

Full Length Research Paper

The effects of reciprocal peer tutoring on the enhancement of career decision making process among secondary school adolescents

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The study investigated the effects of reciprocal peer tutoring in the enhancement of career decision making process among secondary school adolescent students. The interaction of sex with treatment on career decision making process of secondary school adolescent students was also investigated. 120 students from two co-educational secondary schools in Effurun, Delta State Nigeria participated in the study. A 40 item, 5 point Likert scale (Career Decision Making Process Scale) was the instrument used to obtain information from the respondents on the effect of the treatment programme on their career decision making process. Results indicate that subjects in the treatment group benefited significantly from the treatment programme. Consequently there was a significant difference in their career decision making process at post-test. Furthermore, results also indicated that there was no significant effect of sex on treatment outcome at post-test. This meant that sex had no significant impact on the career decision making process of subjects in the treatment group at post-test. This study therefore provides evidence that reciprocal peer tutoring is an effective intervention strategy for enhancing the career decision making process of secondary school adolescents. It also recommended that reciprocal peer tutoring be introduced into the school system because of the immense benefits to the students/

Key words: Reciprocal Peer Tutoring, Career Decision Making, Secondary School Adolescents

INTRODUCTION

People generally make their first career related decisions during adolescence. Such decisions usually have life long consequences for the individual's vocational future and psychological well-being.

The skill for making appropriate career decisions is very central to the psychological adjustment of the adolescent. Although some of the adolescents who are required to make these early career decisions do so with relative ease, many others face difficulties before or during the actual process of decision- making (Scott et al., 1995). These difficulties may lead them to transfer the responsibility of making the decision to someone else, delay, or even avoid making a decision. This difficulty may have an effect on the way they will deal with future career decisions

Gati and Soka (2001) described those difficulties as a deviation from the model of an "ideal career decision maker". According to them, the ideal career decision maker is a person who is aware of the need to make a career decision, is willing to make such a decision, and is

capable of making the right decision. This is a decision that is based on the appropriate process and is compatible with the individual's goals and resources. Any deviation from the model of the ideal career decision maker is regarded as a potential difficulty that may affect the individual's decision in one of the following ways: (a) by preventing the individual from making a career decision or (b) by leading to a less than optimal career decision or unrealistic career decision.

Peer tutoring have been found to be very effective within the school system (Egbockuku and Obiunu, 2006). Research findings in foreign literature indicates that peer tutoring is effective in enhancing attitude and behaviour of adolescent students (Hsiao-Chen, 2003; Ladyshevsky, 2001). Research evidence indicates that educational issues and future vocational decisions are of great importance to adolescents (Violato and Holden, 1988; Friedman, 1991; Egbochuku, 1997). The significant developmental process that takes place during adolescence results in improved cognitive abilities, which

enhance decision-making capabilities.

Reciprocal peer tutoring is a form of cooperative learning, which has been found to be an effective technique for increasing students' academic achievement (Sherman, 1991; Slavin, 1991). Conceptually, peer tutoring is similar to many activities ranging from the informal encounters of play to the most complex activities of cooperation in which people help each other and learn by doing so. This process transforms learning from a private to a social activity by involving learners in the responsibility for their own learning and that of others.

Researches have shown that both tutors and tutees gain immensely from participating in reciprocal peer tutoring (Slavin, 1996; Forman, 1994; Griffin and Griffin, 1997). In this process, students function reciprocally as both tutor and tutee. This dual role is beneficial because it enables students to gain from both the preparation and the instruction in which tutors engage and from the instructions that tutees receive (Griffin and Griffin, 1997). This kind of peer tutoring will enhance the career decision-making of adolescents. Peer interaction has been known to be very influential in the development of behaviour patterns. Because of the forgoing, Gartner and Riessmann (1994) recommended that the principles of peer tutoring/counselling should be applied in schools since research evidence has shown that peer interaction impacts significantly on behaviour pattern and attitude of adolescents.

One of the advantages of peer support programmes is that it provides a non judgemental acceptance, care, support, and it provides opportunities to give and receive from others, and it also creates a non competitive empowering environment (Egbochuku and Obiunu, 2006). What this simply means is that these advantages encourage and creates the opportunity for peers to influence the development of attitudes and behaviours in ways that are positive. If peer tutoring can influence behaviour change, then it will most likely enhance career decision making process among secondary school adolescents.

