

# Assessment of Nigerian secondary school students' opinion of ceramics as a career choice

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## ABSTRACT

There is an unprecedented need to harness the dividend of vocational and technical education such as ceramics education in order to alleviate the existing youths' gross unemployment in Nigeria. In this regards, survey method was used in making inquiry into the position of secondary students as regards ceramics discipline as a career choice with a view to channeling a path towards the advancement of the discipline in the country. This study used inferential and descriptive statistics to analyze its data. It was found that lack of inherent skills as required in ceramics education and practices, students' arm of study at the secondary school level and students' gender could engender students' reluctance in making ceramics discipline a career choice despite that they are aware that the discipline exists.

**Keywords:** Ceramics education and practices, secondary school students, opinion, career choice, Nigeria.

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## INTRODUCTION

Ceramics is an inorganic and non-metallic material treated at high temperatures. The expediency of ceramics to man from time immemorial cannot be overestimated. For instance, ceramics have been tested and proved as an important one among the major sustainable materials that can be employed in an effort to mitigate environmental and economic problems associated with building and construction. As building is one of the basic needs of man, it is obvious that ceramics potentialities are enormous. Ceramic materials are used for the production of useful products such as bricks for building houses, tiles for both the interior and façade decoration of the built environment, refractories for high temperature application industries, sanitary ware and dinnerware for household use among others.

Ceramic discipline is a field of study that involves the teaching and learning about ceramics and all that it entails- its nature, method of processing, and usefulness among others. Ceramics as a course of study is one of the disciplines in the Nigerian educational programme that avail trainees the opportunity of acquiring appropriate skills, abilities and competences both mental and

physical as equipment for the individual to live and contribute to the development of the society (Okonkwo, 2014). In other words, ceramics course is a viable tool that can be used in engendering self-reliance for the gross unemployed Nigerian youths.

Kashim and Adelabu (2012) argued that with the growth of applications in the use of ceramic raw materials, ceramics as a course of study in Nigeria has a promising future considering the vast potential that can be tapped and maximized from it locally and internationally. It has been observed that ceramic education and practices has a great potential to thrive in Nigeria owing to availability of abundant ceramic raw materials spread around the country (Kashim and Adelabu, 2013; Adindu et al., 2014). However, the country is yet to harness the potentialities of ceramics education despite that Nigeria is richly blessed with ceramic resources. It is noteworthy that many courses that seem to have gained societal favour in the country have not fetched students their hard-desired white collar jobs and could neither fetch them a blue collar job after graduation.

According to Marriam Webster Dictionary (2016), secondary school is defined as a school intermediate between elementary school and college, usually offering general, technical, vocational, or college preparatory courses. Secondary education is the education children receive after primary education and before the tertiary stage (National Policy on Education: Federal Republic of Nigeria, 2004). Thus, secondary school can be referred to as the second stage or second tier/intermediate level of education. It is significant to note that secondary school is the most crucial level of education since career choice is being made at this level of education. Career choice is a critical decision every individual makes as it impacts all aspects of one's life in the future. A number of factors influence career choices among students. A study conducted by Borchert (2002) on career choice factors on high school students revealed that three major areas of students' life affecting the career choice they make include environment, opportunity, and personality.

Nigeria has seen the need for transforming Secondary School education, owing to increasing unemployment rate of graduates. As a result of this, Nigeria has introduced 34 trade subjects (pottery being one of these courses) as part of the Senior Secondary Education Curriculum reform in order to make secondary school education functional, equipping students for employment and entrepreneurship (Ford Foundation, 2014). Pottery though being the offshoot of ceramic practices at its inception is but only a fraction of the broad spectrum of ceramics education in modern times. In Nigeria, a large proportion of students make unrealistic vocational preferences and appear to fail in their jobs fields after school, since knowledge of their individual characteristics like interest, aptitude, intellectual ability and values were not considered before vocational choice was made (Ezenibe, 2011). Ceramics education is an aspect of technical and vocational education. Technical and vocational education emphasizes skills, knowledge and attitudinal acquisition for productivity and self-reliance (Umunadi, 2014). The activities of ceramics education provides the students with appropriate training for acquisition of technical and vocational skills.

