

# Consolidating and Sustaining School Industry Partnership in Technology Education

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## Abstract

School with industry partnership is recognized by developed nations as a way for national development even in Nigeria as a developing nation recognizes that school – industry partnership is a matter of must hence the introduction of Student Industrial Work Experience Scheme (SIWES) in 1975. This paper described this link as a system by which educators and industrialist interact and exchange ideas on issues boarding the training needs of the changing society. Improved links between technical education and industry would benefit both sectors, the students receive better training and occupational experiences, the employer gains access to better-trained potential employee and enhances economic development of the nation. This paper described the problems and issues on school – industrial relationship. Suggestions and recommendations that will help to encourage partnership between school and industry were proffered to facilitate national development in Nigeria.

## Introduction

Technical education with industry partnership has been recognized by both developed and developing nations as essential tool for qualitative educational programme. It is one of the most important mechanism, not only for change in education system, but also for social and economic change, Japan, Britain and United States of America (USA) just to mention a few, integrated partnership activities into their technical education system. In USA for example, the vocational education act of 1963 established the policy of involving the private sector (industry) in vocational education planning through national, state and local advisory council. In spite of the recurring debate on partnership efforts in both national and international conferences, little or no impact has been perceived in the Nigerian Technology Education Scene. If technical education is to be meaningful and relevant for young people, relationships are needed between schools and industries. The new intensity to technical education and industrial debate has been largely due to the inescapable fact of our economic problems and some of the easily recognizable failure of the education system. The failure of the system may be attributed to haphazard implementation of the National Policy on Education (1981). The depressed economy led to lack of financial resources for schools, lack of equipment and tools, dilapidated infrastructure, obsolete tools and equipment (Njoku, 1995). In addition, authorities have problem in recruiting and retaining competent technical education teachers who are pivot of any successful educational programme. The need to improve technical education with industry partnership therefore became imperative. Partnership of technical education and industry could remain different things to different people. Mish (1989) defines it as to work jointly with others especially in an intellectual endeavour. Summer (1991) describes it as “to work in association”. Some people may regard it as collaboration, and to others it



may mean co-operation. Whatever perspective one looks at it, the most important thing is the end result of each link. Partnership provides avenue where educators and industrialist interacts and exchange ideas on issues bordering on the training needs of the changing society. It could be concluded that it is forum where employers and educator can work together to improve the education and employce experiences and prospects of students.

However, industrial, technology or technical education has been accepted by most writers like Ajeyalemi (1990) to mean developing practical skills, as well as the creative and innovative abilities of students as well as enhancing and facilitating their problem solving in decision-making skill. In Nigeria, partnership activity is not a new idea. It has been with us since the country was aware of the importance of technology or industrial education (after Ashby's report of 1960). This become pronounced in 1971, though being operated with laxity and non – challenge. As a result of this development, Agburu and Obande (1995) observed that qualitatively and quantitatively the private sector's contribution on the aggregate to industrial development is below reasonable standard.

The findings of Industrial Training Fund (1971) maintained that the industrial work experience scheme designed by the ITF is to encourage close partnership between school (education) and industry. It will also make students of higher institutions of learning to receive practical on the job training in industry compatible with their area of study. The establishment of ITF by the Federal Government is to encourage close partnership between education and industry. In other words, it is liaises body that co-ordinates the activities between institutions and industries. One importance of the scheme is the Student Industrial Work Experience Scheme (SIWES) the way in which students in some selected fields are given industrial orientation for a three or more months prior to graduation. The National Board for Technical Education (NBTE) in coordination with industry takes care of the curriculum and syllabus in technology education. These are two pronounced type of partnership activities or practices in Nigeria industrial education system.

The obtained effect of this programme is far from the preferred for the reasons that emanates from lack of good relationship between the school and industry. There seems to exist a wider gap between the two institutions such that there is no perfect blending in their efforts to ensure effective and full relation of the goals for better cooperation between the schools and industries during attachment. According to Okafor (1991) the programme that can align curriculum with actual business practice and keep the work force current in this country (Nigeria) is a cooperative vocational educational programme jointly developed by the school and industry. To be able to improve the worth of this programme, the planners should seek to identify the usefulness, areas of fault and areas that need to be amended to achieve a positive result in the programme by regular feedback from the students' industrial based supervisors and the school supervisor.

In his conclusion, Sharman (1983) says that links between education and work should be strengthened because they will help to improve the quality and increase the relevance of the training that technical education students receive. According to Ajeyalemi and Bayelo (1990) technical education in Nigeria is the same thing as technology or industrial education. Therefore the aims of technical (technology or industrial) education includes to provide trained manpower in applied science, technology and commerce particularly at such professional grades and skills necessary for agricultural, industrial, commercial and economic development (FRN, 1981).