Within the Nigerian context, the goal of education is the acquisition of knowledge and skills that will prepare the individual to fulfil his or her own role in the society. Such knowledge and skills are provided by the teachers, parents, and significant others. The expectation is that the students will be taught by an older adult. The concept of peer tutoring and peer counselling is relatively new to the Nigerian school system. There is scarcity of literature as only very few researches have been carried in this area. That not withstanding, it is an acceptable fact that peers learn more from each other than from parents and teachers (Gartner and Riessmann, 1998). The advantages of this group dynamics out weight the disadvantages. Researches in the field of counselling psychology with special emphasis on intervention strategies for helping children have proven that the peer group dynamics in counselling is very helpful (Brigman

and Campbell, 2003; Obiunu, 2006) Such group dynamics either in the forms of peer tutoring or peer counselling, have participants ranging from 3 to 50 or more in a particular group. The assumption is that every member of the group will be given an opportunity to play a significant role in the peer interaction process. The interaction within the group is very helpful for the developmental process of the child.

Secondary school adolescents face a wide range of problems. One of such problems is having to make a career decision. The adolescent period is always referred to as a moment of "storm and stress". This is a trying time for them as they make effort to grapple with responsibilities that are expected of them during this period. The developmental tasks during this stage are very often difficult and challenging. One of such developmental task is the need to make a career decision. There are so many factors that make the task of making a career decision very difficult for the secondary school adolescent student. One of such factors is the unemployment situation in the country today. In a world of uncertainty as ours where adolescents see adults who constantly loose their jobs with no hope of getting them replaced immediately, and the resultant struggle to make ends meet as they strive to meet the rising cost of living, makes the task of making a career decision problematic. The problem that emanates from the above situation is the question as to which career can they choose that will guarantee employment. This way of thinking has been observed to take them away from their primary area of interest and competence.

In spite of the problem above, the average secondary school adolescent still needs to make a career decision. Very often they make career choices ignorantly on the bases of wrong premises that may arise from the aforementioned problem. Inadequate information about the world of works can also contribute to making the career decision making process difficult. This situation creates anxiety, fear and lack of motivation to engage in the career decision making process. However, researches have shown that this situation can be improved upon through the use of intervention techniques.

This study therefore used reciprocal peer tutoring in enhancing the career decision making process of secondary school adolescents. It is hoped that the results of this study will provide recommendations that will facilitate the implementation of reciprocal peer tutoring in the school system.

Hypothesis

The following null hypotheses were formulated to guide this study.

There will be no significant difference in the career decision making process of secondary school adolescents in experimental and control group at post-test. There will be no significant difference in the career

Table 1. Distribution of subjects by treatment by Sex

Sex	Reciprocal Peer Tutoring	Control Group	Total
Male	29	26	55
Female	31	34	65
Total	60	60	120

decision making process of male and female secondary school adolescents in experimental and control group at post-test.

METHODOLOGY

This study is experimental in nature. A pre-test, post-test control group design was used for the study. The aim of this approach was to observe the effects of reciprocal peer tutoring on the career decision making process of secondary school adolescent students. The variables of this study are, reciprocal peer tutoring and control (manipulated variables), sex (intervening variable), and enhancement of career decision making process (criterion variable). The population of this study consist of all Government owned Senior Secondary Schools in Effurun, Delta State. The Government owned Secondary Schools were chosen because it is expected that will counselling facilities as recommended by the National Policy on Education. There are about 15 Government owned Senior Secondary Schools in Effurun. There are single sex and co-educational schools with population of students ranging from 200 to 3,000.

Multistage random sampling was used for the study to select two schools. The sample consisted of 120 Senior Secondary School II students (male and female) from the two Senior Secondary Schools. Simple random was used to select one intact class each from SSII classes in the two Senior Schools. SSII classes were chosen because it is at that class that pre-vocational choices in the forms of subject combination which relates to primary areas of career choice are made. While students in SSI are new to the Senior Secondary School, students in SSIII are in the certificate class where they have already made career choices are busy with preparations for their final external examination.

