

RELATIONSHIP BETWEEN STUDENTS PERCEPTION OF SCHOOL WORKSHOP PSYCO-SOCIAL ENVIRONMENT AND ACHIEVEMENT IN TECHNICAL COLLEGES IN KADUNA STATE

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Abstract

This study was designed to investigate the relationship between students' perception of school workshop psycho-social environment and their achievement in some technical colleges in Kaduna state. Five research questions and three hypotheses were formulated, all derived from the literature reviewed. Two instruments, school workshop environment scale questionnaire (SWESQ) and cumulative score of TS2 technical students were used to collect relevant data from a sample of 295 TS2 students randomly selected from 3 technical colleges in Kaduna State. The colleges were selected by stratified random sampling technique. Mean and standard deviation were used to analysed research questions 1 and 2 while Pearson correlation was used to analysed research question 3. The study among other things revealed that school workshop psycho-social environmental factors correlated negatively with students' achievement in technical colleges in Kaduna state. Based on the findings, the following recommendations were made: The teacher should endeavour to create conducive and stimulating atmosphere for the entire school workshops irrespective of the location, the professional status of the teacher should be greatly improved, and the welfare of the teachers should be

enhanced by way of better conditions of service as one of the many ways of motivating them to perform at their best in the school workshop.

Technical Colleges are institutions that provide secondary level education in technical education. Technical Education according to Federal Republic of Nigeria (2004) is that aspect of education that leads to the acquisition of practical and applied skills as well as basic scientific knowledge. In the same vein, (UNESCO 2007), defined technical and vocational education as a comprehensive term referring to those aspect of educational process involving, in addition to general education the acquisition of practical skills, attitudes and understanding of knowledge relating to educational life. The aim of technical colleges is to produce graduates with saleable skills, knowledge and attitude necessary for effective employment and who can actually function well in their place of employment. In technical colleges, technical teachers give training in various disciplines such as woodwork, metalwork, building and electrical/electronic technology among others (Adeyemi&Uko-Aviomoh2004).

The school workshop refers to a room or building housing the facilities used for manual training of students in Technical subjects so that they could acquire the practical skills that would enhance their economic life. In order to carry out such skilled training, the school workshop must be well managed in benefits of the students. Technology in particular is unique, because it is also skill oriented and requires the use of workshop for the provision of learning activities in which the learner could experiment, study, create, construct, design, and order to be a replica of what is obtainable in industries and companies where the students will find employment upon graduation. Similarly, workshop is a unique learning environment in which the learner may test, construct, repair, experiment, design, disassemble, create, imagine and study (Ezeji, 2005). All these importance of technology notwithstanding, students perform poorly in technical subjects (Dakun, 2001).

This poor achievement in technical subjects among some technical college students has made a number of technical educators to study the problem empirically with the hope of finding causes and plausible solutions. Some of the causes identified according to Grossman, & Adam, (2000) are poor background, lack of teaching and learning materials, poor method of teaching, lack of experienced and qualified teachers, insufficient supply of workshop equipment and teacher behaviour. In addition to these factors listed above as responsible for poor achievement of students it is suspected that student's workshop-learning environment may contribute immensely to poor achievement especially in some technical colleges.

School workshop environment according to Walberg, (2001) refers to the external condition and influence in the school that can influence the academic achievement of students irrespective of their intelligent quotient. In the Nigeria setting the school workshop environment appears to be static, not changing with changes in time. The workshop environment of a school is an embodiment of the physical,

sociological, psychological and psychosocial conditions. The physical workshop environment has to do with the age of the workshop building, colour, level of available furniture, desks practical facilities and seats, ventilation, lighting, roof, ceiling and floor (Akubue, 2001).

The sociological workshop environment or climate refers to the feeling, which the teachers and the learners are able to generate in making the workshop morale high or low (Akubue, 2001). The psychological workshop environment refers to the level of the speed of teaching, cohesiveness, distractions, interests, motivations, anxieties, confusion and difficulty of the workshop learning activities (Haertel and Walbeg, 2004). The psycho-social workshop environment is a type of workshop that has to do with interactions in the school workshop. These interactions involve: teacher and students' interactions, students and students interactions, students and practical materials interaction, and students, practical materials and teacher interaction (Anyafulude, 2006).

