
Cognitive Disposition, Self-Determination and Attitude to Keyboarding as Determinants of Students' Achievement in Word Processing in Colleges of Education, South-West, Nigeria

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ABSTRACT: *The declining trend in performance of Business Education students in word processing has become worrisome to stakeholders most especially business education lecturers. This study therefore examined cognitive disposition, self-determination, and attitude to keyboarding as determinants of students' achievement in word processing in colleges of education in South-West, Nigeria. This study adopted a descriptive survey research design type. A sample of 1,346 students was selected through stratified random sampling technique from a population of 6,035 college of education students in South-West, Nigeria. Five research instruments were used for data collection. They are: Demographic Data Inventory, Cognitive Disposition Inventory ($\alpha=0.89$), Self-Determination Scale ($\alpha=0.86$), Attitude to Keyboarding Scale ($\alpha=0.76$) and Word Processing Achievement Test ($\alpha=0.89$). The null hypotheses were tested using Multiple Regression Analysis at 0.05 level of significance. The finding revealed that cognitive disposition, self-determination, and attitude to keyboarding significantly predict students' academic achievement in Word Processing ($F_{(3, 1342)} = 31.807, p < .05$). In the same vein, cognitive disposition ($\beta= .317, t=21.605, p < .05$), self-determination ($\beta=.226, t=12.449, p < .05$), and attitude to keyboarding ($\beta=.208, t=10.194, p < .05$) have relative contributions to the prediction of academic achievement in Word Processing among the students. It was therefore recommended, among others, that Business Education Lecturers in Colleges of Education should identify those strong cognitive disposition patterns in their classes and utilize fitting approaches to accommodate individual cognitive disposition preferences in their pedagogy. Educators should continually promote self-determination via both intrinsic and extrinsic motivation by helping learners to focus not only on the extrinsic rewards they gain after they accomplish tasks but to also inculcate the intrinsic value in their learning of Word Processing.*

KEYWORDS: cognitive disposition, self-determination, attitude, students' achievement, word processing, Colleges of Education, South-West, Nigeria

INTRODUCTION

Business education incidentally is a major component of vocational education emphasized in the National Policy on Education (FRN, 2013). Word processing which is one of the courses offered by Business Education students in Nigeria Colleges of Education constitutes a significant and indispensable skill-based academic discipline offer as part of Business Education programme. However, despite the importance of word processing to the training requirements of Business Education students, it appears that their level of academic achievement has not been quite encouraging.

Achievement can be said to be the outcome of instructions, and it is commonly measured by examination or continuous assessment or both (Labo-Popoola, 2012). Over the years, the performance of students in word processing as a course offered by Business Education students in Colleges of Education has regularly recorded a fluctuating and, in most cases, downward trends. As an illustration, series of external moderators' reports between 2014 and 2018 in most Federal and State owned Colleges of Education in South-west Nigeria has revealed that, there are lots of ground to be covered especially in building and sustaining the interest of Business Education students in word processing towards better performance. Also, Akume (2002) regrettably observed that out the 36 competencies required for effective performance in the work place, only 5 of them were averagely exhibited by Business Education graduates from Colleges of education.

Many factors have been advanced to be responsible for students' academic achievement. Among the student factors focused on in this study are cognitive disposition, self-determination and students' attitude towards keyboarding. Alliu (2014) sees word processing as a phenomenon that operates on the psychomotor domain of learning. However, the cognitive domain plays a significant role in the entire process. Word processing dwells much on beautifully coordinated body muscle movement alongside high level of cognitive processes. Strong cognitive disposition may be a major factor in word processing classes that can positively shape students' academic achievement especially in the area of flexibility, intensive thinking, openness, values, counter facts, evaluating reasoning, skill building and so on (Saunders, 2014).

The implication is that in achieving good performance in word processing, self determination plays series of significant roles. A critical examination of the concept in relation to education and training shows that self determination fundamentally deals with deliberate attempts aimed at promoting the good performance of students in specified academic activities, encouraging them to lay higher premium on education and developing a high level of self- efficacy in their individual capabilities (Adomnik, 2012). Furthermore, direct and genuine mental affiliation with the school programme and futuristic thinking about what the education acquired can offer in the nearest future might

stimulate self-determination, as far as academic achievement is concerned and also enhance dexterity in word processing. (Ju, Zeng & Landmark, 2017).

