



EFFECT OF E-COUNSELLING ON CAREER DEVELOPMENT AMONG UNDERGRADUATE STUDENTS OF ENUGU STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY (ESUT) NIGERIA

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Abstract:

The researchers investigated the effect of e-counselling on career development among undergraduate students of Enugu State University of Science and Technology (ESUT), Nigeria. The pre-test, post-test, and control group quasi-experimental design was adopted for this study. Two research questions and two null hypothesis tested at a 0.05 level of significance guided the study. The population of this study comprised, 7,032 of 400 level students in Enugu State University of Science and Technology (ESUT), Nigeria. The researcher sampled 58 students for the study. The sampling techniques employed are purposive and cluster. Two instruments developed by the researcher were used for data collection, namely Students Career Identification Scale (SCIS) and Career Detecting Scale (CDS). The instruments were validated by experts in departments of measurement and valuation as well as Guidance and Counselling. The reliability of the instruments was ascertained through the test-retest method using Cronbach Alpha statistics which yielded reliability coefficients of 0.81 and 0.83 for SCIS and CDS respectively. Data collected were analyzed using mean score and standard deviation to answer the research questions. The hypothesis was tested using the analysis of covariance (ANCOVA) at a 5% level of significance. The findings revealed among others that ECM is significantly effective in career development among undergraduates at post-test and follow-up test from the above findings, it was recommended among others, that counsellors should make use of e-counselling in promoting career development among undergraduate students for higher productivity.

Keywords: counselling, e-counselling, career development, information and communication technology (ICT)

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1. Introduction

Societal complexities and toxic environmental influence (toxic atmosphere) in this 21st century demand the need for ICT skills and knowledge. Basically, Nigeria's education system cannot be ruled out to this effect hence the need to update and upgrade our academic environment. The value of digital technology in education is inevitable (Chigbu, Suleh, Grace & Mokwelu, 2022). The positive outcome of technology towards education cannot be quantified in any sector of the economy as education is the basic foundation of the all-around development of an individual. Regrettably, Nigeria identified the use of ICT skills and knowledge as a key challenge facing the education sector. Counsellors and students are technically incapable of using ICT tools and internet resources to facilitate counselling services. It is common that some students to have internet difficulties that affect their academic work (Kolog, Sutinen, Ruoho, 2014). Thus, the rate of unprofessionalism is alarming, leading to lower productivity and performance, mediocrity, lack of employability and global incompetence. Unprofessionalism is as a result of poor career development.

Through career development, counsellors ensure adequate academic development, career growth in personal social development which enable students to lead a productive rewarding life (Akuezulo, Bala, Chigbu & Isreal, 2022). Despite counselling efforts to boost student academic performance, there is still an alarming rate of unprofessionalism among our graduates. Unprofessionalism as a result of poor career development lead to uncertainty of future career path, wrong career choice, the prevalence of mediocrity, lack of flexibility, causes conflict, affect work performance, damage workplace reputation, mental lapses, and increased stress among others. Stress may emerge from faulty learning, unrealistic assumptions and operating on inadequate or incorrect information (Mkpoikanke, Ibiwari, Elizabeth, Chigbu & Favour, 2021). When a lack of professionalism breeds all these negative attributes, there will be limitations in the total productivity of the economy. Therefore, competitiveness and employability may not be sustained. Nonetheless, a graduate cannot be employable without possessing competitive skills for sustenance and adaptability (Chigbu & Sanusi, 2022). Hence, for a graduate to sustain employability and competitiveness in the global market, guidance counsellors roles and responsiveness may help in such achievement hence the need for career development.

Career development is an academic orientation comprised of individual aspiration towards the accomplishment of his academic pursuit and overall training for competitiveness and productivity. Academic orientation is an attitude or behaviour, an individual put up in pursuing a set goal in school, it is the value or worth one places on academic success or failure (Dorathy, Lilian, Damian, Effiong, Theresa, Chigbu, Ifelunwa, Patience, Idoko & Chimezie, 2023). Career development sometimes called professional development refers to human development for matching aptitude, ability and potential with an innate personality of an individual (Grace, Benedicta, Chima, Chigbu & Uzoekwe, 2022). It is observed that the absence of job commitment is as a result

of poor career development (Chigbu, Ngwaka & Onu, 2020), thus, lack of commitment will affect the totality of education development hence leading to poor national development. If career development is not sustained, achievement and enhancement of student's desirable behaviour will be sidelined. Therefore, Chigbu, Nwobi, Ngwaka and Mokwelu, (2021) state the need to overcome these hindrances. According to Chigbu et al. (2021), counsellors should be very active and dedicated in exercising their duties through provision of appropriate assistance to the students to better understanding and accepting themselves, their personalities, endowment, attitude and worth as unique individuals, equipping them with all the latest career trends and improve personal development. A study revealed that some students did not have a clear career goal and also find it difficult to link up their current studies to their career choice (Lolog, et al., 2014). Career development may not be achieved without counselling services.

