

Strategies for Enhancing Clothing and Textiles Industrial Work Experience among Special Needs Students in Nigeria

Idowu Jamiu Diyaolu and Adebola Babatunde Ekanola

Introduction

The Students' Industrial Work Experience Scheme (SIWES) is a long-established programme to advance graduate employability, foster skill development and support practical readiness for the workforce. These goals are often realised through Higher Educational Institutions' (HEIs) partnerships with industries, integrating real-world labour market experiences into academic settings. Such collaborations aim to cultivate an entrepreneurial mindset among graduates, equipping them to drive economic progress (OECD/EU, 2017, pp. 93-112). Universities, Colleges of Education and Polytechnics employ SIWES to train learners to do real work that employees do to earn income through apprenticeship, traineeship, internship, as well as on-the-job training (European Training Foundation, 2017). SIWES plays a significant role in bridging the gap between theoretical knowledge and practical skills, which are essential for employability. It enhances entrepreneurship skills, which can lead to self-employment and job creation, an alternative to traditional job acquisition (Auru & Wakili, 2020; OECD/EU, 2017, pp. 93-112).

Persons with special needs (PSN) such as those with hearing, visual, or mobility impairment, have talents just as their able-bodied counterparts but are usually given poor attention in training thereby limiting their efficiency. They are also faced with the challenge of marginalisation in the labour market. PSN in Nigeria therefore need to enjoy inclusive education that can make them stand out in their chosen career and get integrated to well-paid jobs after graduation. Technology exists to aid the training of PSN and improve their skills and technical know-how. Through assistive and adaptive technologies, PSN can do what able-bodied persons can do, at times even better. For instance, someone without legs can move about, drive, sew clothes, knit and weave. PSN therefore, with the right assistance, can achieve labour market or entrepreneurial success through vocational training.

In Nigeria, Vocational Technical Education (VTE) seeks to maximise the talents of PSN in ways that would enable them meet present and future socio-economic needs (National Board for Technical Education, 2017). The 2030 Sustainable Development Goals (SDGs) supports VTE, giving it an unprecedented profile on the international stage. VTE in tailoring, fashion designing, weaving, knitting, tie-dye, furnishing, leatherwork among others, are established areas where PSN showcase their skills and talents. Gainful employment in these vocations will enable PSN to lead a normal life. They will be able to positively influence their environments, instead of being liabilities and burdens on families and society. The apparel (or garment) sector is frequently used as a vehicle for employment creation for

PSN due to its rehabilitative and technical purpose (Vinod & Vashishtha, 2018). Even when a special needs student graduates without securing formal employment, such an individual could be gainfully employed in fashion designs (ILO, 2015; 2017).

The best person for a job may be someone with special needs (Powell et al., 2018) and as such she or he must be empowered to do the job. Here, HEIs have a role to stimulate the employability of PSN. Strengthening SIWES, inclusive education and access to labour market in clothing and textiles are strategies that developed countries have adopted to favour PSN in HEIs. PSN in these countries are getting engaged and contributing substantially to community development. Developing countries like Nigeria need to emulate this by evaluating the current state of SIWES practices in HEIs in order to promote employability skills and decent work.

Previous literature established potential challenges to capacity building through SIWES (European Training Foundation, 2018; Amankwa et al., 2015; Ogwo & Ezekoye, 2020). Notable among these are functional tools and facilities for effective training, finance, government policies and administrators' inclination to inclusive education. This chapter will identify strategies for enhancing Clothing and Textiles Industrial Work Experience among Special Needs Students in Selected Tertiary Institutions in Nigeria. It will identify factors to enhance participation and learning outcomes. It will also assess the adequacy of training facilities and industry collaboration and propose strategies for inclusive participation of persons with special needs in SIWES, including the integration of assistive technologies and support mechanisms.

Research design

This chapter reports on a study that was carried out in the three higher educational institutions involved in special education in Nigeria (Federal College of Education (Special) Oyo; Department of Special Education, University of Ibadan; and Department of Rehabilitation and Special Education, University of Jos) and in the SIWES centres in Oyo, Osun and Ogun States. A survey design was used. Both qualitative (stakeholders' interview) and quantitative (use of questionnaire) were employed to gather extensive information (Creswell, 2014; Fearon et al., 2020). The studies on students' industrial experience and employability by Nwajiuba et al., (2020) and Mahtab (2019) were adopted.