Be it as it may, the interest of students towards a course of study, most often than not, is premised upon the measure of their perception of it. Na'Allah (2001) opined that there exists low rate of students' enrolment and hence, slow development of ceramic education in the country. Having a broad knowledge of the students' position about ceramics as a course of study could engender proper orientation at secondary level of education which could go a long way to enlighten prospective students into the tertiary level of education on what ceramic discipline is all about and the potentials it holds towards the economic and technological advancement in the country. Be it as it may, it is imperative to investigate into students' awareness of ceramics discipline, starting from the second tier level of

education in Nigeria. To the best of the knowledge of the researcher through literature review, no research has been channeled in the line of making enquiry into how secondary school students in Nigeria view ceramic discipline.

The aim of this study is to make enquiry into the position of secondary students as regards ceramics discipline with a view to channeling a path towards the advancement of the discipline in the country. The specific objectives of this study are to:

- i. Assess the level of students' awareness of ceramics as a course of study;
- ii. Examine students' opinion on ceramics discipline which includes lucrativeness, professional nature of ceramics discipline, gender predominance and nature of discipline;
- iii. Determine whether there is significant relationship between students' awareness of ceramics discipline and their prospective choice of career in the same field;
- iv. Determine whether there is significant relationship between students' gender and their prospective choice of career in each of the areas of specialization in ceramics discipline;
- v. Determine whether there is significant relationship between students' present arm of study (that is, art, commercial or science) in Secondary School and their prospective interest in ceramics discipline as a career choice; and
- vi. Determine whether there is significant relationship between students' inherent skill /level of inherent skill and their prospective interest in ceramics discipline as a career choice.

## MATERIALS AND METHODS

Survey research was conducted among secondary school students from Ondo State, Nigeria, who volunteered to participate in the study. Using simple random sampling technique, three schools (St. Louis Grammar School, Akure; Oyemekun Grammar School, Akure and Ijapo High School, Akure) were selected within Akure, the state capital of Ondo State. 500 questionnaires were distributed to the respondents within the three selected schools. The respondents cut across all the three study arms in typical Nigerian secondary schools, that is, art, commercial and science arms. The researcher personally supervised the administering and collection of the questionnaires so as to ensure that all the instruments distributed were fully completed and completely retrieved. Both inferential and descriptive statistical tools were used for data analysis. Descriptively, data was analyzed using tables. The inferential statistical tool used was Chi-Square ( $\chi^2$ ). Chi-Square test was used to analyze the data as it is the most suitable tool for comparing two or more independent variables. The

critical decision level was 0.05 (which is equal to alpha).

**RESULTS**

Table 1 shows the socio-demographic characteristics of respondents. Age the respondents ranged from 10 to 16 and above. The respondents were found to be 227 male students and 273 female students, making 45.4 and 54.6%, respectively.

**Research question 1:** What is the level of students' awareness of ceramics as a course of study?

The result of Table 2 shows that 291 students (58.2%) showed positive response on previous awareness of ceramics discipline while 209 students (41.8%) showed negative response. 69 students (13.8%) indicated high knowledge of the discipline, 174 students (34.8%) indicated moderate knowledge of the discipline and 257 students (51.4%) indicated low knowledge of the discipline. 118 students (23.6%) showed positive response on having inherent skill as regards ceramics discipline while 382 students (76.4%) showed negative response. Further response to question on level of inherent skill showed that 44 students (8.8%) indicated high level of inherent skill as required in the discipline, 161 students (32.2%) indicated moderate level of inherent skill required in the discipline, and 295 students

**Table 1.** Socio-demographic characteristics of respondents.

Variables	Frequency	Percent (%)
Age group (in years)		
10 – 12	2	0.4%
13 - 15	188	37.6%
16 above	310	62.0%
Mean		15.9
Sex		
Male	227	45.4%
Female	273	54.6%
Study arm		
Science	302	60.4
Art	148	29.6
Commercial	50	10.0

(59.0%) indicated low level of inherent skill required in the discipline.

According to this result, most of the respondents are aware that ceramic discipline exists, less students indicated low knowledge of the concerns of the discipline while most students declined on having inherent skill as required in ceramics practices.

**Table 2.** Level of students' awareness of ceramics as a course of study.

Previous awareness of the discipline					
Yes	%	No	%		
291	58.2	209	41.8		
Previous knowledge of the discipline					
High	%	Moderate	%	Low	%
69	13.8	174	34.8	257	51.4
Relevant inherent skill of respondents					
Yes	%	No	%		
118	23.6	382	76.4		
Level of relevant inherent skill of respondents					
High	%	Moderate	%	Low	%
44	8.8	161	32.2	295	59.0

**Research question 2:** What is students' opinion on ceramics discipline which includes lucrativeness, professional nature of ceramics discipline, gender predominance and nature of discipline?

