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RESEARCH PAPER

Perceptions of Students toward Technical and Vocational Education in Pakistan: A Case Study on Curriculum through Trainees' Eyes

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ABSTRACT

Technical and vocational education and training (TVET) provides the groundwork for worldwide career progression, particularly in fabric and textile fashion technology and other fields where international textile and garment firms are quickly expanding. Despite the curriculum courses, trainees at Pakistan's Technical and Vocational Training Institute (TVTI) struggle to apply their abilities in professional contexts. This paper investigates learners' self-perceived English competency, skill issue, availabilities of material, and curriculum changes to better connect education with industry-specific demands. A mixed-methods approach was used to collect data from trainees at TVTI in Karachi and Sindh. The study used descriptive statistics and thematic analysis to analyze interview data on macro-skill and technical instructions, highlighting the gap between skill issues and technical language abilities in various industries, suggesting the need for improved skills and vocabulary. This study emphasizes the need for curriculum change at Pakistan TVT Institute to meet trainees' particular language and skills issues and increase their competitiveness in the global workforce.

KEYWORDS: Professional Contexts, Technical and Vocation Language, Trainee, Sub Skill Issue, TVET Curriculum

Introduction

In today's global job marketplace, technical skills and language competence are essential, especially in technical and vocational areas. English and technical skills are becoming increasingly important in areas such as fashion, where cross-border collaboration is common, particularly in Pakistan, where international textile and garment firms are quickly growing. Proficiency in written and spoken English is essential for job growth and successful communication in the garment industry and other technical areas(Pirzada, Muhammad, & Mahmood, 2022; Muzaffar, & Javaid, 2018)). Pakistan's present TVET curricula lack adequate English language education, particularly in the textile and fashion technology disciplines. The program emphasizes practical skills above English education, which is critical for worldwide employment. The lack of industry-specific English skills hinders trainees' possibilities for academic and professional progress, as English is the medium of teaching at higher levels (Naqvi, Ahmad, & Siddiqui, 2019). The Federal Technical and Vocational Institute (TVTI) has not considerably increased trainees' communication fluency and accuracy, especially in real-world scenarios. Despite considerable English education, TVTI graduates struggle with fundamental communication skills, which affects their ability to create instructional materials, and give training sessions(Anjum, 2020). Employers in the TVET industry are concerned about graduates' English skills, citing issues communicating demands and reacting to instructions. A TVTI tracer research highlighted graduates' discontent with their English competence, since new courses failed to meet their unique language needs as trainers(Bano, Yang, & Alam, 2022). Emphasizing passive voice in technical

communication and using garment-specific language would help trainees improve their technical instruction delivery abilities and make English learning more relevant to their professional jobs in textiles, machines, and manufacturing(Chinedu-Ali, Abang, Ameh, & Agwu, 2020). English proficiency is crucial in the global garment industry for manufacturing, supply chain management, customer relations, and technical documentation, especially with the growth of e-commerce and oral communication for phone contacts(Ayonmike & Okeke, 2020). Research has emphasized the language needs of garment and apparel trainees, exploring various skill areas such as writing, speaking, listening, and reading, to understand the challenges they face in the workplace(Ansari & Wu, 2013). Additionally, adding terminology related to textiles, technology, and manufacturing procedures would make learning English more suitable and relevant for trainees' professional responsibilities. Training methods that are content-based and integrate general language skills with industry-specific vocabulary would guarantee that students had the language proficiency needed for their jobs(Iqbal, 2022). The study's goal is to increase English proficiency among Pakistani TVET trainees in technology by recommending curriculum revisions that address their unique language demands, consequently improving communication skills and better preparing them for local and worldwide markets. This study suggests that addressing curriculum gaps through evidence-based reforms can enhance the technical skills of Pakistan TVET trainees, providing valuable insights for practitioners, educators, and policymakers in Pakistan and similar contexts.