Counselling is an interactive process which facilitates a meaningful understanding of self and the environment for personal and career development (Chigbu, Oguzie, Obi & Ngwaka in Chigbu, Oguzie, Nwosu, Ngwaka & Onu, 2022). Counselling cannot be complete without providing the necessary information needed for individuals to build up their potential, abilities, aptitude, personalities and skills which would in turn fetch a good career choice. Counselling is aimed at helping individuals modify and reorganize their mindset positively towards more worthwhile and productive self-concept and dependability (Chigbu, Ngwaka, & Grace, 2020). Counselling services are expected to help individual students to access and derive benefits from career development and self-actualization (Kolog et al., 2014). Thus, to achieve such a positive result, there is a need for diversification of counselling methods to accommodate all clients irrespective of their location. Counselling services are achieved through several uses of therapy, principles, techniques and skills. An example of such counselling skill is e-counselling.

E-counselling is also known as online counselling, cybertherapy, e-therapy, teletherapy (Richard & Vigano in Zaida, Wan, Ifusni, 2020). Zamani (2009) identified email, chats, video conferencing and text messaging or short message system (SMS) as widely used e-counselling tools in counselling sessions. E-counselling is defined as the delivery of therapeutic interventions, where communication between a trained professional counsellor and clients is through online technologies at two different locations without meeting face to face (Zainudum & Yusop, 2018). However, because of the advent of technology and internet, counselling services had been transformed into e-counselling instead of face-to-face practices (Abu Shahim, Shaudi, Zainudin, Kamarul, 2021). E-counselling is a modality introduced into a counselling process which makes counselling effective and efficient with less stress and convenience. Though e-counselling may be stressful especially when the counsellor is not internet exposed. It can also be conducive and accommodating for the clients especially when the client is not free with face-to-face contact. The effectiveness of the counselling process is in question; this is because most counselling skills qualities and techniques are absent, for instance, the use of body language in showing empathy and genuineness. Though e-counselling helps clients to eliminate their counselling stigmatization problems thus making counselling

more effective. Awuni (2014) evaluation indicates that the hope game helped students in career planning and development through the hope-centred model. In affirmation, the benefit of e-counselling practice allows school counsellors to handle student problem at their convenience as there is no time limitations, accommodation and location.

Regrettably, counsellors find it difficult to use technologies. Fang, Tarshis, McInroy & Mishna (2017) laments that counsellors lack confidence in technological knowledge and skills. On this premise, counsellors should be given the opportunity through seminars and workshops to improve upon the use of ICT in their counselling activities. Apart from counsellors' incompetency in the use of ICT, other challenging factors are likely to hinder the use of e-counselling such as poor power supply, financial constraints and limited internet services. Gbemisola (2018) concludes that information and communication technology (ICT) needs to be fully incorporated into guidance and counselling practice. The use of digital treatment in counselling process is numerous; they include bias modification as a potential treatment for depression, virtual reality-based exposure in the treatment of anxiety disorders, use of robotic technology to improve social interaction in autism spectrum disorder and dementia (Kick in Chigbu, Suleh, Grace & Mokwelu, 2022) and the use of computer game to block the reconsolidation of intrusive traumatic memories (Jame, 2015). Learner's imaginations are also simulated with the use of role-playing (games) (Jaris & Gangitano, 2007). Counselling is one of the most effective strategies for the learning and development of career and life management (Kolog et al., 2014). It is very convincing to assert that the use of digital technology is inevitable. Thus, ICT must be explored widely to provide a good strategy to help students in counselling delivery (Obi, et al., 2012). Zaida et al. (2020) indicate that school counsellors were receptive to offer adequate and professional development, technical training and e-counselling facilities.

Empirically, Kolog, et al. (2014) revealed that students had little knowledge about the use of ICT in counselling and only used email as the only digital tool for counselling delivery. In consonance, Foon, Zainudin, Yusop, Norhayati & Athman (2020) state that a lack of competence in technical skill hinders the use of e-counselling. This simply means that counsellors are now facing challenges to provide innovative ways for proper communication among clients. School counsellors experience challenges in learning new software, operational procedure and managing administrative issues (Fang et al. 2017). Cipoletta & Mocellin (2017) emphasize on the need for school counsellors to incorporate e-counselling into counselling modalities with advanced technological internet usage among students. Foon et al. (2020) assert instilling competency and confidence in e-counselling and technical skills is the key to encourage and propagate the use of e-counselling among school counsellors. Though Abu Shalin et al. (2021) insist that online counselling has been in use since the advent of internet. Makinde (2021) buttresses on the need for constant use of e-counselling as it assists students and lecturers in achieving quality and sustainable blended learning. However, Kraus and Jack, Larsen, Chester and Glass, Robson and Robson in Abu Shalin et al. (2021) enumerate the importance of e-counselling as providing consultancy services for those in need, to identify and