The result of Table 3 shows that 205 students (41.0%)

showed positive response on opinion on likelihood to pursue ceramics as a career choice while 295 students (59.0%) showed negative response. 290 students (58.0%) showed positive response on opinion on lucrativeness of ceramics discipline, 123 students (24.6%) showed negative response, while 87 students

**Table 3.** Students' opinion on ceramics discipline.

Opinion on Likelihood to pursue ceramic as a career					
Yes	%	No	%		
205	41.0	295	59.0		
Opinion on lucrativeness					
Yes	%	No	%	Undecided	%
290	58.0	123	24.6	87	17.4
Opinion on gender predominance					
Male Oriented	%	Female oriented	%	Both	%
165	33.0	33	6.6	302	60.4
Opinion on level of relevant inherent skill					
High	%	Moderate	%	Low	%
44	8.8	161	32.2	295	59.0
Opinion on nature of discipline					
Science Based	%	Art Based	%	Both	%
93	18.6	163	32.6	244	48.8

(17.4%) students made no decision. On opinion on gender predominance, 165 students (33.0%) agreed that the discipline is male oriented, 33 students (6.6%) agreed that the discipline is female oriented, while 302 students (60.4%) agreed that the discipline is both male and female oriented. On opinion on nature of the discipline, 93 students (18.6%) agreed that the discipline is science based, 163 students (32.6%) agreed that the discipline is art-based, while 244 students (48.8%) agreed that the discipline is both art and science based.

This result revealed that: Most of the respondents are reluctant to pursue ceramics as a career choice, show the opinion that ceramics practices are highly lucrative, agreed that ceramics is practiced by both male and female and perceived that ceramics discipline is both art and science based.

**Research question 3:** Is there significant relationship between students' awareness of ceramics discipline and their prospective choice of career in the same field?

H<sub>0</sub>: There is no significance relationship between respondents' awareness of ceramic discipline and their predisposition towards it as a career choice.

H<sub>1</sub>: Significant relationship exists between respondents' awareness of ceramic discipline and their predisposition towards it as a career choice.

Decision Rule: Reject H<sub>0</sub> if  $\chi^2 > P\text{-value}$

Conclusion: Since  $\chi^2 (0.0583) < P\text{-value} (0.809167)$ , we conclude that no significant relationship between respondents' awareness of ceramic discipline and their predisposition towards it as a career choice. (Table 4) This implies that students' awareness that the discipline

**Table 4.** Relationship between respondents' awareness of ceramic discipline and their predisposition towards it as a career choice.

Career choice	Awareness		Total
	Yes	No	
Yes	118	87	205
No	173	122	295
Total	291	209	500

$\chi^2 = 0.0583, df = 1, \chi^2/df = 0.0583, P(\chi^2 > 0.0583) = 0.809167.$

exists does not mean that they will choose a career in it. This is because there are some other basic factors that determine students' career choice apart from their awareness of a particular discipline. These factors as observed by Borchert (2002) include environment, opportunity, and personality of individual student.

**Research question 4:** Is there significant relationship between students' gender and their prospective choice of career in each of the areas of specialization in ceramics discipline?

H<sub>0</sub>: There is no significant relationship between gender of respondents and their predisposition towards ceramics as a career choice.

H<sub>1</sub>: Significance relationship exists between gender of respondents and their predisposition towards ceramics as a career choice.

Decision Rule: Reject H<sub>0</sub> if  $\chi^2 > P\text{-value}$

Conclusion: Since  $\chi^2 (20.7296) > P\text{-value} (0.00001)$ , we conclude that relationship exists between gender of

respondents and their predisposition towards ceramics as a career choice. (Table 5)

This implies that the students' gender could either encourage or dissuade them from choosing ceramics as a career. Female students showed more reluctance in choosing ceramics as a career possibly owing to their perception that ceramics practice is tedious. However, Ladi Kwali for instance was a re-known female Nigerian contemporary ceramist who was prominent not only locally but also internationally. It means that ceramics is not difficult for female gender to practice. But it requires commitment on the side of anyone who desires to practice it, be it male or female. With relevant career orientation programmes based on ceramics education, more female secondary school students can be encouraged to develop interest in ceramics as a career choice.

**Research question 5:** Is there significant relationship between students' present arm of study (that is, art, commercial or science) in Secondary Schools and their prospective interest in ceramics discipline as a career choice?

H<sub>0</sub>: There is no significance relationship between arm of study of respondents and their predisposition towards ceramics as a career choice.

H<sub>1</sub>: Significance relationship exists between arm of study of respondents and their predisposition towards ceramics as a career choice.