The "Career Decision Making Scale" was used for the study. This instrument was designed by the researcher for the purpose of this research. The instrument consisted of 40 items. The instrument used a 5 point likert scale which ranged from "most like me" to "most not like me". To determine the reliability of the instrument, the split half reliability coefficient method which is a measure of internal consistency was used. The questionnaire was administered to 30 respondents at the Delta State Demonstration Secondary School, Abraka. The questionnaire was separated into odd and even numbers and administered to the selected students. To establish the reliability, the scores from the two halves were correlated using the Pearson-Product Moment Correlation Coefficient (r) which gave a value of 0.67. This was then used in determining the relationship between the two halves of paired scores. Since the reliability coefficient was determined by correlating the scores of the two halves test, the Spearman Brown Prophecy formula was then applied to establish the reliability of the scores. The reliability coefficient for the whole instrument was then found to be 0.77. This gave the indication that the instrument was reliable for the study. The treatment package, "Reciprocal Peer Tutoring" was used in the treatment programme to enhance the career decision making process of Senior Secondary School adolescent students. The control group of students received a non specific treatment programme, which was treated as a placebo. The programme

which was in social studies was not traditionally part of the career decision making preparatory programme.

Treatment procedures

There were two set of subjects, the experimental group and the control group. From the table1 of distribution of subjects by treatment and by sex, the total male students for the treatment were 55, while the female was 65. Furthermore, both groups had a total no of 60 students each.

The treatment programme for the experiment was designed to enhance the career decision making process of secondary school adolescents. While the control group had lessons in social studies that addressed issues of citizenship and was taught by the class teachers in the schools selected for the study. The treatment programme had ten sessions that was spread over a period of 10 weeks. Each session lasted for a period of about 40 to 50 min.

There was a pre-test of the instrument for the study and a randomized placement of students into treatment groups. Also the peer tutors were randomly selected each week and prepared for the next encounter. The peer tutors acted as facilitators for each of the sessions. The treatment programmes studied different careers.

In relation to the careers studied, the programme examined the requirements and conditions of services in terms of wage, duration of working time, working environment, sex issues in the work place, preferred entry age, recreational activities that may be related to the occupations being discussed and physical ability and attitude. Also the need to make a career plan. The careers studied were derived from the Occupation Clusters Preference Scale (Obiunu, 2003). The five clusters are; persuasive, medical, scientific, teaching, and engineering. The programme also examined career decision making skills and the need to make a career decision.

The data collected in this study were analysed using the Statistical Package for Social Science (SPSS). The analysis of variance (ANOVA) using presented scores was used to test for significant interactive effect of treatment groups and treatment outcomes.

In cases where we had significant F values, the post hoc analysis was used to determine the pattern and nature of interactive effects and main effects of the independent variables as the case may be.

Table 2. Distribution of mean post-test scores between subject effects.

Source	Type III sum of squares	Df	Mean Square	F	Sig
Treatment	4701.811	1	2350.906	12.753*	.000
Error	32628.917	118	184.344		
Total	1125753.000	120			
Corrected Total	37330.728	119			

Table 3. Distribution of post-test mean scores of Group by Sex

Sex	Reciprocal Peer Tutoring	Control Group	Total
Male	86.64	70.81	76.95
Female	83.19	73.35	78.44
Total	84.56	72.25	77.76

RESULTS

To identify the effects of treatment on the enhancement of career decision making process among secondary school adolescents, the following hypotheses were tested at .05 level of significance.

HO 1. There will be no significant difference in the career decision making process of secondary school adolescents in experimental and control group at post-test.

Furthermore, analysis of data in Table 2 showed that the F -ratio for the effect of the treatment groups was found to be $F = 12.753$, with $df = (2,180)$. This was significant at $p < .05$. The above results indicate that there is a significant difference in the career decision-making of adolescents in the various treatment groups at post-test. Hypothesis 1 is therefore rejected.

HO 2: There will be no significant difference in the career decision making process of male and female secondary school adolescents in experimental and control group at post-test.

Table 3 indicates that male in RPT had a mean score of 86.64 and control had a mean score of 70.81. The table also shows that for female in RPT, they had a mean score of 83.19, while those in control had a mean score of 73.35. The total mean score for subjects in treatment groups for male is 76.95, while the total mean score for subjects in treatment groups for female is 78.44. The implication of the above result is that there is no significant difference in the career decision-making of male and female adolescents in the treatment groups.

