file of your paper will be formatted further at IJSTR. Define all symbols used in the abstract. Do not cite references in the abstract. Do not delete the blank line immediately above the abstract; it sets the footnote at the bottom of this column. Don't use all caps for research paper title.

Index Terms: Attitudes, CMUCAT Rating, Motives, Performance, Roles

1 Introduction

PRE-service training in the Philippines is provided by Teacher Educational Institutions (TEIs) coordinated by the Commission on Higher Education (CHED). In accordance with the pertinent provisions of the Republic Act (RA) No. 7722, otherwise known as the "Higher Education Act of 1994", and for the purpose of rationalizing the undergraduate teachers education in the country to keep pace with the demands of global competitiveness, it is adopted and promulgated by the Commission that quality pre-service teacher education is a key factor to quality Philippine education. The pre-service preparation of teachers for primary and secondary educational sectors is a very important function and responsibility that has been assigned to higher education institutions. All efforts to improve the quality of education in the Philippines are dependent on the service of teachers who are properly prepared to undertake the various important roles and functions of teachers. As such, it is of utmost importance that the highest standards are set in defining the objectives, components, and processes of the pre-service teacher education curriculum. Teacher training institutions should look into their requirements to ensure that they will attract students who will become teachers belonging to the upper quartile. Intelligent decision for choosing this profession is a critical consideration, hence, personal and professional preparation is a requirement. It is a profession that calls for an assessment of one's qualification. Hyman (1994) underscored the point that one must know what teaching is because his concept of teaching guides his behavior. Awareness of ones work and its meaning, is one of the foremost object of teacher education, hence, this must be included in all initial and further training given to teachers. Moreover, the standard of being a good teacher does not only include the intellect and the skill but also, it requires other factors such as motivation for teaching and the attitude towards teaching. As stated by Abdullah et al. (2006), a highly motivated teacher with the right attitude would always strive for excellence in his or her teaching practice. In addition to the motives of pursuing and having the knowledge for this profession, the issues concerning teacher's personality and behavior are significant contributors to the teaching and

learning process for any discipline (Ispir, 2010). Because of this, motives for pursuing a teacher education course, attitudes towards teaching as a profession and roles of a teacher become the subject of this study. Personal profiles of the respondents were also taken into consideration such as the CMUCAT rating, parents' educational attainment, family's monthly income and type of secondary school last attended. It further look into the predictors of performance in General Education Courses, Professional Courses, and Major Courses.

2 METHODOLOGY

This study adopted the descriptive correlational method of research in determining the motives, and attitudes towards teaching of teacher education students in Central Mindanao University. Personal profiles as well as the performance of the respondents in their General Education, Professional and Major Courses were also investigated. The obtained information was correlated with their performance in their subjects and the student's profile. The respondents of this study were the randomly selected education students of Central Mindanao University. They were the second year to fourth year students of the Bachelor of Secondary Education program. The respondents were proportionally stratified and selected from the list through random sampling technique. Out of 442 total population 210 were taken. This study adopted the descriptive correlational method of research in determining the motives, and attitudes towards teaching of teacher education students in Central Mindanao University. Personal profiles as well as the performance of the respondents in their General Education, Professional and Major Courses were also investigated. The obtained information was correlated with their performance in their subjects and the student's profile. The respondents of this study were the randomly selected education students of Central Mindanao University. They were the second year to fourth year students of the BSE program in the college. Freshmen were not included in the samples since they do not have any major and professional education subjects yet. The respondents were proportionally stratified and selected from the list through random sampling technique. Out of 442 total

populations, 210 were taken.

3 FINDINGS

Majority of the students indicated that they choose teaching because it is the course they like, love and they have the aptitude for it. Gines (1999) mentioned that personal motives, desires, interests, talents and skills need to be considered in choosing a profession. Becoming an effective teacher reflects an attitude towards teaching as a profession. It is ideal that teachers really love teaching and look at it with a sense of pride and mission. The Holland's theory explained that congruent, consistent pairings of the individual and his occupational environment provide a more stable vocational choice, greater vocational achievement, higher academic achievement, and greater satisfaction. Teaching is a demanding work. One has to love the work to stay focused.