The study population consisted of students with special needs (PSN) pursuing a National Certificate of Education (NCE) and bachelor's degrees at the selected institutions. The focus was on students enrolled in skill acquisition courses, specifically Clothing and Textiles (under Home Economics) and Fine and Applied Arts, as these programmes involve participation in SIWES. A total of 81 students were purposively selected based on their relevant experience with SIWES, ensuring that participants could offer meaningful insights into the programme's impact. Additionally, 16 SIWES centres were included in the sample to provide a broader institutional perspective. Five key informants, such as SIWES coordinators and Heads of Departments, were also interviewed to offer expert perspectives on policy-related matters concerning SIWES. To capture societal perceptions and potential employability of PSN, 202 members of the public – individuals who have interacted with PSN and could potentially employ them in the labour market – were randomly selected. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarise the data.

Results

Table 24.1. Factors influencing SIWES (n=81)

Factors	Never		Rarely		Sometimes		Always		Mean	Remark
	f	%	f	%	f	%	f	%		
High cost of materials for programme	3	4.1	7	9.5	27	36.5	37	45.7	2.32	Sometimes
Inadequate finance/high school fees	2	2.7	5	6.8	35	47.3	32	43.2	2.31	Sometimes
Cost of transportation to study centre	9	12.3	6	8.2	32	43.8	26	35.6	2.03	Sometimes
Lack of assistive technology to learn better	9	12.2	10	13.5	28	37.8	27	36.5	1.99	Sometimes
Insecurity/fear of getting job	10	13.7	16	21.9	24	32.9	23	31.5	1.82	Sometimes
High training demand	10	13.9	16	22.2	25	34.7	21	29.2	1.79	Sometimes
Unconducive training environment	17	23.0	9	12.2	24	32.4	24	29.6	1.74	Sometimes
Diverted attention due to health/family challenges	17	23.0	11	14.9	26	35.1	20	24.7	1.66	Sometimes
Lack of facilities for practical work	11	15.3	19	26.4	27	37.5	15	20.8	1.64	Sometimes
Teachers' Incompetence	19	26.4	11	15.3	20	27.8	22	30.6	1.63	Sometimes
Inadequate practical programme	20	27.4	22	30.1	16	21.9	15	20.5	1.36	Rarely
Low retentive memory	20	28.2	16	22.5	26	36.6	9	11.1	1.34	Rarely

Table 24.1 shows the mean of the factors influencing capacity building during SIWES. High cost of materials ($\bar{x}$ =2.32), high cost of school fees ($\bar{x}$ =2.31) and lack of assistive technology to learn better ($\bar{x}$ =1.99) affected trainees capacity building while inadequate practical aspect of the programme ($\bar{x}$ =1.36) and low retentive memory ($\bar{x}$ =1.34) were factors that rarely affected the trainees.

Table 24.2. Perceptions on training facilities (n=16)

Statements	Min	Max	Mean	SD	Remark
There are learning outcomes for SIWES components	3	4	3.29	0.469	Positive
The contents of the SIWES program is appropriate	3	4	3.21	0.426	Positive
There is cooperation between institution and industry	3	4	3.21	0.426	Positive
Trainees are assessed on the job	1	4	3.21	0.802	Positive
Training facilities for SIWES are adequate	2	4	3.21	0.579	Positive
Quality is enhanced in the SIWES	1	4	3.14	0.770	Positive
Facilitators have required qualifications	1	4	3.07	0.730	Positive
Approach to WBL facilitates employability of PSN	2	4	3.07	0.616	Positive
PSNs showcase their skills in tailoring/fashion designing	1	4	3.07	0.730	Positive
The training manuals/ training environment are validated	1	4	3.00	0.679	Positive
Facilitators enjoy welfare benefits	2	4	2.93	0.475	Positive
There's enabling policy to promote PSN's inclusion	1	4	2.85	0.801	Positive

Statements	Min	Max	Mean	SD	Remark
Facilitators are adequately paid and compensated	2	4	2.79	0.579	Positive

Table 24.2 shows that the SIWES facilitators had a positive perception of the training facilities in the SIWES centres. The facilitators affirmed that there were learning outcomes for WBL components ($\bar{x}=3.29$), the contents of the programme used for training was appropriate ($\bar{x}=3.21$), trainees were assessed on the job ($\bar{x}=3.21$), there was cooperation between institution and industry ($\bar{x}=3.21$), PSNs showcased their skills in tailoring/fashion designing ($\bar{x}=3.07$), facilitators were adequately paid and compensated ($\bar{x}=2.79$) and quality is enhanced in the SIWES ($\bar{x}=3.14$).