Decision Rule: Reject H<sub>0</sub> if  $\chi^2 > P$ -value

Conclusion: Since  $\chi^2$  (25.5907) > P-value (0.00001), we conclude that relationship exists between arm of study of respondents and their predisposition towards ceramics as a career choice. (Table 6)

In agreement with initial findings by Ogunduyile as cited by Kashim and Adelabu (2010) on science students' biasness towards art-related disciplines, science students showed the least level of interest in ceramics as a career choice. Nevertheless, the development of well-designed curriculum that will accommodate a well-pronounced art and science synergy in ceramics discipline (as there is inherent art and science synergy in ceramics practices from its inception) as observed by Odewole and Adelabu (2017) will not only be effective at the tertiary level but also at the secondary school level.

**Research question 6:** Is there significant relationship between students' inherent skill /level of inherent skill and their prospective interest in ceramics discipline as a career choice?

H<sub>0</sub>: There is no significance relationship between level of inherent skill of respondents and their predisposition towards ceramics as a career choice.

**Table 5.** Relationship between gender of respondents and their predisposition towards ceramics as a career choice.

Career choice	Gender		Total
	Male	Female	
Yes	118	87	205
No	109	186	295
Total	227	273	500

$\chi^2 = 20.7296$ , df = 1,  $\chi^2/df = 20.7296$ ,  $P(\chi^2 > 20.7296) = 0.00001$ .

**Table 6.** Relationship between arm of study of respondents and their predisposition towards ceramics as a career choice.

Study arm	Interest		Total
	Yes	No	
Science	99	203	302
Art	73	75	148
Commercial	33	17	50
Total	205	295	500

$\chi^2 = 25.5907$ , df = 2,  $\chi^2/df = 12.80$ ,  $P(\chi^2 > 25.5907) = 0.00001$ .

**Table 7.** Relationship between level of inherent skill of respondents and their predisposition towards ceramics as a career choice.

Inherent skill	Interest		Total
	Yes	No	
High	22	22	44
Moderate	78	83	161
Low	165	130	295
Total	265	235	500

$\chi^2 = 2.5169$ , df = 2,  $\chi^2/df = 1.26$ ,  $P(\chi^2 > 2.5169) = 0.284096$ .

H<sub>1</sub>: Significance relationship exists between level of inherent skill of respondents and their predisposition towards ceramics as a career choice.

Decision Rule: Reject H<sub>0</sub> if  $\chi^2 > P$ -value

Conclusion: Since  $\chi^2$  (2.5169) > P-value (0.284096), we conclude that relationship exists between level of inherent skill of respondents and their predisposition towards ceramics as a career choice. (Table 7)

This indicates that students' recognition of their inherent skill as required in ceramics practices guarantees their interest in the discipline. This is not to say that students who have not discovered their inherent skills in this respect cannot perform excellently in ceramics practices if they are given the opportunity to pass through the required training.

**DISCUSSION**

Lack of inherent skills as required in ceramics education

and practices, students' arm of study at the secondary school level and students' gender could engender students' reluctance in making ceramics discipline a career choice despite that they are aware that the discipline exists. It will be obvious that the tendency of the students to choose ceramics as a career choice will be low as long as they still lack the deep knowledge of what the discipline entails and the career prospect it has to offer them. It was observed that having a grip on the secondary school students' opinion of ceramic discipline would help ceramic researchers in the country to know the areas to address in restructuring the discipline for better patronage from prospective students into tertiary institutions.

Ceramic discipline is classified among vocational and technical education that can be harnessed towards self-reliance among the gross unemployed youths in the country, therefore, more efforts should be put in place in order to enhance increasing patronage of prospective students towards the discipline. Government, corporate bodies and all stakeholders in the field of ceramics should make efforts to encourage more secondary school students to see the gains of ceramics education and practices more appealing to students in order to have more inflows of students that will patronize ceramics programme at the tertiary level.

Giving that the level of patronage of students towards a course can determine its sustainability in fulfilling its obligation for the nation, ceramics researchers and professionals most especially in academics should channel more efforts towards carrying out well-designed career orientation programmes in favour of ceramics education and practices at the pre-tertiary level. This is hoped to spur a well-meaning interest in the secondary school students towards pursuing ceramics discipline as a career choice at the tertiary level of education. The curriculum of ceramics discipline should also be redesigned to accommodate art and science synergy. This can go a long way to appeal to students across all the three arms (science, art and commercial) at the secondary school level to choose ceramics as a prospective career choice at the tertiary level.

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