However, the actualisation of this will be a mirage without a positive pre-disposition to act; in essence, the attitude of the students to keyboarding. Attitude is a relatively persistent arrangement of feelings, beliefs and behavioural disposition directed at socially important events, objects and symbols. Veresova and Mala (2016) compartmentalised attitude into three substructures: the affective component, (this involves feelings and emotions), behavioural component (involving the way attitude influences how individuals behave or react to situations or things) and the cognitive aspect (dealing with the knowledge or belief individuals have about something). Basically, attitudinal disposition towards education, knowledge acquisition and learning tend to centre on the views, opinions, thoughts and beliefs individuals have about education and learning.

Keyboarding, one of the skill-based courses in business education is the act of producing written words as a printed document using either word processor or computer (Olupayimo & Ademiluyi, 2022). It involves drilling and needs constant practice because any discontinuity in teaching and learning of such skill-based courses is tantamount to starting afresh (Odim, Annastashia & Solomon, 2018). Basically, attitudinal disposition towards education, knowledge acquisition and learning tend to centre on the views, opinions, thoughts and beliefs individuals have about education and learning. Therefore, this study examined the influence of cognitive disposition, self-determination, and attitude to keyboarding on students' academic achievement in word processing in Colleges of Education, South-West, Nigeria.

Objectives of the Study

The main objective of this study was to examine the influence of cognitive disposition, self-determination, and attitude to keyboarding on students' academic achievement in word processing in Colleges of Education, South-West, Nigeria. The specific objectives were to:

1. find out the relative contributions of the predictor variables (cognitive disposition, self-determination, and attitude to keyboarding) on students' academic achievement in word processing in Colleges of education in South- Western, Nigeria.

Statement of the Problem

It is a known fact today that, the future of educational development depends on modern technology; and this technology relies on word processing skills to a considerable extent. However, despite the importance of word processing in the school curriculum and in the job market, a lot of Business Education students in Colleges of Education seem not to show keen interest in learning word processing skills, hence a low achievement in performance. Over the years, the performance of students in word processing as a course offered by Business Education students in Colleges of Education has regularly recorded a fluctuating and, in most cases, downward trends. Unfortunately, 5 competencies were averagely exhibited by Business Education graduates from Colleges of

education out of the 36 competencies required for effective performance in the work place. The thrust of this study therefore is the examination of cognitive disposition, self-determination and attitude to keyboarding as determinants of students' achievement in word processing in Colleges of Education, in South-West, Nigeria.

Hypotheses

Ho₁: There is no significant composite contribution of cognitive disposition, self-determination and attitude to keyboarding to the prediction of academic achievement in word processing among Colleges of Education students in South-West, Nigeria.

Ho₂: There is no significant relative contribution of cognitive disposition, self-determination, and attitude to keyboarding to the prediction of academic achievement in word processing among Colleges of Education students in South-West, Nigeria.

METHODOLOGY

This study adopted the descriptive survey research design. The target population of this study consisted of six thousand and thirty five (6,035), Business Education students in Two hundred Level (200L) in six public owned Colleges of Education, South West, Nigeria. A sample of 1,346 participants representing 22% of population was used for this study. Multi stage sampling technique was adopted for the study. The first stage was to determine three Colleges of Education each owned by Federal and State Government respectively that spread across the states of south west, Nigeria. Purposive random sampling techniques was used to select three out of the four Federal Colleges of Education in south west, Nigeria (FCE, Abeokuta, FCE(SP) Oyo, and Adeyemi (COE). The reason was that these three Colleges are conventional while the fourth that was not chosen is not a conventional institution. Simple random sampling technique was used to select three State Colleges of Education from the states where Federal Colleges Education were not chosen. In selecting participants for the study, a proportional stratified random sampling technique was adopted. The stratification was by gender of the students in each of the selected institutions.

