

Assessment of the Vocational Maturity of Adolescent Students in Owerri Education Zone of Imo State, Nigeria

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ABSTRACT The study primarily investigated the vocational maturity and occupational preferences of adolescent students in Owerri Education Zone of Imo state, Nigeria. The sample consisted of 600 senior secondary three students drawn from a population of 23,229 senior secondary school students. The instrument used for data collection was a 40-item questionnaire. Statistical tools used were the population t-test and one way analysis of variance. Some of the finding were: (a) that students were vocationally matured in four dimensions of vocational maturity namely: self knowledge, occupational information, involvement in decision making and independence in decision making (b) that gender had no significant influence on three out of four dimensions of vocational maturity.

INTRODUCTION

Adolescence which is a stage of development from childhood into adulthood is a natural phenomenon that is common in every human being. This has incidentally affected the students of this days and has posed some difficulties before these especially in the area of vocational choice and other challenges.

Naturally, it is supposed that as the child develops into adulthood, he should be able to make up his/her mind or be able to face the task and challenge of which particular vocation to get into as soon as he/she leaves the school, but this task still looks complex as the students are not sure of which vocation that are in line with their capabilities.

This arises from lack of exposure to adequate and reasonable vocational education which is a pre-requisite for successful and meaningful vocational aspirations. This problem of inadequate education and vocational immaturity still lingers, and begs for proper attention. Are adolescent students in Owerri Education Zone of Nigeria matured vocationally? Will gender, age, school location and school type affect vocational maturity of adolescent students? This study sought to find answers to these questions. Thus, the purpose of this study was to assess the vocational maturity of adolescent students in Owerri Educational Zone of Imo state in Nigeria.

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The study also sought to determine whether factors like gender, age, school location and school type influence vocational maturity of adolescent students. The study was designed to test these two null hypotheses:

1. Adolescent students in Owerri education zone are not significantly matured vocationally.
2. There are no significant effects of gender, age, school location and school type on vocational maturity of adolescent students.

Literature Review

Vocational maturity can simply be put as the ability of an individual to choose a preferred vocation or an occupation. Denga (1986) provided an evidence that vocational immaturity contributed to students' unrealistic vocational references and decision making. He concluded that vocationally mature students were those who possessed a level of vocationally relevant developmental tasks. It is expected that vocationally mature behaviour will assume different shapes depending upon the context provided by an individual's life stage.

Usually, several factors combine to shape and determine the vocational maturity of any individual. Such factors include cultural background, parent family, teachers and peer group influence. In addition, intellectual aptitude, achievement motivation, decision making ability, school,

vocational aspirations and opportunity influence vocational maturity of an individual or adolescent.

Onyejiaku (1985) carried out a study on intra-sex difference in the vocational maturity of Nigerian adolescents in four of the Crites (1964) postulated dimension of vocational maturity, namely: involvement in decision making, occupational information, independence in decision making and self knowledge. This study revealed that both boys and girls were significantly deficient in occupational information compared with involvement in decision making. The test of significance also showed that students are exceptionally more mature in involvement in decision making than in occupational information.

However, Asagwara (1980) investigated sex-difference in attitudinal maturity towards four of these vocationally relevant dimensions namely, establishment of occupational goal, vocational information, self knowledge and independence in decision making with 466 undergraduates (242 males and 224 females) of the University of Calabar for the 1980/81 session. The instrument for the study was a modified vocational development inventory (VDI) developed by Crites (1971). Results of students responses revealed that at 0.05 level of significance, male undergraduates were more vocationally mature than their female counterparts in their attitude towards establishment of occupational goals, occupational information and independence in decision making. But with respect to self knowledge, female undergraduates showed greater maturity in their attitudes.

In his study, Carew (1986) using 497 form one and form three students of Bornu State in Nigeria with the VDI constructed by Crites (1971) as an empirical measure of attitude towards vocational choice; sub-grouping of the attitudinal scale include involvement in the choice process; orientation toward work; independence in decision making; preference for vocational choice factors and conceptions of vocational choice process. The findings revealed that decision making stages are linked with the students' class or form levels. This means that vocational maturity is not necessarily linked with decision making among choice. The low statistical significant trend in the level of relationship between career maturity and decision making was attributable to level or class.

Super and Bohn (1970) remarked that there are sex differences in occupational maturity of high school boys and girls. Boys are more

vocationally mature than girls. While the high school boys become more involved in making career decision, girls are drawn towards marriage.