understand characteristics of capabilities and individual preparation skills, offering opportunities for counselling services for those who stay in remote areas, especially for special need clients and client who do not want to be identified by others. Thus, clients can maintain their privacy by taking their therapy from home, client can also take advantage of the time factor to their benefit. The counselling session can be altered, postponed or cancelled easily taking into cognizance of counsellors by the client (Vande, 2015). Abu Shalin et al. (2021) conclude that the emergence of e-counselling had provided better opportunities to society through counselling services because it consumes less time, places the session under convenience, and reduces the tension and bias in sharing the problem face-to-face with the counsellor.

Nonetheless, e-counselling and career development seem to be interwoven as both variables may likely have a negative or positive effect on each other especially when one of it is neglected. Thus, e-counselling may be hindered when career development is not maximized. Career development may also be neglected when the e-counselling technique is not sufficient. Both e-counselling and career development seem to depend on each other for optimal functionality. Zaida (2020) assert that e-counselling was often affected negatively when there is a lacuna in the training and professional development of counsellors. This simply means that school counsellors are incompetent when they fail to update themselves, hence, the use of e-counselling may lead to career development. Therefore, this study was conducted to examine the effect of e-counselling on career development among undergraduate students of Enugu State University of Science and Technology (ESUT), Nigeria.

2. Purpose of the Study

The main purpose of this study is to examine the effect of e-counselling on the career development of undergraduate students of Enugu State University of Science and Technology (ESUT), Nigeria. Specifically, the study determined:

- 1) The effect of e-counselling on the career development of undergraduate students when compared with those in the control group using their pre-test and post-test periods.
- 2) The retention of the effect of the e-counselling method (ECM) on career development among undergraduate students when compared with those in the control group using follow-up test scores.

2.1 Research Questions

The following research questions were posed to guide this study:

- 1) What is the effect of the e-counselling method (ECM) on the career development of undergraduate students when compared with those in the control group using their pre-test and post-test periods?

- 2) What is the retention of the effect of the e-counselling method (ECM) on career development among undergraduate students when compared with those in the control group using follow-up test scores?

2.2 Hypotheses

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

Ho₁: There is no significant difference between the mean scores of the students treated with e-counselling method (ECM) and control group at pre-test and post-test periods.

Ho₂: There is no significant difference between the mean score of the students treated with e-counselling method (ECM) and control group at follow-up-assessment.

3. Methodology

This study adopted the pretest-posttest control group quasi-experimental design. Quasi experiment is a study where a random assignment of participants to experimental and control groups is not possible (Nworgwu, 2015). The population of this study comprised 7,032 of 400 level students in Enugu State University of Science and Technology (ESUT), Nigeria. The researchers sampled 50 students using purposive and cluster sampling techniques. Instruments used for this study were Student's Career Identification Scale (SCIS) and Career Dictating Scale (CDS) which were adequately validated and found to be reliable at 0.81 and 0.83 coefficients respectively using Cronbach Alpha statistics. The student's career identification scale (SCIS) was used to identify students that are confused about their choice of career and development during the pre-test. The experimental treatment lasted for six weeks using 90 minutes pre session. The experimental group was treated with the e-counselling method through the means of film watching, webcam, and telephone among others, while the control group received direct physical counselling but not on career development. The SCIS was re-administered to the experimental and the control groups after the end of the treatment. The researchers administered a Career Dictating Scale (CDS) as a post-test follow-up test after four weeks of the last treatment. This (CDS) assessment was to ascertain the retention of the effect of the e-counselling method at an interval of 4 weeks. Data collected from the experimental group and control group were given good testing conditions of comparison and analyzed using mean scores and standard deviation to answer the research questions. The hypotheses were tested using analysis of covariance (ANCOVA) at a 5% level of significance.

4. Results

Table 1 shows the mean scores of the students treated with ECM and control group pre-test and post-test periods. The table indicated that on the pre-test, students under ECM and control groups had mean scores of 66.24 and 66.74 respectively but on the post-test, their mean scores were 25.44 and 66.04 respectively. With this, it shows that the e-

counselling method is effective in the promotion of career development among undergraduates.