Five research instruments were used for data collection. They are: Demographic Data Inventory, Cognitive Disposition Inventory($\alpha=0.89$), Self-Determination Scale($\alpha=0.86$), Attitude to Keyboarding Scale ($\alpha=0.76$)and Word Processing Achievement Test($\alpha=0.89$). The null hypotheses were tested using Multiple Regression Analysis at 0.05 level of significance.

The distribution of the sample by institution and gender is as presented in Table 3.1.

Table 1: Distribution of the Sample

S/N	State	Name of College and Location	Number of Business Education Students in the Colleges		
			Male	Female	Total
1	Lagos	Adeniran Ogunsanya College of Education, Oto-Ijanikin Lagos	41	104	145
2	Ogun	Federal College of Education, Abeokuta	62	111	174
3	Oyo	Federal College of Education (SP), Oyo	81	209	290
4	Ondo	Adeyemi College of Education, Ondo	80	192	272
5	Ekiti	College of Education, Ikere-Ekiti	75	126	201
6	Osun	College of Education, Ilesa.	78	186	264
		Total	417	929	1346

RESULTS

Hypothesis One

Ho1: There is no significant composite contribution of cognitive disposition, self-determination, and attitude to keyboarding to the prediction of academic achievement in word processing among College of Education students in South-West, Nigeria.

Table 2: Model Summary and Coefficients of the Multiple Regression Analysis for the Composite Contribution of Cognitive Disposition, Self-Determination, and Attitude to Keyboarding to the Prediction of Academic Achievement

R = .317

R Square = .100

Adjusted R Square = .094

Std. Error = 12.77504

Source of Variation	Sum of Squares	Df	Mean Square	F	Sig.
Regression	2009.452	3	669.817	31.807	.000
Residual	28260.812	1342	21.059		
Total	30270.264	1345			

Dependent Variable: Academic Achievement

Predictors: (Constant), Cognitive Disposition, Self-Determination, Attitude to Keyboarding

Table 2 reveals significant results ($F_{(3, 1342)} = 31.807, p < .05$). The null hypothesis which stated that there is no significant composite contribution of cognitive disposition, self-determination, and attitude to keyboarding to the prediction of academic achievement in word processing among

College of Education students in South-West, Nigeria was therefore rejected in favour of the alternative hypothesis, leading to the conclusion that there is a significant composite contribution of cognitive disposition, self-determination, and attitude to keyboarding to the prediction of academic achievement in word processing among College of Education students in South-West, Nigeria. Table 2 further shows that cognitive disposition, self-determination, and attitude to keyboarding accounted for 9.4% of the variance in academic achievement among the participants ($\text{Adj. } R^2 = .094$).

Hypothesis Two

There is no significant relative contribution of cognitive disposition, self-determination, and attitude to keyboarding to the prediction of academic achievement in word processing among College of Education students in South-West, Nigeria.

Table 3: Coefficients of the Multiple Regression Analysis for the Relative Contribution of Cognitive Disposition, Self-Determination, and Attitude to Keyboarding to the Prediction of Academic Achievement

Model	Unstandardized B	Std. Error	Beta	T	Sig.
(Constant)	12.784	.367		35.295	.000
Cognitive Disposition	.027	.021	.317	21.605	.000
Self-Determination	.032	.013	.226	12.449	.000
Attitudinal Disposition	.028	.018	.208	10.194	.000

Dependent Variable: Academic Achievement

Predictors: (Constant), Cognitive Disposition, Self-Determination, Attitude to Keyboarding

Table 3 reveals significant results. The null hypothesis which stated that there is no significant relative contribution of cognitive disposition, self-determination, and attitude to keyboarding to the prediction of academic achievement in word processing among College of Education students in South-West, Nigeria was therefore rejected and the alternative hypothesis was upheld leading to the conclusion that there is a significant relative contribution of cognitive disposition, self-determination, and attitude to keyboarding to the prediction of academic achievement in word processing among College of Education students in South-West, Nigeria. Cognitive style was the strongest predictor of academic achievement ($\text{Beta} = .317$, $t = 21.605$, $p < .05$). This was successively followed by self-determination ($\text{Beta} = .226$, $t = 12.449$, $p < .05$) and attitudinal disposition ($\text{Beta} = .208$, $t = 10.194$, $p < .05$).