Table 2. Distribution of Respondents According to their Primary Motives Underlying the Choice of a Teacher Education Course

Variable	Frequency	Percent
(1) Did not have any choice because I did not know what I wanted to be.	15	7.1
(2) Had another course as first choice but it was too difficult to pass.	11	5.2
(3) My parents chose for me because it was the easiest to be called professional.	18	8.6
(4) My parents cannot afford for my first choice course because it was expensive.	29	13.8
(5) It is the course I like, I love teaching, and I have the aptitude for it.	103	49.0
(6) Teaching is a good paying job.	3	1.4
(9) It will give the opportunity to go abroad.	4	1.9
(10) Others.	16	7.6
Total	210	100

The attitude of the respondents was also evaluated based on the National-Competency Based Teaching Standards (NCBTS) seven domains. As shown in Table 3, the respondents disclosed a considerable agreement of the students' perception with that of the desired attitude towards the teaching profession. (Over All Mean of 4.16).

Table 3. Summary Result on Attitudes of Teacher Education Students Towards Teaching as a Profession

Performance Indicator (Domains of Teaching & Learning)	Weighted Mean	Descriptive Rating
1. Social Regard for learning	4.77	Strongly Agree
2. Learning Environment	3.85	Agree
3. Diversity of Learners	3.80	Agree
4. Curriculum	4.96	Strongly Agree
5. Planning, Assessing and Reporting	4.42	Agree
6. Community Linkages	3.28	Undecided
7. Personal Growth and Professional Development	3.99	Agree
Over all Mean	4.16	Agree

It is deduced that the students strongly agree (weighted mean = 4.77) that teachers should serve as positive and powerful role models of the values of the pursuit of learning and of the effort to learn as cited in the domain of Social Regard for Learning. A teacher's actions, statements, and different types of social interactions with students exemplify this ideal, which

is an important principle to be cultivated on teacher education students. The domain of Learning Environment focuses on the importance of providing for a social, psychological, and physical environment within which all students regardless of their individual differences in learning can engage the different learning activities and work towards attaining high standards of learning. It is evident that the respondents have started to develop the importance of establishing an environment conducive for learning and teaching as well based from the obtained weighted mean of 3.85. The domain of Diversity of Learners emphasizes that teachers can facilitate the learning process in diverse learners by first recognizing and respecting individual differences, then using knowledge about students' differences to design diverse sets of learning activities to ensure that all students can attain desired learning goals. The respondents disclosed a positive attitude on this domain. Moreover, they strongly agree (weighted mean=4.96) on the importance of curriculum which elements of the teaching-learning process work in convergence to help students attain high standard of learning, such as the teacher's knowledge of the subject matter and the learning process, teaching-learning approaches and activities, instructional materials, and learning resources, in achieving a higher level of learning. While the domain on Planning, Assessing and Reporting focuses on the use of assessment data to plan and revise teaching-learning plans, the integration of assessment procedures in the plan and implementation of teaching-learning activities, and reporting on the learner's actual achievement and behavior indicated a positive attitude (weighted mean=4.42). However, the respondents were undecided on the idea for the domain of community linkages (weighted mean=3.28). This domain focuses on teacher's efforts directed at strengthening the links between schools and communities, particularly as these links help in the attainment of the curricular goals. Since still on pre-service training, majority of pre-service teachers focus primarily on their work inside the classroom or in school and mostly develops the passion of extending education in the community when already in-service (Getzels and Jackson, 1993). Respondents have not yet felt the relevance of class activities in the community since they have not totally immersed themselves in their chosen profession. On the other hand, respondents had a favorable attitude on the domain of Personal Growth and Professional Development (weighted mean=3.99) which emphasizes that teachers value having a high personal regard for the teaching profession, concern for professional development, and continuous improvement as teachers. Bilbao (2006) emphasized that a teacher doesn't stop learning, one's a teacher you will always a student. It is a responsibility to maintain the nobility of teaching as a profession. Previous studies revealed that teacher's attitudes in a class setting are closely related with the students' in a variety of aspects. For instance, according to some quotations from findings of some research (Thompson, 1993), the personal inclination of the teacher is one of the most important variables of students' inclination. There is a positive correlation between teachers' professional concentration and students' modeling that feature of him/her. A positive correlation was observed between teacher's attachment to the subject and that of the students. In short, the quality of the teacher's attitude is one important variable which means a lot for the educational system to achieve its objectives. A positive attitude towards one's work makes a