METHODOLOGY

The study was carried out in Owerri Education Zone in Imo State. There are three (3) Education Zones in Imo State, namely, Owerri, Orlu and Okigwe with Owerri having the highest students concentration. Imo state is one of the thirty six (36) States of Nigeria and is located in the rain forest Zone of West Africa. It can be located between latitude 5°12' and 5°56' North of Equator, and longitudes 6°38' and 7°25' East of the Greenwich Meridian. Owerri Educational Zone covers the Eastern, Western and Southern areas of Imo state. It has eleven (11) local government areas with a total number of 152 secondary schools. There are Aboh Mbaisc, Ahiazu Mbaise, Ezinihitte Mbaise, Ikeduru, Mbaitoli, Ngor Okpala, Oguta, Ohaji/Egbema, Owerri Municipal, Owerri North and Owerri West.

The study was essentially done using the expost facto design and the instrument for data collection was a questionnaire. The accessible population for the study was, therefore the population of all the senior secondary three students (SS3) totalling about 23,229 in the 152 secondary schools in Owerri Education Zone managed by the State Government.

Government (Zonal Education Management Board, Owerri). The students were aged 16-19 years. A stratified random sampling technique was adopted. The schools were stratified according to boys, girls and mixed secondary schools. On the whole, there were 18 boys, 22 girls and 112 mixed schools. The number of the schools was further stratified according to urban and rural areas respectively. Through further stratification and randomization, 30 schools with at least 2 schools were selected from each local government area. This sample included 20 and 10 secondary schools from urban and rural areas respectively. In all, there were 6 boys, 9 girls and 15 mixed schools for the study.

The research instrument (the questionnaire) was constructed by the researchers and vetted by experts in educational research, measurement and evaluation to ensure face and content validity. The instrument (questionnaire) had two (2) sections. Section A sought to elicit personal

information. It contained six (6) items. Section B sought information on the vocational maturity of adolescent students. The questionnaire items were of 4-point likert type with Strongly Agree (SA), Agree (A), Strongly Disagree (D) and Disagree (SD) as the options scored 4,3,2,1 respectively). The 600 copies of the research instrument were personally administered to the respondents by the researchers with the help of some teachers and the School Guidance Counselors in the respective schools. With this help, a 100% return rate was obtained. The statistical analysis techniques used in testing the hypotheses were population t-test statistics, independent t-test and one-way analysis of variance (ANOVA). All hypotheses were tested at .05 level of significance.

DATA ANALYSIS AND RESULTS

These are presented hypothesis-by-hypothesis.

Hypothesis One

Adolescent students in Owerri education zone are not significantly matured vocationally.

Here the researchers reasoned that in order to be considered vocationally mature, the respondents on the average should mark agree' (scored 3) among the given four responses to each of the 10 items making up a component of vocational maturity. Since each of the four components of vocational maturity had 10 items to measure it, the reference mean score for each component is $3 \times 10 = 30.00$, and for the overall variable of vocational maturity, the reference mean score will be $3 \times 40 = 120$. Thus the hypothesis can be further stated as follows. The

score representing the vocational maturity of adolescents in Owerri Education Zone is not significantly higher than 30.00 (for each component) and 120.00 for the overall variable. The hypothesis was tested with a population t-test (t-test of one sample mean). The results of the analysis are presented in table 1.

The results in Table1 have shown that the mean scores representing the vocational maturity levels of adolescent students in OEZ are all greater than the reference mean score of 30.00 (for each component) and of 120.00 (for the overall variable of vocational maturity). It is also seen that the associated calculated t-values of 25.44, 3.94, 11.15, 9.18, and 15.58 for self knowledge, occupational information, involvement in decision making and independence in decision making respectively are each greater than the critical t-value of 1.96 at .05 level of significance with 599 degrees of freedom. Therefore, the null hypothesis is rejected in favour of the alternative hypothesis. This means that the adolescent students in OEZ are vocationally matured, not only in each of the four dimensions of vocational maturity, namely self knowledge, occupational information, involvement in decision making and independence in decision making, but also in the overall variable of vocational maturity.

Hypothesis Two

There are no significant effects of gender, age school location and school type on vocational maturity of adolescent students.

The independent variables in this hypothesis are four; gender, age, school location and school type. The dependent variable is vocational maturity which has four dimensions and the overall dimension. Each of the four independent

Table 1: Result of population t-test analysis on whether adolescent student are vocationally matured (N=600).