DISCUSSION

The first hypothesis stated that there is no significant composite contribution of cognitive disposition, self-determination, and attitude to keyboarding to the prediction of academic

achievement in word processing among College of Education students in South-West, Nigeria. A test of this hypothesis led to its rejection and the upholding of the alternate hypothesis which affirmed that there is a significant composite contribution of cognitive disposition, self-determination, and attitude to keyboarding to the prediction of academic achievement in word processing among College of Education students in South-West, Nigeria. This finding is plausible because adopting fitting cognitive disposition using an integration of visual, auditory, and kinesthetic reinforcement would enhance the learning of both the theoretical and practical aspects of word processing. Acquisition of effective word processing skills or competence demands the effective utilization of the three cognitive dispositions. This finding corroborates Tella (2008) who reported that academic achievement in reasoning and psychomotor skills and came to the conclusion that both cognitive disposition and self-determination are interwoven hence, *asine-qua-non* to students' academic achievement in subjects requiring reasoning or psychomotor skills, to which word processing obviously belongs. This finding also supports Saparniene (2005) who investigated socio-psychological and socio-educational factors influencing achievement in computer literacy and found that cognitive disposition adopted by the student and learning attitudes displayed by him or her are inner psychic states that strongly influence behaviour.

The second hypothesis stated that there is no significant relative contribution of cognitive disposition, self-determination, and attitude to keyboarding to the prediction of academic achievement in Word Processing among Colleges of Education students in South-West, Nigeria. A test of this hypothesis led to its rejection and the upholding of the alternative hypothesis which affirmed that there is a significant relative contribution of cognitive disposition, self-determination, and attitude to keyboarding to the prediction of academic achievement in Word Processing among College of Education students in South-West, Nigeria. This means that each of cognitive disposition, self-determination, and attitude to keyboarding was a significant predictor of achievement in Word Processing. However, of the three variables, cognitive disposition was the most potent predictor, followed by self-determination and attitude to keyboarding in that order. The overriding effect of cognitive disposition could be due to the fact that it was directly involved in processing information and acquiring knowledge of word processing unlike self-determination and attitudinal disposition which were not directly involved but were only aids to learning. The stronger contribution of self-determination to the prediction of achievement in word processing than attitudinal disposition could be due to the fact that a student who is self-determined to master a skill or acquire knowledge would have positive attitudes toward the task at hand. In other words, positive attitudinal disposition is included in self-determination. This finding was in line with the results of Adeyanju (1998) and Onunkun (2009) who separately found that cognitive disposition have significant effect on learning outcomes and achievement of students.

Contributions to Knowledge

This study has provided information about cognitive disposition, self-determination, and attitude to keyboarding to the prediction of academic achievement in word processing among College of

Education students in South-West, Nigeria. By engaging each of these variables, this research lays out some practical issues that students' academic achievement in word processing in Colleges of Education, South-West, Nigeria. The following are the specific contributions of this study:

1. The study provided empirical evidence and knowledge that cognitive disposition, self-determination, and attitude to keyboarding jointly and relatively influence academic achievement in word processing among College of Education students in South-West, Nigeria.
2. This study provides a knowledge-base that can aid students' academic achievement in word processing in College of Education.

CONCLUSION

Word processing is a universally used software with which business education students are expected to be familiar. An investigation of the factors influencing achievement in Word Processing is therefore a worthwhile venture. Based on the findings of this study, it is concluded that there was significant composite and relative contribution of cognitive disposition, self-determination, and attitude to keyboarding to the prediction of academic achievement in Word Processing for male and female is established.