difficult job lighter. It makes one finds ways and means to do things in the best way he can. It gives a sense of pride to be doing or to have done a task successfully. If one loves teaching, he/she will also love the other things and persons that accompany the performance of his/her task (Gines, 1999).

Role of the Teacher

The attitudes of students towards the roles of the teacher, the indicator obtained an overall mean of 4.01 which shows that the respondents agree on the roles and responsibilities of a teacher (Table 4).

Table 4. Summary Result on Attitudes of Teacher Education Students on the Roles of Teachers

Roles of a Teacher	Weighted Mean	Descriptive Rating
1. As Manager	3.56	Agree
2. As Motivator	4.61	Strongly Agree
3. As Leader	4.10	Agree
4. As Model	4.61	Strongly Agree
5. As Surrogate Parent	3.72	Agree
6. As Social Catalyst	4.22	Agree
7. As Facilitator or Instructor	3.27	Undecided
8. As Guidance Counselor	3.94	Agree
Over all Mean	4.01	Agree

Specifically, the respondents strongly agree that teachers should be a motivator and set the mood of learning by way of stimulating the interest of the learners and gets them more involved in the class activities. Likewise, on the attitude towards the role of the teacher as model, result shows that majority of the respondents strongly agree that teachers should always maintain dignity and self-respect when dealing with the students and they should demonstrate the good traits of a person worthy of emulation as a model to the students. However, the respondents were undecided on the negative concept of the role of a teacher as facilitator or instructor. As facilitator, finishing the coverage is not the main emphasis in a teaching learning process but rather the process of learning. It is evident that the respondents have positive attitude towards the teaching profession and its varied roles and responsibilities in the classroom. Understanding what teaching is will help them be prepared, guided in all activities they engaged in this profession.

Performance of the students

On the performance results revealed that majority of the respondents have average performance ranging from 2.01-2.45 in general and major courses. While their performance in professional education course obtained an average grade ranging from 1.76-2.00. This indicate that the teacher education students in Central Mindanao University perform better in their professional education courses as compared to their general education and major courses. A number of education students receive honors upon graduation as can be indicated in the results of the study. Student performance can be accounted to a number of factors including classroom setting, and teacher involvement (Weinstein, 1989). Furthermore, it was disclosed that CMUCAT results found to be negatively correlated with the respondents' performance in general education courses base from the obtained r-value of

-0.451., -0.519 for professional education courses, -0.415 for major courses. Other profile variables did not show a significant relationship with their performance.(Table 5).

Table 5. Pearson Correlation on the Respondents' Performance and Profile

Variable	Age	CMUCAT	Education		Income	High School
			Father	Mother		
Gen. Educ.	0.083	-0.451**	-0.043	-0.097	0.012	0.028
Profl Educ.	-0.101	-0.519**	-0.059	-0.116	-0.066	0.044
Major	-0.079	-0.415**	-0.102	-0.116	-0.101	-0.004
GWA	-0.049	-0.568**	-0.091	-0.137	-0.07	0.027

*Correlation is significant at the 0.05 level.

**Correlation is significant at the 0.01 level.

It was also noted that the respondents' performance and motives for choosing teaching specifically motive 2 (I had another course as my first choice but I ended up taking Education because my first choice was too difficult to pass) is negatively correlated with the students' performance in major courses (r-value of -0,160 p-value < 0.05)as shown in Table 6. Moreover, motive number 5 is positively correlated with the respondents' performance in their major courses with a r-value of 0.147 (p-value < 0.05). Other motives underlying the choice for taking a teacher education course did not show a significant relationship with the respondents' performance.

