

## **Service Learning and School-To-Work Processes of Arts and Science Students: A School-Society Link in Niger State of Nigeria**

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### **Abstract**

*The study examined the benefits inherent in the involvement of Service learning and School-to-work processes at the secondary school to the society. 4 research questions were addressed in the study. A quasi-experimental research design was adopted and a sample of 210 was purposively selected from the population of senior secondary school of Arts and Science students. Two instruments: Learners Attitudinal Scale ( $r = .73$ ) and Community Expected School Goals ( $r = .78$ ) provided data for analysis in addition to students' grades. Data generated were analysed descriptively through computation of %,  $\bar{X}$  and SD. Results showed that the involvement of SL and STW processes revealed the critical links between school and society; SL and STW processes fostered students knowledge and skills acquisition; the preferable age range for students preparation for SL and STW is 14-16 years. The findings prompted the researchers to recommend among others that students should be motivated to stay in school while promoting SL and STW partnership; SL and STW partnership should be integrated into institutional curriculum for implementation in order to help inculcate relevant and situated knowledge in learners. It was concluded that if SL and STW processes are adopted into school curriculum, it would provide a searchlight into appropriate learners' career.*

**Keywords:** *Fields of study, Knowledge, School-to-work, Service learning, Society.*

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### **I. Introduction**

The aim of the Federal Government of Nigeria in the National Policy on Education (NPE) which posited that "Education in Nigeria is an instrument par excellence is meant for ensuring national development" (FGN, 2004; 2008; 2014). The positions and functions of any level of educational institution especially secondary education in Nigeria is therefore required to be treasured significantly with regards to an overall intellectual development. Such level of education is guided by the various subjects' curricula of which the contents hung on over all development of the learners in order to be useful to themselves and the nation in general. This is why it is emphasized by the Nigerian Educational Research and Development Council (NERDC, 2007) in all the disciplines that the learners should be well grounded in the subject matter, the philosophy and purpose of the curriculum".

In order to meet the aspirations of the Federal Government with respect to the objectives stated in the National Policy on Education, the relevance of the skills required by the society inculcated by the school and the learners' intellectual dispositions are very vital. For these to be actualized there is the need to examine the students' preference to the needs of the society at the secondary school in order to ascertain their competence and readiness for more rigorous higher academic pursuits and social life encounters. By 1994, the Manpower Demonstration Research Corporation as presented by Pauly, et al (1994) has succinctly enlisted nations that have ventured into the adoption and application of specific models on learning by doing. The struggles of some advanced nations in linking the society to the school or vice versa is assumed unequivocally that a dual school-society link model of service learning and school-to-work transition would provide the solace required for Nigeria secondary school attendees to realizing the same aspirations.

Service-learning has been viewed by the National Center for Service-Learning through three key characteristics which include: Service-learning as constituting activity that focuses on meeting the need (well-being and environment) of every individual in the community; identification of key academic and or civic objectives to be achieved by combining service with learning prior to the activity; and the incorporation of specific academic or civic objectives into the activity to provide opportunities for students to reflect on their experience and its connection. Furco (2002) revealed that "Service-learning seeks to engage individuals in activities that combine both community service and academic learning; and since service-learning programmes are typically rooted in formal courses (core academic, elective, or vocational), the service activities are usually based on particular curricular concepts that are being taught." It has also been recognized that "Service-learning

is a teaching method which combines community service with academic instruction as it focuses on critical, reflective thinking and civic responsibility; and that Service-learning programmes involve students in organized community service that addresses local needs, while developing their academic skills, sense of civic responsibility, and commitment to the community.”

Similarly, School-to-work transition programme which focuses on the provision of vocational rehabilitation services to eligible and potentially eligible high school students with disabilities was designed for those who are interested in employment after leaving high school. It was aimed at a smooth, seamless transition from high school to post-high school career development and or employment. ILO as cited in Matsumoto and Elder (2010) outlined in clear terms that “school-to-work scheme serves a number of purposes which include: detects the individual characteristics of young people that determine labour market disadvantage; identifies the features of youth labour demand, which help determine mismatches that can be addressed by policy interventions; and serves as an instrument to generate reliable data for policy-making and for monitoring progress towards the achievement of MDG1 in countries where the labour market information system is not developed”.