In Nigeria psycho-social workshop environment, it appears that there is suppression of students by some teachers who claim to know everything, thereby giving students little or no opportunity to air their views (Nwabueze, 2004). According to Dewey, (2006) the poor student relationship may lead to poor achievement while good student/teacher relationship may lead to better achievement in technical colleges. The nature of the workshop environment and psycho-social interactions may make a difference in how the students learn and achieve their goals in some technical colleges. According to Idowu, (2006), it also deals with teachers' perception of their students and students' perception of their teachers. Some teachers perceive their students as being stubborn, older than their chronological ages, incapable of making decisions, good for nothing, unfriendly, etc. Other teachers perceive their students as being worthwhile, tender, friendly, innovative, intelligent, helpful etc. When the teacher's perception of his student is positive, it may result to good teacher/student interaction but when he perceives his student in the negative direction, it may result in the negative direction and results to rancour, anger, hatred and poor students/teacher relationship. The nature of psycho-social technical college's workshop learning environment has been found to differ according to location and may or may not result to difference in students' achievement in technical college Lawren, (2006).

Perception can therefore be seen as the organization, identification, and interpretation of sensory information in order to represent and understand the environment. According to Murdock (2007), location influence social interaction. A conducive psycho-social workshop learning environment does not only serve the child's emotional developmental needs but also encourages intellectual development by giving the child opportunity for experimentation, exploration and self-knowledge. Allen, (2004) contented that a stimulating psychosocial workshop environment provides motivation for a child to become a miniature researcher through the process of reading, recalling, self-achievement and actualization. Hence, the mind of the learner and his

interest is in what he is presented with and conditioned by the stimuli in his psychosocial learning environment. If this is the case for the maximum learning to take place, it follows that a psychosocial workshop learning environment for students should be well planned and stimulating for this may help them develop positive attitude towards a particular workshop practice and enhance their achievement in technical education.

Achievement in education refers to school progress made by a student from one class to another Agbafe, (2007). Achievement according to the new International Webster's comprehensive Dictionary of English Language (2003) is the act of accomplishment or attainment of educational goal. It is a performance through a standardized test for measuring an individual's progress in the mastery of a subject to be learned. Achievement can be defined as a measure of student's present level of knowledge or skills. Students should go through the appropriate experience, which will enable them to learn or gain the ability to perform tasks, to acquire certain skills or behaviour in a deserved way.

According to Akukwe, (1990), level of achievement derived from objectives of planned school experience is usually closely tied to them. Psycho-social workshop environment assessment has been found to bear strong and consistence links with student's achievement and attitude to furnish useful criteria in the evaluation of educational programmes and to provide a sound basic guide to teacher's practical attempt in improving their psychosocial workshop Fraser (1991). What is lacking in school research and psychological theory in school learning is the consideration of student perception of the social – psychological environment of their workshop and the direct / indirect linkage of perception to measures – students outcome such as standardized tests, performance, interest in the subject, self-concept as a learner and students behaviour that are of interest to policy makers, education practitioners, parents and students.

However, Okebukola, (2004), said that Most of these research works were done outside Nigeria. Therefore, the result of these studies cannot be generalized to Nigeria due to differences in the characteristics of these countries level of education, social cultural and social-economic settings, which also contribute in no small measure to the strength of the factors in relating significantly to achievement. Thus, the issue of exactly how psycho-social workshop environment in technical colleges are, and how students interpret the psychosocial factors or characteristics of their school psycho-social workshop environment remains unresolved. This study intends to investigate the relationship between student perception of school workshop psycho-social environment and achievement in some technical colleges. Therefore, the researchers are of the view that since location of workshop and students' perception of workshop psychosocial environment may have influence on their achievement in some technical colleges in Kaduna state, the issue is worth investigating.

Statement of the Problem

Over the past three decades or so, the achievements of Kaduna State Technical College Students in both National Business and Technical Examinations Board (NABTEB) and teacher-made examinations have shown considerable and progressive deterioration, especially in the student's perception of school workshop psychosocial environment. In measuring achievement, it is believed that students should go through the appropriate experience which will enable them to learn or gain the ability to achieve tasks to acquire certain practical skills in a deserved way. However, students have not developed positive attitude and interest towards their workshop environment Darma, (2006). This according to some researchers could be due to the nature of their psychosocial school workshop environment, which arises as a result of some workshop environmental factors like the physical environment, teachers' behaviour, teaching method and interaction in the workshop. Though much effort has been made by the States and Federal Government to improve technical/vocation education in Nigeria, technical education achievement at the senior secondary school level is still low. The NABTEB registrar, (2016) noted that NABTEB as a registered examination body has witnessed a significant improvement this year compared to the previous years. "Comparatively, a total of 30.38% were certified as craftsmen in 2016, while in 2015, 24.73% were certified as craftsmen,"

Psycho-social workshop environment is one of the conditions in the school which affects a student. Could it be that much attention has not been given to the psycho-social characteristics of students during practical learning or due to the way students perceive their school workshop psycho-social environment or due to the location of their schools? Students' achievement in some technical colleges may not be improved unless there is provision for ideal psycho-social workshop environment in which technical subjects will be best taught at technical colleges in Kaduna state.