Table 6. Pearson Correlation on the Respondents' Performance and Motives

Var	M2	M3	M4	M5	M6	M7	M8	M9	M10	
Gen.Ed	0.011	-0.127	-0.076	0.052	0.056	0.086	0.093	-0.045	0.084	0.038
Profl Ed	0.877	0.067	0.276	0.455	0.423	0.213	0.179	0.515	0.227	0.587
Major	0.018	-0.077	-0.044	0.057	0.014	0.085	0.047	-0.108	0.004	0.072
GWA	0.795	0.266	0.529	0.408	0.846	0.222	0.498	0.119	0.957	0.301
	0.033	0.160*	0.018	-0.103	0.147	0.101	0.035	-0.031	-0.033	-0.006
	0.635	0.02	0.79	0.138	0.033	0.145	0.612	0.66	0.635	0.927
	0.027	0.153*	-0.035	-0.008	0.097	0.113	0.07	-0.075	0.014	0.037
	0.697	0.026	0.61	0.908	0.159	0.102	0.315	0.281	0.838	0.592

*Correlation is significant at the 0.05 level

(Table 7) shows a negative correlation on students' performance in general education courses and attitudes towards teaching with a r-value of -0.250, professional education courses r-value -0.309, and its general weighted average with r-value -0.255, respectively (p-value < 0.01). Similarly, the respondents' attitudes towards the role of a teacher correlate negatively with their performance in general education with r-value of -0.196, professional education r-value-0.208 and over-all performance r-value -0.182, respectively (p-value < 0.01). Performance of students in their major courses did not show a significant relationship with the students' attitudes.

Table 7. Pearson Correlation on the Respondents' Performance and Attitudes

Variable	Attitudes towards Teaching as a Profession	Attitudes towards the Role of a Teacher
General Education Courses	-0.250**	-0.196**
Professional Education Courses	-0.309**	-0.208**
Major Courses	-0.095	-0.062
General Weighted Average	-0.255**	-0.182**

**Correlation is significant at the 0.01 level

A correlation between gender and performance in professional education course was also found in the study. This supports the study of Alkharusi (2002) which attempted to determine the correlation of different factors involving academic performance of first year education students and found a statistically significant group differences on gender and education major. Although, other studies conclude gender as a non-significant variable in determining student performance, the fact that males and females differ in their professional education performance should be noted. Likewise, admission rating also correlates with the performance of the respondents. This has the same findings on the study of Bejer et al (2010), he noted that admission test is a reliable tool but not an accurate tool in predicting student performance. Moreover, a negative correlation between performance and motive (students who took up education because their first course was too difficult to pass) was disclosed. In contrast, a positive correlation was revealed in motive (students who took up education because it is what they like). This relates the importance of intrinsic motivation in student performance. Those who like the course and what they are doing tend to perform better than those who don't. Motivation is a key factor in determining one's behavior and performance towards a goal. In most cases, students who perceive a positive attitude towards the course develop a better attitude and demonstrate good scholastic performance in the classroom.

Predictors of Respondents' Performance

Three predictors for student performance were determined by the study using the stepwise linear regression analysis as depicted in Table 9. The predictors of students CMUCAT rating with beta weight of -.0587, $p < 0.01$, attitudes towards teaching with beta weight of 0.191, $p < 0.01$, and motive underlying the choice of teaching profession as with beta weight of -0.146, $p < 0.01$. This indicates that a positive attitude towards teaching does not necessarily dictate good grades. Lastly, the third predictor for student performance is the motive underlying the choice of a teaching profession (due to the difficulty of the first choice course) with beta weight of -0.146, $p < 0.01$. Regression correlation coefficient between the predictors and the student performance is 0.433, which means that 43.3% of the academic performances of the respondents were explained by the independent variables, which 56.7% will be explained by other factors not included in the study.