It is obvious that those who engage in Arts and Science education have distinctive functions to play in the struggle for the attainment of sustainable national goals in any country globally. The place of the contributions of secondary education at ensuring strong, crucial and gradual structuring of a nation’s development would need to be handled with serious attention. The culture at the secondary school level is that which reflects specifically some miniatures of the immediate environment of the learners as they develop. It behooves the school to establish a bridge between the child’s background and the school environment. Many Nigeria children in the public schools would require an extra-ordinary attention to become grounded in the content of the curriculum especially with regards to their relationship to the demands of the society.

### **1.2 Statement of Problem**

It is not sure if the students produced from the secondary institutions nowadays have the prerequisite skills to contribute to sustainable economy in environmental protection and job creation among others. It will not be out of place to assume that a multiple of factors confluence forces against adequate accomplishment of Nigeria students in this regards. If students are not well grounded in basic knowledge and skills, the students as learners would find it difficult to assume and withstand futuristic challenges reliably with the bases for life endeavours. If the school activities are not linked with that of the society from the secondary school level, it is obvious that there cannot be any legitimate benefit the learner stands to tap from the society and vice versa. Findings on school-to-work programmes hitherto only focused on descriptions of programmes rather than on measurements of outcomes and their impact in addition to the short time interval involvement for students to progress through the programme and provide evaluative data. This is why the study was planned to dig into the adoption of service learning and school-to-work processes at the secondary school to help the school identify the actual needs of the society through the regular feedback which these models can provide and the students to have a career.

### **1.3 Research Questions**

Four research questions were answered in this study:

- (a) To what extent would Service learning (SL) and School-to-work (STW) transition develop in the learners sense of civic responsibility?
- (b) How would Service learning and School-to-work processes affect the academic achievement of secondary school Arts and Science students’?
- (c) What could be the preferred age group for students preparation phase for service learning and school-to-work processes?
- (d) To what extent does the society benefit directly from the school output?

### **1.4 Scope and Significance of the Project**

The study covered the treatment of concepts in Arts and Science Curricula conventionally in the Secondary schools for a term. It mainly involved the adoption of Service learning and School-to-work processes for the intellectual development of the secondary school students. Similarly, the needs of the society and how far the school is providing such needs were examined.

The findings of this study was assumed would reveal the extent to which the Arts and Science curricula could be better tailored towards societal needs and enhancement of the learners achievement with specific models in Nigerian institutions of learning as they could serve as a predictor of national development.

## **2.1 Conceptual Framework**

The assumption which stipulates that engagement in community service may cause changes in social reality is of paramount consideration since service learning belongs to the tradition of radical and or critical pedagogy (Clayton, Bringle, & Hatcher, 2013). It is equally possible to relate service learning to the 1972 Freirean concept of educational praxis; this being so because “it links concrete experiences to abstract theoretical concepts and broadens the perception of power and change” (Peters, 2015).

From historical perspective, it is known that service learning encompasses the broad context of social issues, various responses to those issues, and efforts to address the issues. Service learning rests conceptually on dialogue and so becomes a precondition for the formation of partnerships between teachers, students, and communities. Usually service learning is placed under the same umbrella with student volunteerism. Nonetheless, the concern of volunteerism is on the type of service which is provided and the benefits to the community, whereas it is the tenet of service learning to put equivalent focus on students and the community. It is the active civic participation in service learning that distinguishes it from various forms of active learning which might include field studies, internships, or problem-based learning.

There is no doubt that people mix school and work from early adolescence through adulthood. This is the reason behind “school-to-work” which basically implies that “peoples' lives are divided into distinct sectors of education and training in preparation for the work world”. Interestingly, snowballing data suggest that the present structure of education may synchronically deviate from the needs of employers and the necessary skills graduates need to succeed. This shows therefore that school-to-work transition is a process that young people go through when they leave school. Experts thus advocated that school-to-work system should incorporate indispensable requirements such as: work-based learning and school-based learning.