S. No.	Variable	Mean	SD	t-value
1	Self knowledge	34.69	3.94	25.44*
	Reference score	30.00	0.00	
2	Occupational information	30.79	4.87	3.94*
	Reference score	30.00	0.00	
3	Involvement in decision making	31.93	4.23	11.15*
	Reference score	30.00	0.00	
4	Independence in decision making	31.68	4.49	9.18*
	Reference score	30.00	0.00	
5	Overall vocational maturity	128.48	13.12	15.58*
	References score	120.00	0.00	

*significant at .05 level (critical t=1.96); df = 599; N=600

variables was treated separately, and its effects was examined on each of the four dimensions of vocational maturity (VM) and on the overall dimension. For gender with two classifications of “male” and “female” independent t-test analysis was applied, and the results of the analysis are presented in table two. For age with two classifications of “16 years and below” and “17 years and above”, independent t-test analysis was also applied and the result presented in table three. For school location with two classifications of “urban” and “rural”, independent t-test analysis was equally applied and the result presented in table four. For school type with three classification of “boy”, “Girls” and “Mixed”, one-way analysis was applied, and the results are shown in Tables 5 and 6.

The results shown in Table 2 indicate that all the calculated t-values except one (for independence in decision making) are each less than the critical t-value of 1.96 at .05 level of significance with 598 degrees of freedom. With these results, the null hypothesis is not rejected in the three dimensions of VM and in the overall dimension. However in the case of independence

in decision making, the calculated t-value of 2.52 is greater than the critical t-value of 1.96. Therefore, the null hypothesis is rejected. This implies that sex has no significant influence on three dimensions of VM and on the overall VM; but sex has a significant influence on the level of independence in decision making of adolescent students. In other words, for self knowledge, occupational information, involvement in decision making and the overall VM, male students are not significantly difference from the female students. However, for independence in decision making, male students (with $X=32.13$) are significantly more independent than the female students (with $X=31.21$). The results of the influence of age on VM are shown in table 3 (VM) of adolescent students.

The results of table 3 indicate that each of the absolute calculated t-values of -0.73, 1.45, -1.03, 0.28 and 0.08 is less than the critical t-value of 1.96 at 0.05 level of significance with 598 degrees of freedom. With these results, the null hypothesis is not rejected in all the five instances. This means that for all the four components of vocational maturity and the overall VM, the

Table 2: Result of independent t-test analysis of the influence of gender on the vocational maturity of adolescent students.

S. No.	Variables	Group	N	Mean	SD	t-value
1	Self knowledge	Males	300	34.02	3.77	-0.46
		Female	300	34.16	4.11	
2	Occupational information	Male	300	31.08	4.61	1.56
		Female	300	30.46	5.13	
3	Involvement in decision making	Male	300	32.14	3.96	1.30
		Female	300	31.69	4.49	
4	Independence in Decision making	Male	300	32.13	4.25	2.52*
		Female	300	31.21	4.69	
5	Overall vocational Maturity	Male	300	129.37	12.25	1.69
		Female	300	127.53	14.35	

*significant at .05 level (critical $t=1.96$) $df=598$; $N=600$

Table 3: The influence of age on VM

S. No.	Variable	Group	N	Mean	SD	t-value
1	Self knowledge	16yrs and below	190	33.92	3.76	-0.73
		17yrs and above	410	34.17	4.02	
2	Occupational Information	16yrs and below	190	31.21	4.78	1.45
		17yrs and above	410	30.59	4.91	
3	Involvement in Decision making	16yrs and below	190	31.66	4.22	1.03
		17yrs and above	410	32.05	4.24	
4	Independence in Decision making	16yrs and below	190	31.76	4.40	0.28
		17yrs and above	410	31.69	4.54	
5	Overall vocational Maturity	16yrs and below	190	128.54	13.14	0.08
		17yrs and above	410	128.45	13.44	

No t-value is significant at 0.05 level
Critical $t = 1.96$; $df = 598$; $N = 600$

students who are 16yrs and below are not significantly different from the students who are 17yrs and above. Thus, age has no significant influence on the vocational maturity of adolescent students in Owerri educational zone.

The results of the influence of school location on vocational maturity are shown in Table 4.

Results in Table 4 indicate that the calculated t-values for three of the four dimensions of vocational maturity are each smaller than the critical t-value of 1.96 at 0.05 level of significance with 598 degrees of freedom. With these results, the null hypothesis is not rejected. Thus there is no significant influence of school location on the VM (self knowledge, involvement in decision making, independence in decision making) and the overall VM of adolescent students. However, for occupational information, the absolute calculated t-value of -2.68 is greater than the critical t-value of 1.96. With this result, the null hypothesis is rejected. This means school location has a significant influence on the level of occupational information received by adolescent students. The mean values in the table indicate that in rural areas, students with $X = 31.30$ possess a significantly high level of occupational information than the students in urban areas with $X = 30.24$. In other dimensions of VM and in the overall dimensions, students in urban areas are not significantly different from students in the rural area.