Further analysis of data in Table 4 showed the F-ratio for the effect of sex on treatment outcome was found to be $F = .911$, $df (1, 180)$. This was not to be significant at $p > .05$. The result above shows that sex has no effect on the career decision-making of adolescents in the various treatment groups. Hypothesis 4, which stated that

there will be no significant difference between male and female adolescent students in their career decision-making of secondary school adolescents at post-test is therefore accepted. The conclusion therefore is that there is no significant difference between male and female adolescent students in their career decision-making.

DISCUSSION

The findings of this study indicate that reciprocal peer tutoring has significant impact on the enhancement of career decision making among secondary school adolescents. This finding agrees with the contributions of Brigman and Campbell (2003), Obiunu (2006) and Egbochuku and Obiunu (2006), namely that the peer group dynamics in counselling is very helpful. The implication here is that peers have significant positive impact on behaviour patterns if they are well prepared to engage each other in a reciprocal peer tutoring setting.

Reciprocal peer tutoring (RPT), which is a cooperative learning process, has been used severally by different researchers to improve academic skills in both junior and high school around the world (Gartner and Riessman,, 1994; Kohler and Greenwood 1990). Also the studies of Jerkins and Jerkins (1985); Magolda and Rogers (1987), and Slavin (1991), all support the above position that RPT impacts significantly on those who participate in it. Besides the above research evidence, the studies of Fantuzzo et al. (1992) provide evidence for positive effect of RPT.

These empirical reports support the findings of this study that RPT impacts significantly on the career decision-making of adolescent students. The reasons that have been advanced by other researchers, which this study also share include among others the following: That tutors demonstrate a sense of commitment, show great initiative, involves all students, provides opportunity for positive and productive peer interaction, and increased communication skills. Other advantages are knowledge is gained in the process, development of a sense of responsibility, and noticeable cognitive gains. (Topping, et al. 2006)

All of the above reasons are responsible for the relative effectiveness of RPT for career decision-making. What all of the above facts emphasise is that peers have a high capacity to impact significantly on one another (Griffin and Griffin, 1997), when the enabling environment is created for them to interact. Reciprocal peer tutoring

Table 4. 2-way ANOVA showing interactive effects of treatment and sex at post-test

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Treatment	4866.395	1	2433.198	13.289	.000
Sex	166.878	1	166.878	.911	.341
2-Way Interaction Treatment*Sex					
Error	604.970	2	302.485	1.652	.195
Total	31859.789	117	183.102		
Corrected Total	1125753.000	120			
	37330.728	119			

therefore can be a very strong tool that can be used to improve students ability to make appropriate career decisions.

Career day is a programme that is organised to provide vocational guidance information of supplementary or preliminary nature to students to enable them make appropriate career decisions. This programme has been widely used by many researchers all over the world in enhancing career decision-making skills in secondary school adolescent students. Such empirical works include those of Egbochuku (1997), Agulana (1985) and Stockard and McGee (1990). They all reported significant improvement in the career decision-making of the adolescent students.

The findings of this present study observed that sex is not a significant factor in the career decision-making of adolescent students in treatment groups at post-test. This was based on the fact that hypothesis 2 which stated that there will be no significant difference between male and female adolescent students in treatment groups in their career decision-making at post-test, was accepted, which meant that sex is not a significant factor in career decision-making. This implies that your sex does not really affect your choice of career. It has been observed today that sex is no more a barrier to choice of occupation. Most occupations today are unisex, which means any member of either sex can pursue them. If that is the case then your sex does not really matter.

Conclusion

The result of the study revealed that reciprocal peer tutoring is significant in the enhancement of career decision making among secondary school adolescents. Peer interaction therefore can be psychologically rewarding if well managed and tailored towards a definite goal. On the other hand, sex had no significant impact on the enhancement of career decision making among secondary school adolescents. The implication here is that whether you are male or female does not really count when it comes career decision making. Since the result of this study has indicated a level of significant positive im-

pact of reciprocal peer tutoring among secondary school adolescents, it therefore means that the result is valuable for the Nigerian educational system. The implementation of the result will bring a new dimension to the educational system which will be beneficial to adolescent students, counsellors and school teachers. The obvious challenge will be preparing both students, counsellors and teaching to be familiar with the implementation of reciprocal peer tutoring.

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