## **3.1 Methodology**

The research is a longitudinal study in which the researchers adopted a pretest-posttest non-randomized control group, quasi-experimental design. The research population targeted for the study comprised estimated 3,310 Arts and Science students of senior secondary education in the Zone C of Niger State of Nigeria (Niger State Ministry of Education, 2019). A multi-stage sampling procedure was adopted. The sample for the study was selected from Zone C on purpose which comprises 7 local government areas. The local government headquarters were purposively selected and a school was selected at random from each. Four (4) of the schools were randomly assigned to the experimental and the other three (3) to the control groups respectively. A sample of 124 Arts and 86 Science (ie, 210) students participated which according to Sambo (2008), “when a researcher intends to obtain an estimate with a 5% margin of error ( $\epsilon$ ) and one chose the variance ( $\sigma^2$ ) of the population to be no more than 0.5, a formula:  $n = \sigma^2/\epsilon^2$ ” was applied for which resulted into 200.

Learner Attitudinal Scale (LAS); Community Expected School Goals (CESG) and students' grade were used for data generation in the study. Learner Attitudinal Scale (LAS) was made of 10 items soliciting responses ranging from ‘correct’, ‘partially’ to ‘not at all’ towards the attitudinal dispositions of learners with regards to the package while Community Expected School Goals (CESG) concerned itself with a 10-item on ‘benefits of school-to-work processes with ‘correct’, ‘partially’ and ‘not at all’ response options. LAS and CESG underwent validation by presenting a copy each to three experts in test and measurement, entrepreneurship and civic education. Since reliability coefficients are based on correlation, the three experts' ratings were subjected to scorer analysis to ascertain the reliabilities of the instruments for which the index for LAS ( $r = .73$  and CESG ( $r = .78$  respectively. These indices affirmed the assurances according to Sambo (2008) that any index that fall within a range of .5 to .9 for an instrument indicates that it is reliable for generating the data collated for a study.

All students were pretested and thereafter exposed to some concepts in their fields of study by their teachers (research assistants) in the second term of 2018/2019 academic session. Whereas the experimental group participated in different skills acquisition after school hours under selected entrepreneurs in the local government headquarters selected for the study, the control group did not. The research team and the research assistants were involved in the application and assessments of the models on the sample for a reliable data source. The statistical tools employed to analyse the relevant data generated were purely descriptive. The devices for managing this project were in four stages as outlined in the activity indicators. The principal researcher delegated duties to team members and ensured compliance to roles with time at each stage. All required documentations were made in bits into the data base but produced and distributed to research partners for deliberation and refinement at every stage to the end.

## **4.1 Results**

### **4.2 Research Questions (RQ)**

**RQ1:** To what extent would Service learning (SL) and School-to-work (STW) transition develop in the learners sense of civic responsibility?

**Table 1: Frequency/Percentage response on SL and STW Processes between School and Society**

S/N	Item	Correct		Partially		Not at all		Decision
		Freq	%	Freq	%	Freq	%	
1.	You can examine your experiences critically and articulate specific and actionable learning outcomes	77	64.17	30	25.00	13	10.83	Correct
2.	There is opportunity for you to construct learning and responses are immediate and uncontrived with service learning	67	56.78	40	33.90	11	9.32	Correct
3.	You learn partnership strategies to identify and develop each community's unique strength	79	65.83	36	30.00	5	4.17	Correct
4.	service learning influence your career's path and enhance your civic responsibility	71	59.17	39	32.50	10	8.33	Correct
5.	Service learning helps you to build relationships, solve problems, value a sense of community and gain self-awareness	71	59.3	40	33.33	9	7.50	Correct
6.	Service learning enables you to demonstrate success both academically and interpersonally	54	46.55	58	50.00	4	3.45	Partial
7.	Service learning foster development and sense of caring for others	85	70.83	30	25.00	5	4.17	Correct
8.	Community service and academic study strengthen each other	56	46.67	54	45.00	10	8.33	Partially Correct
9.	The interaction of knowledge and skills with experience is key to learning	87	72.50	28	23.33	5	4.17	Correct
10.	Service learning opportunities address concerns that are identified and articulated by the community	86	71.67	32	26.67	2	1.67	Correct

On table 1, the respondents chose correct response for items 1 to 5, 7, 9 and 10. This was indicated by the highest percentages computed from the frequencies of their responses on each of these items. A partial response was registered on item 6 while item 8 produced a partially correct response. The highest frequency of correct responses on the items therefore illuminated the extent of the involvement of SL and STW transition on how they could help learners develop civic responsibility in Nigeria.