Hence, the problem of this study is to identify the relationship between student perception of school workshop psychosocial environment and their achievement in some technical colleges in Kaduna state?

Research Questions

To guide this study, the following research questions were formulated:

1. What is the students' perception of the psycho-social environment of the school workshop in technical colleges?
2. How do students perceive the psycho-social environment of their school workshop in technical colleges?
3. What is the relationship between students' perception of their schoolworkshop psychosocial environment and their achievement in technical colleges?

Methodology

The study adopted a correlation survey research design. According to Nworgu, (1991) and Ali, (1996), this survey plan or design specifies how such data will be collected and analyzed since the study entails the collection of data from the respondents through the use of questionnaire to identify what relationship exists between two or more variables.

The study was carried out in three Government Technical Colleges located in Malali, Soba and Kajuru. The choice of the Colleges was taken for the fact that the institutions had the required maximum number of departments, workshops infrastructural facilities, teachers and students required for the study and located across the state.

The population of the study is made up of the entire 860 TS II technical students in the three technical colleges in the State. The TS2 technical students are chosen because, the researchers did not consider it appropriate to use fresher or students in examination class as such, TS2 looks more appropriate.

The sample for the study is 320 TS 2 students made up of about 95 from Government Technical College Soba and about 105 from Government Technical College kajuru, while 120 from Government Technical College Malali. The schools will be stratified into three homogenous groups of Malali, Soba and Kajuru Technical Colleges. Then simple random sample is used to select 3 departments from each stratum. The names of the departments in each group were written on pieces of papers and wrapped. Then 3 departments were randomly selected from each stratum or group. The importance of random sampling of subjects has long been recognized by researchers and statisticians. According to Burg, and Gall, (2007), the main purpose for using random sampling techniques is to compose a sample that will yield research data that can be generalized. One intact department from each of the selected technical colleges was used as part of the sample

The instrument used in collecting data for the study were structured questionnaire refer to as School Workshop Psychosocial Environment Questionnaire (SWESQ). Moos and Tricketts (2004), and grew out of a comprehensive programme of research involving perceptual measures of a variety of human environment. SWESQ: This is an adaptation of workshop environment scale (WES) as was developed by Rudolf Moos at Stanford University Fisher and Fraser (1991). According to Moos and Trickett (2004), WES is used for assessing workshop environment perception and is a nine scale dimension; the items in the questionnaire will be 40 in number modified to express the students' perception of their school workshop environment. The areas of modification are additions of instructional material control as a target subject since the developers did not specify any particular subject.

The SWESQ measured the following components of the psychosocial factor of a classroom environment.

- **Involvement** which measures the extent to which students pay attention to and show interest in the activities of the workshop.

- **Affiliation** which measures the extent to which students work with and come to know each other.
- **Teacher support** which measures the extent to which the teachers express a personal interest in the students.
- **Task orientation**, which measures the extent to which the activities of the workshop are centred on the accomplishment of specified academic objectives.
- **Competition**, which measures the amount of emphasis on academic competition within the workshop.
- **Order and organization**, which measure the emphasis within the school workshop on maintenance of order and the degree to which the activities of the workshop are well organized.
- **Clarity of instructions**, which measures the degree to which the rule for conduct in the workshop are explicitly stated and clearly understood.
- **Teacher control** which measures the amount and extent of rules governing student conduct in the workshop.
- **Innovation**, which measures the extent to which different modes of instruction and workshop interaction takes place in the workshop.
- **Instructional/ practical material control**, which measure the extent to which the students and teacher interact with their instructional materials. This became necessary because, interaction in the workshop was incomplete without instructional materials interactions.

The school workshop environment scale items (SWESQ) or draft instrument was subjected to face validation by two experts in the Department of Education Technical, Kaduna Polytechnic Kaduna. They were requested to ensure that the items were scrutinized for clarity and appropriateness of the language with regard to addressing the problem of the study. After face validation, comments and suggestions made by those validators helped the researchers to delete, modify and select the final item to be used in the instruments.

The instrument was first trial-tested on a representative sample of 30 TS2 technical students randomly drawn from two departments in Government Technical College Malali. These two departments were not included in the 9 sampled departments for this study. The trial-test helped the researchers to obtain data for the establishment of reliability index of the instrument which is 0.72. During the trial testing, students' responses to school workshop environment scale (SWES) were scored and used to establish the reliability co-efficient of the instrument.

Copies of the instrument were administered to the respondents by the researchers in person to avoid loss of the completed questionnaire. Also the researchers ask for the assistance of the technical teachers in collecting the students' cumulative scores for the 9 departments. Mean and standard deviation was used to answer the research questions 1 and 2, while Pearson product was used to answer the research question 3. The four-point Likert-type rating scale is used to rate the response of items

on the questionnaire. The mean of students score on each of the components were used to obtain a scale for analysis.