Table 8. Stepwise Linear Regression of Independent Variables and Respondent's Performance

Independent Variables	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	4.104	0.198		20.774	0.000
CMUCAT Rating	-0.016	0.002	-0.587	-10.411	0.000
Attitude Towards Teaching as a Profession	-0.132	0.039	-0.191	-3.388	0.001
Motive 2 (Education as 2nd choice because the 1st choice was too difficult to pass)	-0.018	0.007	-0.146	-2.602	0.010
R = 0.658	R² = 0.433		p < 0.01		

The study revealed that the college admission test is a predictor in determining student achievement. A study on predictors determining student teacher performance conducted by Hall and Marchant (2000) pointed prior achievement including admission test rating as a reliable tool in determining academic performance of teacher education students. Pascua et al (2011) stressed that scores of students in specific areas of the admission test should be considered since, in her study, students who obtained high scores in the Mathematics area of the admission test also have better performance during their college education. It correlates with the study of Rahbar et al (2001) admission test results in specific areas correlates with the scholastic performance of the students in the first five trimesters of undergraduate medical education. Attitude towards a career choice is a good predictor of future performance among students. In a study of Zhang (2011) among Chinese students taking up education, those who displayed good perception about teaching and value it as a career tend to perform better than those who don't. Another performance predictor in the study is motive. Accordingly, those students who took up education because their first choice was too difficult to pass are likely to have lower performance. A commonly cited model in teaching and learning literature is the 3P model of classroom learning, outlined by Dunkin and Biddle in 1974 (Chan, 2008), which relates the main components in classroom learning – an imperative factor for performance evaluation – in terms of the three Ps: Presage (student's characteristics and teaching context), Process (task processing) and Product (nature of outcome). Among students' characteristics associated with learning, students' motivation is considered an important element. Determining student performance is essential in admitting teacher education students since this is a part of the teacher training process. As observed by Riney et al (2006), majority of students believe that their pre-service education training is valuable in preparing them as future teachers.

4 CONCLUSION

Majority of the students obtained higher CMUCAT results more than the passing rate of the university. Most of their parents graduated from public high schools and majority of their fathers' educational attainment are technical-vocational graduate while their mothers' are college level. Most of them belong to the lower socio-economic status since their parents have low monthly income. Although from lower socio-economic class but above normal and average intellectual

ability based on their admission examinations. Thus, the socio-economic background of the respondents is not affected on the decision of choosing teaching as their career. Majority of the respondents choose to be as the primary motive because it is the course they like, love and they have the aptitude for it. On the other hand, the attitude of the respondents was also evaluated based on the seven domains of the National-Competency Based Teaching Standards (NCBTS). The respondents' attitude towards the teaching profession disclosed a considerable agreement. Similarly, they showed a positive attitude towards the roles and responsibilities of the teacher. On the other hand, teacher education students in Central Mindanao University perform better in their professional education courses as compared to their general education and major courses. It was further disclosed that CMUCAT result is negatively correlated with the respondents' performance in general education courses, professional education courses, and major courses. While respondents' performance and motives for choosing teaching specifically motive 5 (it is the course I like, I love teaching, and I have the aptitude for it) is positively correlated with the respondents' performance in their major courses. Similarly, the respondents' attitudes towards the role of a teacher correlate negatively with their performance in general education, professional education. Performance of students in their major courses did not show a significant relationship with the students' attitudes. Moreover, a negative correlation between performance and motive (students who took up education because their first course was too difficult to pass) was disclosed. In contrast, a positive correlation was revealed in motive (students who took up education because it is what they like). Three predictors for student performance were determined by the study using the stepwise linear regression analysis. CMUCAT rating, attitudes towards teaching, and motive underlying the choice of teaching profession, are predictors of students' performance. Regression correlation coefficient between the predictors and the student performance is 0.433. It indicates that 43.3% of the academic performances of the respondents is explained by the independent variables, which 56.7% will be explained by other factors not included in the study.

5 END SECTIONS

5.1 Acknowledgments

Our heartfelt gratitude is extended to the University Research Office for making this study realized, the cooperation of faculty and students of the College of Education is highly recognized and most of all our Almighty Father who made all things in place and possible.

REFERENCES

- [1] Abdullah, N. A., Abidin, M. J. Z., Luan, W. S., Majid, O. and Atan, H. (2006). The attitude and motivation of english language teachers towards the use of computers. *Malaysian Online Journal of Instructional Technology*.
- [2] Acker, S. (1990). Teachers' culture in an English primary school: continuity and change. *British Journal of Sociology of Education*.