**RQ 2:** How would Service learning and School-to-work processes affect the academic achievements of secondary school Arts and Science students'?

**Table 2: Pre and Post Mean ( $\bar{X}$ ) Scores of SL and STW Processes impact on Students' Academic Achievements**

Group	Statistics	Field study	
		Arts	Science
Experimental	N	76	44
	pre $\bar{X}$ (SD)	23.92 (4.061)	22.62 (3.603)
	post $\bar{X}$ (SD)	26.53 (3.974)	24.41 (5.316)
	$\bar{X}$ Gain	1.61	1.79*
Control	N	48	42
	pre $\bar{X}$ (SD)	17.93 (3.579)	18.53 (3.446)
	post $\bar{X}$ (SD)	18.60 (3.282)	19.46 (4.421)
	$\bar{X}$ Gain	0.07	0.08*

=>SD in parenthesis & higher Mean gain asterisked (\*)

Table 2 displays a low pre and higher post mean academic achievement scores of students on the basis of field of study, the Arts students in the experimental group had a higher post mean score of 26.53 while those in Science had 24.41 but those in the Science field of study had a higher mean gain of 1.79, whereas the Science students in the control group had a higher post mean score of 19.46 while their Arts counterpart had 18.60 with just a mean gain of 0.08 which is also far less than those in the experimental group. This showed that SL and STW processes did not interfere with students' cognition rather improved the interaction of their skills and knowledge.

**RQ 3:** What could be the preferred age group for students preparation phase for service transition processes?

**Table 3: Students Age Preference for SL and STW Processes Preparation**

Statistics	Age Range by Students attitude		
	14-16	17-19	20-22
N	58	45	17
$\bar{X}$	14.29*	14.20	13.31
SD	1.943	1.978	1.401

=>Higher Mean asterisked (\*)

Table 3 shows the mean scores for the preferred age range for preparation of students for SL and STW processes between Arts and Science students in senior secondary school. As outlined by students' attitude, students in the age range of 14-16 had the highest mean score, followed by those of 17-19 years and least for those in 20-22 years. This implied that the preferred age group for students preparation phase for Service transition processes was 14-16 years.

**RQ 4:** To what extent does the society benefit directly from the school output?

**Table 4: Extent to which the Society Benefit from School Output**

S/N	Benefits	Correct		Partially		Not at all		Decision
		Freq	%	Freq	%	Freq	%	
1.	Provides critical and creative learning	98	81.67	16	13.33	6	5.00	C
2	Permits deep reflection	96	80.67	21	17.65	2	1.68	C
3.	Allows laudable communication	66	55.93	47	39.83	5	4.24	C
3.	Allows laudable communication	73	63.48	37	32.17	5	4.35	C
4	Supports collaboration among teacher, students and community	77	64.17	36	30.00	7	5.83	C
5	Strengthens information literacy	88	75.21	26	22.22	3	2.56	C
6	Boosts social skills	84	70.59	29	24.57	6	5.04	C
7	Focuses on satisfying a genuine need in the community	88	73.30	27	22.50	5	4.17	C
8	Places students in real-world situations and experiences	81	67.50	35	29.19	4	3.33	C
9	Enables self education	63	55.26	49	42.98	2	1.75	C
10	Help to discover organizational needs and classroom supports	73	60.83	41	34.17	6	5.00	C

From Table 4, it is clear that all the items had highest correct response frequency and percentage computation which implied that all identified conditions served as benefit to the society due to the influence of SL and STW process of the school.