Recommendations

Based on the findings and conclusion of this study, the following recommendations are made:

- i. Business Education Lecturers in Colleges of Education should identify those strong cognitive disposition patterns in their classes and utilize fitting approaches to accommodate individual cognitive disposition preferences in their pedagogy.
- ii. Educators should continually promote self-determination via both intrinsic and extrinsic motivation by helping learners to focus not only on the extrinsic rewards they gain after they accomplish tasks but to also inculcate the intrinsic value in their learning of Word Processing.
- iii. Educators should encourage positive attitudinal disposition toward keyboarding in learners by making keyboarding instruction compelling. They should foster feelings of competence in their students who should be given freedom and responsibility to act on their own at times. This can enable the learners to feel that their behaviour is self-determined.
- iv. Workshops should be organized by curriculum designers and education stakeholders for all Business Education and Word Processing teachers to brainstorm and emphasize on the use of appropriate cognitive dispositions as a means of achieving meaningful learning and better academic achievement in Word Processing.

Research Implications

The implications of this research work is that simultaneously fostering positive cognitive disposition and favourable attitude to keyboarding as well as encouraging the spirit of self-determination in students can go a long way to improve their achievement in word processing. Furthermore, a self-determined student is highly intrinsically motivated and not easily frustrated by difficulties or

failures in the course of learning and mastering Word Processing skills. His or her self-determination keeps him or her going and persistently endeavouring to tackle any obstacle in the learning process. Finally, performing well in any area of human endeavour, not just in word processing alone, demands favourable attitudes toward the tasks involved on the part of the individual.

Suggestion for Further Study

Based on the findings, the following suggestions were made for further research

- i. This study can be replicated in another geographical area or another problem aspect in word processing at a higher class in Colleges of Education, Polytechnics and other tertiary educational institutions.
- ii. An attempt should be made to study the effect of attitudinal disposition towards word processing on students' achievement.

References

- Adeyanju, G. A. (1998). The relationships among cognitive disposition. *ABUJER*, 3(1), 64-70.
- Adomnik, J. G. (2012). The Effects of self-determination, identification with school and school climate on middle school students. Aspirations for future Education. *Unpublished M.Ed.* The University of Alabama, Tuscaloosa, Alabama.
- Akume, B.C. (2002). Business Education and Industry: Competencies Required of NCE Business Education Graduates for Effective Performance in the work place. *Business Education Journal* 3(5), 115-122.
- Federal Government of Nigeria (2013), National Policy on Education, Lagos: NERDC.
- JU, S., Zeng, W., & Landmark, L. J. (2017). Self-determination in post secondary Education. A review in *Journal of Duability Policy Studies*, Vol. 28 (3); <https://doi.org/10.1177/0022219412469688>.
- Labo-Popoola, S. O. (2012). Teachers' and School variables as determinations of students' achievement in comprehension and summary writing aspect of English Language. *A Ph.D Thesis*. Department of Teacher Education, University of Ibadan.
- Odim, O. O., Anastasia I. A., & Solomon, A. A. (2018). Effect of Strikes on Management and Planning of Educational Activities in Nigerian Universities. *Global Journal of Educational Research*, 17, 1-8.
- Olupayimo, E. O., & Ademiluyi, L. F. (2022). Virtual Teaching and Learning of Keyboarding Skills in Post Covid 19 Era: The Perception of Business Educators. *KWASU International Journal of Education*, 4(1), 201-208.
- Onunkun, O. (2009). Continuous assessment and cognitive style as determinants of academic achievement of senior secondary school students in mathematics. *A Masters Degree Dissertation*, Olabisi Onabanjo University, Ago-Iwoye.

- Saparniene, D. (2005). Students' attitude towards computer: Statistical types and their relationship with computer literacy. *A Paper Presented at the European Conference on Educational Research*, University College, Dublin, 7-10
- Saunders, J. M. (2014). The Flipped classroom. Its effect on students' academic achievement and critical thinking skills in high school mathematics (Doctoral Dissertations, Liberty University).
- Tella, A. (2008). Relationship among demographic variables and pupils' school achievement in analytic reasoning. *Electronic Journal of Research in Educational Psychology*, 6(3), 709-728.
- Veresova, M., & Mala, D. (2016). Attitude towards school and learning and Academic Achievement of Adolescents in the European Proceedings of Social and Behavioral sciences ISSN: 2357-1330.

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