- [3] Açıköz, F. (2005). A study on teacher characteristics and their effects on students' attitudes. *The Reading Matrix*. Vol. 5: No. 2.
- [4] Alkharusi, H. (2002). Correlates of teacher education students' academic performance in an educational measurement course. *The International Journal of Learning*.
- [5] Bejer, U. S., Kapferer, I., Ostermann, H., Staudinger, R., and Dumfahrt H. (2010). Impact of a novel dental school admission test on student performance at innsbruck medical university, Austria.
- [6] Bilbao, Purita P., et al. (2006). *The teaching profession*. Lorimar Publishing Co. Inc., Quezon City, Metro Manila
- [7] Chan, K. (2008). Hongkong teacher education students' epistemological beliefs and approaches to learning. *Research in Education*.
- [8] Crossfield, P., Daughtery, M. and Merrill, C. (2004). Teacher attitudes toward and perceptions of student performance on the design component of the caribbean cxc examination. *Journal of Industrial Teacher Education*. Vol. 41: No. 3.
- [9] Darling-Hammond, L. (2006). *Powerful teacher education: Lesson from exemplary programs*. John Wiley & Sons, Inc. San Francisco.
- [10] Getzels, J. W. and Jackson, P.W.(1993). *The teacher's personality and characteristics*. Gage, Chicago.
- [11] Ghazali, S., Setia, R., Muthusamy, C., and Jusoff, K. (2009). ESL students' attitudes towards texts and teaching methods used in literature classes. *English Language Teaching*. Vol. 2.
- [12] Gines, A. (1999). *Educational Psychology. A textbook for college students in psychology and teacher education*. Rex Printing Press, Inc. Sampaloc, Manila.
- [13] Halawah, I. (2008). Factors influencing perspective teachers' attitudes toward teaching. *University of Sharjah Journal for Humanities & Social Sciences*. Vol. 5: No. 11.
- [14] Hall, K. and Marchant, P. (2000). Predictors of the academic performance of teacher education students. *Research in Education*.
- [15] Hussain, S., Ali, R., Khan, M. S., Ramzan, M., and Qadeer, M. Z. (2011). Attitude of secondary school teachers towards teaching profession. *International Journal of Academic Research*..
- [16] Ispir, O. (2010). A. teachers' burnout levels and their attitudes towards teaching. *EABR and ETLC Conference Proceedings*. Dublin, Ireland.
- [17] Pagud, T. (1999). The quality of teacher education program of bukidnon state college, school of education

SY 1990-1996. Unpublished Doctoral Dissertation. Xavier University.

- [18] Pascua, J., Navalta, J., Dela Cruz, L., and Valderama, J. (2011). College academic performance of teacher education students in a state university of region II. International Association of Multidisciplinary Research.
- [19] Petrides, J. R. (20016). Attitudes and motivation and their impact on the performance of young english as a foreign language learners. Journal of Language and Learning. Vol. 5: No. 1.
- [20] Rahbar, M. H., Vellani, C., Sajan, F., Zaidi, A. A., and Akbarali, L. (2001). Predictability of medical students' performance at the aga khan university from admission test scores, interview ratings, and systems of education. Medical Education, Blackwell Science Ltd.
- [21] Riney, M., Thomas, C., Williams, G., and Kelley, B. (2006). National implications: teacher education students' perceptions of state licensure requirements and pedagogical training. National Forum of Teacher Education Journal.
- [22] Taylor, E. W. (2002). Teaching beliefs of graduate students in adult education: a longitudinal perspective. ERIC Document Reproduction.
- [23] Ustuner, M. Demirtaş, H. and Cömert, M. (2009). The attitudes of prospective teachers towards the profession of teaching. Education and Science.
- [24] Weinstein, C. (1989). Teacher education students' preconceptions of teaching. Journal of Teacher Education.
- [25] Yaakub, N. A (1990). Multivariate analysis of attitude towards teaching. Universiti Pertanian Malaysia.
- [26] Zhang, Y. (2011). The determinants of national college entrance exam performance in china – with an analysis of private tutoring. Thesis Dissertation. Columbia University.