Table 1: Mean scores of the students treated with e-counselling method (ECM) and control group at pre-test and post-test periods

Test		Pre-test		Post-test	
Group	N	X	S	X	S
ECM	25	66.24	3.71	25.44	2.00
Control	25	66.74	3.29	66.04	3.58

Table 2 shows the mean scores of students treated with ECM and the control group during the follow-up assessment period. The table indicated that on the pre-test, students under ECM and the control group had mean scores of 66.24 and 66.74 respectively but on the follow-up test, their mean scores were 27.13 and 67.03, respectively. With this, the conclusion is that the e-counselling method was still effective in the promotion of career development among undergraduates after four weeks of the treatment (follow-up assessment period).

Table 2: Mean scores of students treated with ECM and control group at follow-up assessment period

Test		Pre-Test		Follow-up-test	
Group	N	X	S	X	S
ECM	25	66.24	3.71	27.13	2.82
Control	25	66.74	3.29	67.03	3.86

Table 3 shows that the f-calculated is 2632.501. The table also indicated that sig. value of the f-calculated is .000 which is less than the significance level of 0.05. The conclusion from here is to reject the null hypothesis and deduce that there is a significant difference between the mean scores of the students treated with ECM and the control group test and post-test periods.

Table 3: Analysis of Covariance (ANCOVA) test for Hypothesis 1

Test of Between-Subjects Effects					
Dependent Variable: Post-Test					
Source	Types III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	22621.896 ^a	2	11310.948	1331.171	.000
Intercept	250.195	1	260.295	30.166	.000
Pre-Test	7.395	1	7.395	.858	.344
Treatments	23423.550	1	23423.550	2632.501	.000
Error	481.726	47	8.629		
Total	156815.000	50			
Corrected Total	24113.622	49			

a. R Squared = .971 (Adjusted R Squared = .970).

Table 4 shows that the f-calculated is 2144.010. The table also indicated that sig. value of the f-calculated is .000 which is less than the significance level of 0.05. Thus, the second null hypothesis is rejected. Therefore, there is a significant difference between the mean scores of the students treated with ECM and the control group during the follow-up assessment period.

Table 4: Analysis of Covariance (ANCOVA) test for Hypothesis 3

Test of Between-Subjects Effects					
Dependent Variable: Follow-up-Test					
Source	Types III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	22848.022 ^a	2	11424.011	1133.425	.000
Intercept	115.312	1	115.312	10.456	.002
Pre-Test	77.761	1	77.761	7.438	.008
Treatments	22451.355	1	22451.355	2144.010	.000
Error	494.451	47	10448		
Total	174044.000	50			
Corrected Total	23443.472	49			

a. R Squared = .965 (Adjusted R Squared = .964).

5. Discussion of the Findings

The findings of this study revealed that e-counselling is effective in the promotion of career development among undergraduate students. When tested, the finding proved significant. This implies that when comparing the control group and the e-counselling group, it shows that the e-counselling practice was effective in promoting career development among undergraduate students. This finding is in line with Abu Shihim et al. (2021) findings which revealed that e-counselling provided better opportunities to society through counselling services. In consonance, Cipolletta, et al. (2017) emphasized on the need for school counsellors to incorporate e-counselling into counselling modalities with advanced technical internet usage among students. Incorporating e-counselling into the counselling modality is an essential step taken to properly sensitize the counsellors and society at large to the need for ICT awareness for easy accessibility and convenience, hence the need for e-counselling service.

Another finding of this study revealed that e-counselling skill was still effective in the promotion of career development among students after four weeks of the treatment (follow-up assessment period). When tested, the findings proved significant. The finding are in line with Chigbu et al. (2022) who revealed that counselling is an interactive process which facilitates a meaningful understanding of self and environment for personal and career development. Rick cited by Chigbu et al. (2022) asserts that e-counselling is a technique used to modify some undesirable behaviour like depression, anxiety and also improve social interaction in autism spectrum disorder and dementia. Vande (2016) considers e-counselling effective to both parties (counsellors and clients) as without it,

many students will suffer from depression because they find it difficult to meet counsellors face to face.

6. Conclusion

The study concluded that e-counselling is an effective method which helps in the promotion of career development among undergraduate students even four weeks after the experimental treatment.

6.1 Recommendations

Based on the findings of this study, the following recommendations were made;

- 1) Counsellors should make use of e-counselling in the promotion of career development among undergraduate students.
- 2) University administrators should organize and sponsor school counsellors in workshops, exhibitions, seminars and conferences on a regular basis in order to update their ICT knowledge, expressing and drilling them on e-counselling modality.
- 3) The school authorities and Government should provide adequate and necessary facilities to enhance technical know-how related to the procurement of computers and school internet for easy accessibility of counselling practice.

Conflict of Interest Statement

The author declares no conflicts of interest.

About the Author

Chigbu, Eberechukwu Francisca occupied a position of Lecturer II with PhD in Guidance and Counselling with research interests in counselling psychology and behavioural problems.

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