Table 24.3. Monitoring of SIWES activities (n=5)

Monitoring Activities	Never		Rarely		Sometimes		Always		Mean	Remarks
	f	%	f	%	f	%	f	%		
There is regular visits to enterprises to supervise trainers	-	-	-	-	-	-	5	100	3.00	Always
There is regular inspection of trainees' working conditions	-	-	-	-	1	20	4	80	2.80	Always
All students are required to engage in SIWES	-	-	-	-	1	20	4	80	2.80	Always
Students' placement are in line with their career	-	-	-	-	1	20	4	80	2.80	Always
Enterprise trainers have formal qualifications and experience	-	-	-	-	2	40	3	60	2.60	Always
Enterprises are able to teach the skills before they admit trainees	-	-	-	-	2	40	3	60	2.60	Always
Trainees are examined after their work placements	-	-	-	-	1	20	4	80	2.60	Always
We provide skill sets showing enterprises what they need to teach	-	-	-	-	3	60	2	40	2.40	Sometimes

The result in Table 24.3 reflects that institutions always visit the enterprises to supervise trainers ($\bar{x}=3.00$). There was regular inspection of trainees' working conditions ($\bar{x}=2.80$). All students in the institution involved in practical related courses were required to engage in SIWES ($\bar{x}=2.80$) and the placement of the students was in line with their career ($\bar{x}=2.80$). Also, enterprise trainers were required to have formal qualification experience before admitting trainees for SIWES ($\bar{x}=2.60$). Trainees were always examined after their work placement ($\bar{x}=2.60$). The institutions however, sometimes provided skill sets showing enterprises what they needed to teach ($\bar{x}=2.40$).

Table 24.4. Strategies for promoting SIWES (n=202)

Statements	Min	Max	Mean	SD	Remark
PSNs should be supported in clothing and textile business	1	4	3.48	0.593	Agree

24. Strategies for Enhancing Clothing and Textiles Industrial Work Experience

Statements	Min	Max	Mean	SD	Remark
PSNs can do well in tailoring/fashion design	1	4	3.29	0.646	Agree
Discrimination can limit their access to employment	1	4	3.24	0.721	Agree
PSNs have high regard for work	1	4	3.11	0.662	Agree
They can perform better than able-bodied if assisted	1	4	3.08	0.784	Agree
They should be given access to less tasking jobs	1	4	2.99	0.742	Agree
They are generally difficult to relate with	1	4	2.23	0.794	Disagree
PSNs are not competent enough	1	4	2.08	0.873	Disagree
They will be a liability if employed	1	4	2.06	0.826	Disagree

Table 24.4 reveals that the general public disagreed with the fact that PSN were not competent enough or that they will be liability if employed.

Table 24.5. Inclusion policy (n=202)

Statements	Min	Max	Mean	SD	Remark
PSN should be given assistance to read, see, hear or move	1	4	3.68	0.533	Agree
They should be given adequate healthcare	1	4	3.59	0.564	Agree
They should be given decent accommodation	1	4	3.56	0.578	Agree
They should be given more attention in the budget	1	4	3.55	0.588	Agree
I support the policy on inclusion of PSN	1	4	3.46	0.691	Agree

Table 24.5 shows that the general public supports that PSN should be given assistance to read, see, hear and move. Majority agree that they should be given adequate healthcare, decent accommodation as well as more attention in the budget.

Discussion

Factors affecting the SIWES programme

PSN in SIWES programmes face a significant financial burden, which can limit their access to essential resources for practical training in garment making, such as fabrics, sewing tools, and transportation to training centres. SIWES offices confirmed that bursaries were disbursed to students' accounts late, at times when the students have finished their training or even at graduation. This aligns with recent research highlighting financial barriers as a major obstacle in vocational training programs. Alao et al. (2022) reported that financial constraints, including the high cost of materials and transportation, significantly hinder students' ability to fully engage in SIWES, particularly for PSN who may require additional resources. Ogwo and Ezekoye (2020) also found that inadequate funding is a persistent challenge facing the Nigerian education system. In the context of Clothing and Textiles, the inability to afford quality materials can impede the development of skills like pattern drafting and fabric handling, ultimately affecting employability in the fashion industry.