Table 4: Results of independent t-test analysis of the influence of school location on the vocational maturity (VM) of adolescent students.

S. No.	Variable	Group	N	Mean	SD	t-value
1	Self knowledge	Urban	300	34.15	3.76	0.38
		Rural	300	24.03	4.14	
2	Occupational Information	Urban	300	30.24	4.60	-2.68*
		Rural	300	31.30	5.07	
3	Involvement in Decision making	Urban	300	31.84	3.83	-0.47
		Rural	300	32.00	4.58	
4	Independence in Decision making	Urban	300	31.83	4.16	0.79
		Rural	300	31.54	4.78	
5	Overall vocational Maturity	Urban	300	128.06	11.71	-0.75
		Rural	300	128.87	14.71	

*significant at 0.05 level; critical $t = 1.96$; $df = 598$; $N = 600$

Results of the influence of school type on VM are presented in Tables 5 and 6.

Table 5A shows the group sizes, mean values and standard deviations (SD) for the various dimensions of VM. The actual result of analysis of variance for the four dimensions of VM and the overall are shown in the lower part of table 5A. The results in the table indicate that the calculated F-values of 0.89 and 1.53 for self knowledge and occupational information respectively are each less than the critical F-value of 3.02 at .05 level of significance these with 2 and 597 degrees of freedom. With these results, the null hypothesis is not rejected. This means, there is no significant influence of school type on the levels of self knowledge and occupational information of adolescent students in OEZ.

However, the lower part of table 5B also shows the calculated F-values of 7.19 for involvement in decision making, 4.99 for independence in decision making and 5.35 for the overall VM, which are each greater than the critical F-value of 3.02. With these results, the null hypothesis is rejected in these three instances. This means, there is a significant influence of school type on the levels of involvement in decision making, independence in decision making and the overall vocational maturity of adolescent students in OEZ. The nature of this significant influence (that is, which group possesses more than the other) is explored further in the Fishers' least significance

Table 5: Group mean and standard deviations of adolescents in vocational maturity based on school type.

S. No.	Variable	Group	N	Mean	SD
1	Self knowledge	1 (Boys)	190	34.09	3.00
		2 (Girls)	168	33.77	4.31
		3 (Mixed)	242	34.30	4.30
		Total	600	34.09	3.94
2	Occupational Information	1 (Boys)	190	30.88	3.89
		2 (Girls)	168	30.24	4.90
		3 (Mixed)	242	31.08	5.49
		Total	600	30.78	4.87
3	Involvement in Decision making	1 (Boys)	190	32.16	3.14
		2 (Girls)	168	30.90	4.06
		3 (mixed)	242	32.45	4.93
		Total	600	31.93	4.23
4	Independence in Decision making	1 (Boys)	190	32.01	3.53
		2 (Girls)	168	30.76	4.62
		3 (mixed)	242	32.07	4.98
		Total	600	31.68	4.49
5	Overall vocational Maturity	1 (Boys)	190	129.14	9.52
		2 (Girls)	168	126.68	13.39
		3 (mixed)	242	129.91	15.45
		Total	600	128.48	13.33

Table 5B: Result of analysis of variance of the influence of school type on vocational maturity of adolescent students.

S. No.	Variable	Source of variation	Sum of square	Df	Mean square	F-ratio
1	Self knowledge	Between groups	27.64	2	13.82	0.89
		Within groups	9254.68	587	15.50	
		Total	9282.32	599		
2	Occupational Information	Between groups	72.28	2	36.14	1.53
		Within group	14145.56	597	23	
		Total	14217.84	599		
3	Involvement in Decision making	Between group	251.98	2	125.99	7.19*
		Within group	10463.64	597	17.53	
		Total	10115.62	599		
4	Independent in Decision making	Between groups	198.56	2	99.28	4.99*
		Within groups	11883.28	597	19.91	
		Total	12081.84	599		
5	Overall vocational Maturity	Between groups	1886.22	2	943.11	5.38*
		Within groups	104587.54	587	175.19	
		Total	106473	76599		

*significant at .05 level (critical F 2,597 = 3.02).

difference (LSD) multiple comparison analysis presented in table 6.