Table 1: Mean and Standard Deviation of Students' Perception of School Workshop Psycho-Social Environment

S/NO	ENVIRONMENTAL SCALE	MEANS (X)	STANDARD DEVIATION	DECISION
1	Involvement	2.6	.35	High
2	Affiliation	1.3	.26	Low
3	Teacher support	3.3	.67	High
4	Task orientation	2.5	.24	High
5	Competitive	2.8	.44	High
6	Order and organization	2.6	.04	High
7	Clarity of instruction	2.6	.28	High
8	Teacher's control	2.6	.64	High
9	Innovation	2.7	.22	High
10	Practical material control	1.1	.49	Low

N = 200

Table I above shows that the mean students' perception of teacher support, task orientation, competition, order and organization, clarity of instruction, teachers' control and innovation were greater than 2.5 and therefore will be regarded as high perception, while the mean students' perception of affiliation and practical materials control were less than 2.5 and therefore is regarded as low perception.

Table II: Mean and Standard Deviation of Malali, Soba and Kajuru Students' Perception of School Workshop Psychosocial Environment of their School Workshop

S/NO	WORKSHOP ENVIRONMENT SCALE	MALALI (MEAN)	SD	SOBA (MEAN)	SD	KAJURU (MEAN)	SD
1	Involvement	3.8	.98	3.9	.17	4.5	.47
2	Affiliation	1.5	.76	1.3	.23	1.5	.11
3	Teacher support	4.5	.90	4.7	.45	5.4	.46
4	Task orientation	2.8	.88	2.8	.89	2.9	.32
5	Competitive	3.3	.13	3.6	.50	3.8	.05
6	Order & organization	3.5	.80	3.8	.96	3.8	.05
7	Clarity of instruction	3.5	.79	3.2	.98	3.0	.44

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8	Teacher's control	3.4	.61	2.9	.51	2.7	.07
9	Innovation	2.6	.28	2.9	.74	2.8	.54
10	Practical material control	2.0	.34	1.5	.69	1.7	.78

N –Malali =120, N-Soba =95, N-Kajuru =105

From the above table II, shows that the mean student's perception of teacher support, task orientation, competition, order and organisation, clarity of instruction, teacher control, and innovation for both technical students' were greater than the decision rule of 2.5 and therefore high. While the mean students' perception for practical material control and affiliation for both technical students were less than the decision rule of 2.5 and therefore is considered as low perception.

Table III: Pearson Correlation Coefficient of Students' Perception of their School Workshop Psycho-Social Environment and their Achievement in some Technical Colleges

	Perception	Achievement
Perception	1	0.26
Achievement	0.26	1

From table III above, it was observed that the relationship between psycho-social school workshop environment and students' achievement was positive. That is to say that psycho-social environment may have contributed to the variation in students' achievement.

Major Findings

The major findings outcome of the data analysis are identified and noted below:

1. Students have a high perception for their school psycho-social workshop environment.
2. There is little or no relationship between the ways in which both technical students (malali, soba and kajuru) perceive their psycho-social school workshop environment.
3. It was observed that the relationship between psycho-social school workshop environments was positive. That is psycho-social environment may have contributed to the variation in students' achievement.

Conclusions

There was a high perception of psycho-social environmental factors by students in both technical colleges. But does not contribute to their achievement in some technical colleges, if there was any variance, if may be due to other factors of workshop environment. There is a slight difference in students' achievement in some technical colleges due to psycho-social school workshop environment. Perception of psycho-

social school workshop environment is not a predictor of achievement in TS2 in some technical colleges in Kaduna state. Although there was a slight difference between the mean perception scores of the malali, soba and kajuru technical students for each psycho-social workshop environment scale. The correlation between students' achievement in these technical colleges and the perception of psycho-social school workshop environment is low and therefore insignificant. Although some of the students' perceptions of psycho-social school workshop scale were moderately high, they do not have a direct effect on achievement.

Therefore, the poor achievement of student in some technical colleges in Kaduna state may be due to other environmental factors of the school workshop and not the psycho-social factors.

Recommendations

Based on the findings of this study and their implications, the following recommendations were made:

1. The teacher should endeavour to create conducive and stimulating atmosphere for the entire school workshops irrespective of the location.
2. The professional status of the teacher should be greatly improved through seminars and workshops organized by the state, federal ministries of education and states National Board for Technical Education to inform teachers on the type of school workshop practice in which technical subjects should be taught
3. The welfare of the teachers should be enhanced by way of better conditions of service as one of the many ways of motivating them to perform at their best in the school workshop.

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