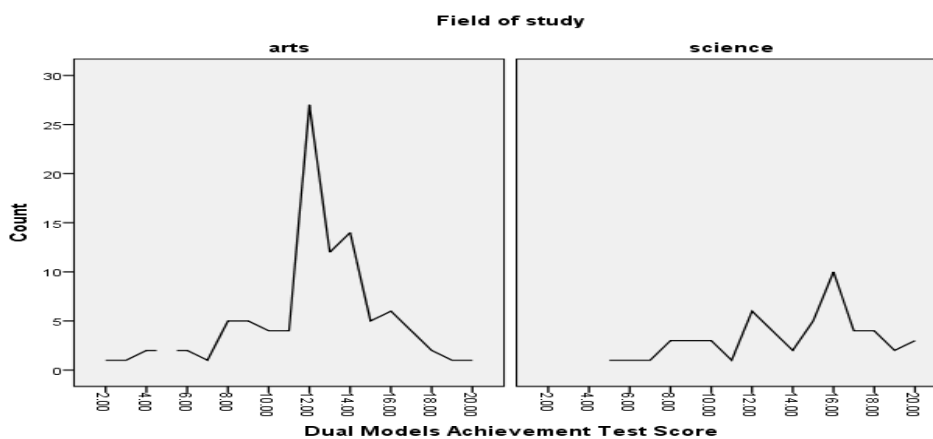
### 5.1 Discussions

The result in this study of highest percentages of correct responses on the items on table 1 implies that students in the senior secondary school in Nigeria can examine their experiences critically and articulate specific and actionable learning outcomes by themselves. It was equally possible for the students engaged in SL and STW processes to construct learning and responses which were immediate and uncontrived with SL. They were able to learn partnership strategies to identify and develop each community's unique strengths. The finding also showed that SL and STW processes influenced students' career's path and enhanced their civic responsibility. SL and STW processes helped them to build relationship, solve problems, value a sense of community and gain self awareness. SL and STW processes could foster development and sense of caring for others among the students and the community.

It was found that through SL and STW processes interaction of knowledge and skills with experience is key to learning. Likewise SL and STW processes opportunities addressed concerns that were identified and articulated by the community. However, SL and STW processes could not permit the students to some extent to demonstrate success both academically and interpersonally just as it was not distinguishably possible for the students to strengthen community service and academic study adequately. This result revealed the extent of the involvement of SL and STW transition on how they could help learners develop civic responsibility in their communities. Finding from the study of Wentling et al. (1990, 1991) on a tech-prep programme in Wayne Township, Indiana, showed statistically significant differences favoring tech-prep students on a career maturity inventory and on attitudes toward technological careers when compared to "general track" students. If Nigeria secondary education must adapt effective and productive SL and STW processes or the apprenticeship systems

like those in some European countries, new programmes and major changes in the way education, business, and employment systems work and relate to one another must be accorded utmost priority.

The findings on the impact of SL and STW processes on senior secondary school Arts and Science students' achievements signaled a dependable hope. The post test mean score of those in the Science field of study reveal a higher mean gain of 1.79 over those of Arts in the experimental group, the mean gain of 0.08 was registered in the control which is also far less than those in the experimental group. This outcome showed that students in the Science field of study had an advantage over their Arts counterparts. These findings indicated that SL and STW processes did not hinder or have any devastating effect on the academic achievement of the students in the experimental group since they had better learning outcome at the post treatment and of better standing over those in the control. Similarly, the deductions are buttressed by the pictorial representations in figure 1.

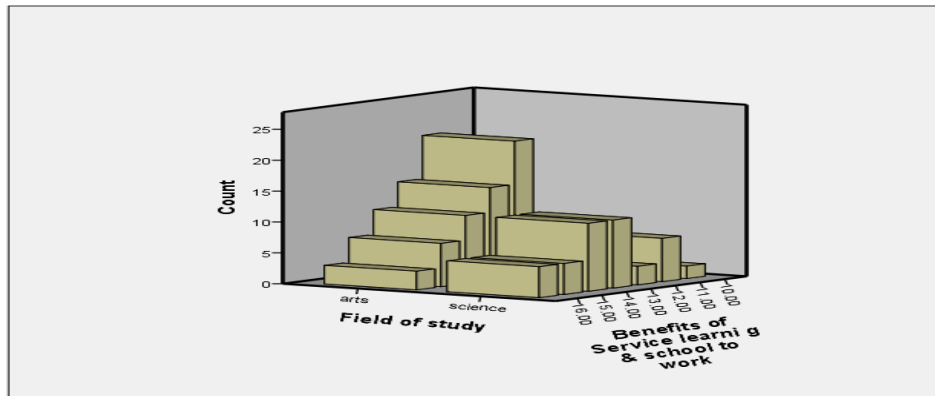


**Figure 1:** Impact of SL & STW by Field of Study

The impacts of SL and STW processes as found in this study are replica of the findings of Kraft and Krug (1994) about “Service Learning which was viewed as a teaching and learning methodology that connects classroom curriculum with identified community issues and needs. The model examined in this study provided the achievement of course learning objectives and made meaningful contributions to the areas of need identified by the community being served. The model required deep reflection as Eyler and Giles (1999, p. 171) had observed that “reflection is sometimes described as the hyphen in service-learning which links and ties students experience in the community to academic learning”.