The results in Table 6 show that for involvement in decision making, the t- value of 2.84 which represents the comparison between “boys” and “girls” school students, and the t – value of 3.69 which represents the comparison between “girls” and “mixed” school students are significant at .05 level. The t-value of -0.71 which represents the comparison between boys and “mixed” school students is not significant. The interpretation of these significant t and non significant t-values is that students in “boy” schools possess a significant higher level of involvement in decision making than students in girls school. Also students in “mixed” schools possess a significantly higher level of involvement

in decision making than students in ‘girls’ school. However, students from boys schools and mixed schools are not significantly different in their levels of involvement in decision making.

For independence in decision making, the significant t- value of 2.65 indicates that the level of independence in decision making by students in “boys” school is significantly higher than the level of independence in decision making in “girls” school. Also the significant t-value of -2.92 indicates that students in ‘mixed’ schools are significantly higher than student in ‘girls’ schools in their levels of independence in decision making. However, students in ‘boy’ schools and students in ‘mixed’ schools are not significantly different in their levels of independence in decision making.

For the overall maturity, the comparison between students in ‘boys’ schools and students in ‘girls’ schools yielded a significant t-value of 2.47. This is means that students in ‘boys’ schools are significantly more vocationally matured than the students in ‘girls’ schools. Also the comparison between students in ‘girls’ schools and students in ‘mixed’ schools yielded a significant t-value of -3.18. This means that students in mixed schools are significantly more vocationally matured than students in ‘girls’ schools. However, a non significant t-value of - 0.60 indicates that students in ‘boys’ school and students in ‘mixed’ schools are not significantly different in their levels of vocational maturity.

Table 6: Results of Fishers’ least significance difference analysis of the influence of school type on VM of adolescent students.

Variables	Group (School type)	School type		
		Boys (n=190)	Girls (n=168)	Mixed (n=242)
Involvement in	1 (boys)	32.16a	1.26b	-0.29
	2 (girls)	2.84*c	30.90	-1.55
	3 (mixed)	-0.71	-3.69*	32.45
		MS _w = 17.53		
Independence in	1 (boys)	32.01a	1.25b	-0.06
	2 (girls)	2.65*c	30.76	-1.31
	3 (mixed)	-0.14	-2.92*	32.07
		MS _w = 19.90		
Overall Vocational	1 (boys)	129.14a	3.46b	-0.77
	2 (girls)	2.47*c	125.68	-4.23
	3 (mixed)	-0.60	-3.18*	129.91
		MS _w = 175.19		

DISCUSSION OF FINDINGS

The results in this study showed that

adolescent students were vocationally matured in the four dimensions of vocational maturity, namely: self knowledge, occupational information, involvement in decision making and independence in decision making and also in the overall variable of vocational maturity. This synchronizes with Crites' (1964) assertion that in order that the individual who chooses wisely and realistically, he is expected to mature in a number of work relevant dimensions which he identified as goal selection, involvement in decision making, self knowledge, independence in decision making and occupational information.

In this study, it was found that gender has no influence on the three out of the four and on the overall dimensions of vocational maturity; but gender had influence on the level of independence in decision making of adolescent students. The finding showed that male students are not significantly different from the female students in the areas of self knowledge, occupational information, involvement in decision making and the overall vocational maturity. But for independence in decision making, male students (with $X = 32.13$) were significantly more independent than the female students (with $X = 31.21$). This result agrees with the findings of Essien (1981) who through survey revealed that there is no significant difference between male and female students in involvement in decision making on preferred occupations.

On school location which significantly influenced occupational preference of adolescents in the study, it might be related to the fact that students in the urban areas as a result of the environment they find themselves, have opportunities to interact with people in various occupations. Students in the rural areas have no access to correct information about the world of work, they tend to prefer occupations obtainable in their environment.

Another finding of this study is that the type of school attended by adolescent students significantly influences their preferred occupations. This finding tends to agree with Gesinde (1976) whose result showed that students attending an all male school preferred Engineering, Agriculture, Architecture, and such occupations and those attending all female schools preferred above others pharmacy, law, chemical occupations, etc., while those in mixed schools preferred medical, nursing and teaching careers.

In this study, age did not influence occupational preference of adolescent students. However, this finding is contrary to Okonkwo's (1980) finding, who in his study of some determinants of vocational preferences among Nigerian secondary school students, found that age significantly differentiated the occupational preferences of his subjects. Reasons for this differential could be as a result of the consistent improvement of technology.

CONCLUSION

From the findings of this study, it is concluded that most of adolescent students in secondary schools in Owerri Educational Zone of Nigeria are significantly vocationally matured to be able to make realistic occupational choices for themselves. Based on this, it is recommended that increased opportunities should be made available for pupils right from primary schools through post-primary education to explore the world of work.

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