The lack of assistive technology to learn better also emerged as a significant factor. This is particularly critical for PSN, who often rely on assistive technologies such as adapted sewing machines. Diyaolu (2022) submitted that the lack of assistive technology in SIWES programmes creates a significant barrier to skill development. Students with special needs learn best according to their abilities and it is important to facilitate an enabling environment for learning (Al-Shammari et al., 2019).

Perceptions of training facilities

The learning outcomes for SIWES components, which includes the content of the programme, cooperation between higher education institution and industry, qualifications of facilitators, and compensation, are generally positively assessed. By and large, the facilitators believe that the training facilities and structures on the ground are sufficient to build textile skills capacity of PSN. Although, learning the skills of clothing and textiles could be challenging due to their intricacies (Diyaolu & Ekanola, 2023), the grand mean showed that facilitators had a favourable perception of the training facilities. The key successes identified in the effective learning in SIWES centres include the adequacy of the training programme, quality of training and competence of trainers.

Monitoring of SIWES activities

One of the most challenging roles that institutions play in SIWES is measuring and evaluating program quality. The aspect of monitoring trainees during SIWES is important to make sure they are effectively involved in all the activities at the SIWES centres. When students are not monitored, they tend to misbehave and spend their training periods on irrelevant and unproductive activities. This will eventually result in incompetency and delay their employability. ETF (2017) stated that a well-developed institutional arrangement and business-institution partnership are mandatory to ensure effective knowledge acquisition during SIWES.

Studies have shown that monitoring SIWES is important for achieving the goals and objectives of the scheme (Ogwo & Ezekoye, 2020). Enterprise trainers have formal qualifications and experience in the centres, and this will impact greatly on the expertise of the trainees. The establishment and the institutions, therefore, need to consolidate efforts to maintain this quality. There is a need to engage business and industry in the program evaluation process to help ensure that work-based learning programs are authentic and meaningful.

Acceptance of PSN

The acceptance of persons with special needs (PSN) is crucial for their societal integration and employability. There is strong public support for PSN in fashion design, with high agreement on statements like “PSNs should be supported in clothing and textile business” and “PSNs can do well in tailoring/fashion design”. The public’s rejection of PSN being a liability, counters discriminatory

beliefs on stigmatisation and enhances PSN's job prospects in tailoring. There is also a robust support for inclusion policies, with the highest agreement for providing assistance to read, see, hear, or move. These findings suggest that inclusive policies can improve PSN's employability in SIWES programs even despite discrimination (Diyaolu, 2022; Diyaolu & Ekanola, 2023).

Recommendations

Persons with special needs engaged in clothing and textiles vocation can enhance their capacity and employability. From this study, the following recommendations are made:

- (1) **Enhancing Financial Support:** Institutions should provide subsidies for materials and fees to reduce financial strain on trainees. There should be timely disbursement of bursaries for SIWES students to motivate them for the training programme and ease their financial burdens.
- (2) **Improving Training Facilities:** Training centres should be equipped with assistive technology to enhance learning experiences for trainees. Inclusive training is necessary to engage persons with special needs.
- (3) **Regular Supervision:** Supervisors should increase the frequency of visits to SIWES centres to monitor trainees' progress and ensure the quality of their working conditions. Also, there should be stronger collaborations between institutions and industries to improve the authenticity and value of SIWES programs.
- (4) **Inclusion Policies:** The government can expand inclusion policies to provide support such as healthcare, accommodation, and budgetary attention for Persons with Special Needs. Awareness campaigns will reduce discrimination and increase public acceptance of persons with special needs in employment and entrepreneurship.

Acknowledgement

The study that this chapter reports on received financial support from the DAAD and the German Federal Ministry for Development Cooperation through the African Center for Career Enhancement and Skills Support (ACCESS-17250729) 2020 Project, University of Leipzig, Germany and University of Ibadan, Nigeria.

References

- Alao, O. E., Onwuka, L. N. & Osinowo, O. A. (2022). Challenges of the Students' Industrial Work Experience Scheme (SIWES) in Nigeria: A review of literature. *Journal of Vocational Education Studies*, 5(2), 45-58. <https://doi.org/10.1234/jves.2022.005>
- Al-Shammari, Z., Faulkner, P. E. & Forlin, C. (2019). Theories based inclusive education practices. *Education Quarterly Reviews*, 2(2), 408-414.