Consideration for the best age to prepare students for SL and STW processes favoured those within 14-16 years to achieve better and least for those between 20-22 years. There is much disagreement about who should be “targeted” for participation in STW programmes. This was conceived out of the assumptions about vocational education, low-achieving students, and programme effectiveness where it is being practiced. Despite that selection into STW programmes can be based on high achievement, low achievement, a first come-first served policy, or some other entrance criteria, three issues according to the Manpower study are related to the question of who should be served: (1) what works for which kinds of students, (2) the stigma associated with “vocational education,” and (3) who should have access. To circumvent such issues MDRC research has offered some solaces in which targeting may involve at least three activities such as: eligibility rules by communicating clearly to stakeholders about who has the opportunity for admission; marketing for which outreach efforts to recruit students is considered by shaping the way the programme is perceived and developing a pool of students as possible candidates; and self-nomination that has students volunteer, based on their own interests, to participate in the programme.

As revealed from the result on table 4, it is singularly clear that SL and STW processes provided the participants with critical and creative learning which culminated into deep reflection. With SL and STW processes, it was possible for the learners to communicate laudably and possibly permits supports, collaboration among teachers, students and community. In addition to strengthening information literacy, SL and STW processes boosted students social skills while focusing on satisfying a genuine need in the community. With SL and STW processes, students were placed on real world situations and experiences which assisted them to discover organization needs and classroom supports as pictorially buttressed in figure 2.



The relevance of education systems to effectively address the economic and social requirements of countries is of major concerns to all nations internationally (OECD, 2005). Pavlova (2009a, b) in consonance has noted that “uncertainty about whether skills for employment, and the other areas of expertise needed to navigate new complex social and political realities, have been addressed by traditional curricula in secondary schools and are pivotal concerns”. Some of the policies adapted by governments to deal with such concerns have been identified as: an assurance concerning curriculum flexibility and quality across the different programmes offered; the engagement of different, multiple stakeholders; career guidance; matching programmes to adequately meet the needs of both students and the labour market; and attempts to guarantee equity. It is expedient therefore that a set of policies be adapted by governments to “promote development of skills required for post-secondary education or for entering the labor market” (OECD 2015, p. 57).

## 5.2 Recommendations

- Students or Youths should be motivated to stay in school while promoting Service learning and School-to-work partnerships.
- Education policy should provide universal transition system that enables youths to identify and achieve “productive and rewarding work.”
- SL and STW partnerships should be integrated into institutional curriculum for implementation so that it could bring about positive impacts on students ability to develop relevant and situated knowledge.
- The National policy on education should make provision for School-to-Work Opportunities that shall establish a broad framework which could authorize states and localities to access TETFund money for the implementation of school-to-work systems that can lead to high-skill, high-wage career paths as well as increase opportunities for higher education for all students.
- Government should enact a law aimed at expanding opportunities for all students which permits the provision of the development of skills requisite for entering labour market for them to be able to transform workplaces into “active learning environments”

## 5.3 Conclusion

The call by UNESCO for an overarching global education goal aimed at achieving just, inclusive, peaceful and sustainable societies was meant to “ensure equitable quality education and lifelong learning for all by 2030” which service learning and school to work stand for. This is a goal that all governments are expected to respond to by developing specific strategies to help achieve global targets in support of quality Education for All by that 2030. This could be conceived to mean a “particular agenda for the global education community in terms of research and the analysis of issues and challenges, associated with this agenda”. Lifelong learning encompasses all learning activities undertaken by individuals throughout life, with the aim of improving knowledge, skills and competencies within a personal, civic, social and/or employment-related perspective. This is why SL and STW processes become fundamental in providing a searchlight for the later years of young minds possible career.

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