### **Benefit of Technical Education with Industry Partnership**

In partnership, efforts must be demonstrated to be advantageous to all involved in the business. Partnership improves the education and training of future workers, it benefits society by increasing the worker's productivity and enhancing economic growth. Industrial education and training are improved by partnership with industry in four ways:

- (i) with and from the private sector (industry), institutions can gain access to better, up – to – date equipment and can then modify their curricular accordingly in order to train students in up – to – date job skills.
- (ii) through partnership and sharing of information, institutions can prepare students for jobs that are likely to be available when the students graduate.
- (iii) students who have contact with employer through this institutional programmes are likely to develop positive work habits and may find it easier to get jobs once they graduate.
- (iv) through their supervised work experiences, students established an employment record that may help them get jobs.

### **Improvement of Partnership**

The real aim of technical education should be to establish such a relationship between institutional instruction and the occupations of life such industry has to prevent any break in the continuity in passing from one stage to the other (Lecsson, 1982). To realize the said aim, there is need to involve the industry in training of the youth. Technical education with industry links will make the realization possible in many ways. It will provide an opportunity to discuss the content of the curriculum. The employers can be taught important lessons about the nature of educational process. The industry too can educate teachers about rapidly changing economic and social conditions, which influence what goes in institution. Resources from industry can be a valuable aid.

Ighedo (1995) recalled that since a major objective of vocational technical education programme is to provide business and industry with a pool of adequate and well-trained technical manpower. The cooperation of industry is therefore essential for the attainment of programme objective.

### **Initiating Partnership Venture**

Partnership ventures are like any other human endeavour in that their success depends on the individual involvement. However, many techniques could be used to link or establish co-operation. Proper structural feasibility study could be used. Such studies have the potential of ensuring job placement of programme, and thus enhances public acceptance and support, stimulate and sustain students' interest and also guarantee the future of industrial education. Furthermore, one could begin with an approach to a firm to provide, for instance, help with computer education or scientific or technical facilities and expertise. The link might then spread to other areas of the institution.

### **Problems and Issues of School – Industrial Relationship**

Despite the points that can be raised to support the SIWES programme in Vocational Teacher Education. Its full implementation has been with some attendant problems which tend to inject traits of setbacks to its viability and effectiveness in accomplishing its lofty objectives. These problems which are very critical and extensive militate against the full realization of these goals.

**Inadequate equipment:-** Most of the industries which students are attached do not possess well equipped workshops where the students can acquire the much needed skills



and attitudes. The industries that were supposed to act as alternative training place for the school is not performing its roles as some of them are still living in the past glossed with faulty and obsolete equipment. Patterson (1994) in his contribution, said to be able to marry theory with practice a well-equipped workshop cannot be exaggerated.

**Duration of the SIWES Programme:-** The attachment period for students especially in colleges of education which is eight weeks per session is considered too short and inadequate. Apart from being too short for any meaningful learning, it does not allow the students time for mastery considering the vastness of the experience and skills they are expected to acquire. The brief period of stay does not gladden the industries who are depending on these attachée to fill some of its positions where skilled staff are lacking.

**Lack of Theoretical Knowledge:-** Most industrial personnel have practical knowledge but cannot blend it with the theory on the course of SIWES programme supervision. It was observed that most of the technical personnel in the industries assigned to train the students are very skilled with wide range of experience in the field but could not transfer the knowledge appropriately to the attachée, thereby blending theory with practical. Is there anything that the industry and school could do in cooperation to serve or reduce to the minimum this problem?

**Student Supervision:-** Most of the industries frowned at the fact that schools abandoned students attached to them without supervision. These make the students to be less integrated in the programme thereby turning deaf ear to what they were supposed to acquire rather taking it as partial fulfillment of his certificate. This has forced some industries to handle them with a loose hand.

Finally, one can initiate this type of partnership by requesting an industrialist who is a specialist in an occupational area to lecture the students on special days such as career days or industrial week.

### **Conclusion**

Technical education with industry partnership is one of the most important mechanisms, not only for change in education system, but also for social and economic change. It is understood that the country is facing an unbearable economic recession. Schools are starved of funds, inadequate equipment, tools, materials and lack of qualified teachers. Consequently, it is very important to be aware of the contents and purpose of technical education with industry partnership if cordial relationship between school and industry must be enhanced.

### **Suggestions for Partnership Improvement**

The improvement and sustenance of industrial education with industry links depends on the active participation of both parties on the other hand, and the government in the other hand in terms of policy implementation. The following suggestion are preferred to help improve and sustain technical education with industrial links on partnership:-

- (i) the government should establish mechanisms and incentives to induce educators and employers to work together in the planning and provision of occupational education and training.
- (ii) the state ministry of education should establish a liaison office in the state headquarters. The office should be liaising with ITF and National Board for Technical Education (NBTE) on issues bordering on technical education and industry co-operation.
- (iii) An effective and efficient communication system must be established which will facilitate co-ordination, planning, and control of industries and institutions particularly in the activities carried out by the students.

- (iv) Evaluative study should occasionally be carried out on partnership activities to ascertain its effectiveness, and shortcomings.
- (v) the government should legislate an industrial training to persuade and if possible compel industries to be involved with partnership activity. Such tie should be mutually beneficial. Industry should not only provide training and funds, but should encourage partnership in the new areas of considerable praise of viability.

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