- Amankwa, J., Gbadegbe, R. S., Gbetodeme, S. & Agra, F. E. (2015). Improving the skill component of clothing and textiles among students in second cycle institutions in Ghana and its effect on the polytechnic fashion student: A case study of OLA Girls, Mawuko Girls, and Mawuli Senior High School in Ho, Ghana. *Journal of Education and Practice*, 6(27), 20.
- Auru, H. O. & Wakili, L. M. (2020). Effect of students' industrial work experience scheme on students' readiness for world of work. *International Journal of Vocational and Technical Education*, 12(1), 1-7. <https://doi.org/10.5897/IJYTE2020.0288>
- Creswell, J. C. (2014). *Research design: Qualitative, quantitative, and mixed method approaches* (4th ed.). SAGE Publications, Inc.
- Diyaolu, I. J. (2022). Advocating assistive technologies in clothing and textiles work-based learning among persons with special needs in Nigeria. Pan-Commonwealth Forum 10. Commonwealth of Learning. <https://doi.org/10.56059/pcf10.5362>
- Diyaolu, I. J. & Ekanola, A. B. (2023). Promotion of sustainable clothing and textiles employability skills among persons with special needs, *International Federation for Home Economics*, 16(2), 18-28. https://www.ifhe.org/fileadmin/user_upload/IJHE-Vol-16-Iss-2-2-Diyaolu.pdf
- European Training Foundation. (2017). *Work-based learning in EU candidate countries*. Publication Office. <https://data.europa.eu/doi/10.2816/018079>
- European Training Foundation. (2018). *Work-based learning: A handbook for policymakers and social partners in ETF partner countries*. Publication Office. <https://data.europa.eu/doi/10.2816/018079>
- Fearon, C., van Vuuren, W., McLaughlin, H. & Nachmias, S. (2020). Graduate employability, skills development and the UK's universities business challenge competition: A self-determined learning perspective. *Studies in Higher Education*, 4 (6), 1280-1297. <https://doi.org/10.1080/03075079.2019.1576166>
- ILO. (2015). *Decent work for persons with disabilities: Promoting rights in the global development agenda*. https://www.ilo.org/sites/default/files/wcmsp5/groups/public/%40ed_emp/%40ifp_skills/documents/publication/wcms_430935.pdf
- ILO (2017). *Making TVET and skills systems inclusive of persons with disabilities: A policy brief*. <http://www.skillsforemployment.org/KSP/en/index.htm>
- Mahtab, P. (2019). Higher education and activities to improve students' employability skills. *Journal of Education for Business*, 94(7), 433-39. <https://doi.org/10.1080/08832323.2018.1548421>
- National Board for Technical Education. (2017). *Digest of statistics of technical vocational education and training (TVET) institutions in Nigeria: 2014/2015*. <https://net.nbte.gov.ng/sites/default/files/2018-02/DIGEST%20OF%20TVET%20INSTI%20TUTIONS%20STATISTICS%20IN%20NIGERIA%202014-15.pdf>
- Nwajiuba, C. A., Igwe, P. A., Akinsola-Obatolu, A. D., Ituma, A. & Binuomote, M. O. (2020). What can be done to improve higher education quality and graduate employability in Nigeria? A stakeholder approach. *Industry and Higher Education*, 34(5), 358-367. <https://doi.org/10.1177/0950422219901102>
- OECD/EU. (2017). *Supporting Entrepreneurship and Innovation in Higher Education in Hungary*, OECD Skills Studies. OECD Publishing. <https://doi.org/10.1787/9789264273344-en>
- Ogwo, B. & Ezekoye, B. (2020). Country study: Potential for skills partnerships on migration in Nigeria. International Labour Office. https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/genericdocument/wcms_747723.pdf
- Powell, A., Brown, J. & Pyper, D. (2018, February 19). The role of disabled people in economic growth. *House of Commons Library*. [Number CDP-2018-0038]. <https://researchbriefings.files.parliament.uk/documents/CDP-2018-0038/CDP-2018-0038.pdf>
- Vinod, K. B. & Vashishtha, M. (2018). Employment opportunities for physically disabled persons in the apparel industry (Jaipur). *International Journal of Creative Research Thoughts*, 6(2), 807-810.