Literature Review

Learning theory indicates the need of genuine settings, social interactions, cultural practices, and physical environments in which learners actively engage, contribute, and draw on past experiences to generate knowledge (Chinedu-Ali et al., 2020).According to the theory, learning is more than simply a cognitive process; it is also impacted by social interactions, cultural practices, and physical surrounds, requiring active engagement and cooperation(Ansari & Wu, 2013). This strategy aims to improve the transferability and application of knowledge and skills in real-life scenarios. English and technical skills are required for communication in production, supply chain administration, customer relations, and technical documentation in many sectors throughout the world. The growth of e-commerce has increased the need for solid written English skills, but oral communication is essential for phone conversations(Shabir, Iqbal, & Alamgir, 2014). Factors like as delivery speed, accents, noise, encoding method, and multitasking all have an influence on vocational education comprehension and training. During lectures, careful attention and note-taking, as well as socio-cognitive theories of skill development, are crucial for systematic information collection and optimal learning(Khan, Hasan, & Rabbani, 2017). Because of their distinct content and language, technical materials require more critical thinking and understanding than traditional books. Regardless of ability level, confidence, attitudes, and experiences have a significant impact on oral skills(Akhuemonkhan, Raimi, & Dada, 2014).Though it is critical to give assistance to individual requirements, little is known about the perceived difficulties Ethiopian trainees encounter. Research has shown a significant link between the frameworks of contextual learning theory and socio-cognitive theory. Both theories stress the development of contextual competency through real, personalized practice(Mack & White, 2019). Focused tactics for skill development, such as industry seminars, immersion programs, and specialty courses, can help to boost professional confidence. Anticipating obstacles develops linguistic identity from prior experiences. English language skills increase marketability and allow access to global markets, which is crucial for industrial integration. To get the best results, garment and apparel fashion institutions must continue to study successful approaches and implement curriculum revisions that promote greater industry integration(Milio, Garnizova, & Shkreli, 2014). Finally, contextual learning theory emphasizes learning in real-world settings influenced by social interactions and cultural

conditions. The studies concentrate on trainees' linguistic needs, including skill development issues, hearing, and speaking. Integrating occupation-specific vocational education vocabulary and communication strategies into technical curricula, as well as industry seminars and specialized courses, benefits both English education and industry integration. Proficiency in spoken English improves employability and global market access, fostering success in global work.

Material and Methods

The study employed a mixed-methods approach to collect quantitative and qualitative data on students' perceptions of vocation education and technology trainees, using a questionnaire with both closed-ended and open-ended items for structured data collection. The study used stratified random sampling to ensure a broad and representative sample. Trainees in vocational and technological programs were separated into three categories depending on their study schedule: regular, summer, and nighttime. This strategy allowed for proportional representation of each strata in the sample, which consisted of 25 regular trainees, 50 summer trainees, and 45 evening trainees. The interviews were done in the local language to collect detailed input from the participants. The interviews allowed trainees to comment on their thoughts, experiences, and issues with language abilities in a more open-ended and conversational setting. The interviews were taped and transcribed verbatim for qualitative analysis. Nine observation sessions were conducted to observe trainees' language use in practical tasks, recording their creation, interaction, and participation. These observations provided insights into their actual language performance and allowed comparison with their self-reported perceptions. The acquired data was evaluated using both quantitative and qualitative methodologies. The questionnaire responses were examined using descriptive statistics to estimate frequencies, averages, standard deviations, and perceived difficulty variability. This research offered a quantitative summary and comparison of the participants' impressions.

Results and Discussion

The study's major findings, which are based on data analysis, seek to address research objectives by investigating trainees' backgrounds and perceptions of difficulty across various language skills. The findings are divided into sub-sections, which combine quantitative survey data with qualitative insights from interviews and observations to create a full perspective of the participants' experiences.

Trainees Background

This section presents a summary of the trainees' background characteristics to provide significant insights into the profiles of the 108 respondents.

The sample included more female trainees than male trainees, with 63% of the total being female and 37% being male. The gender ratio of 2:1 female to male suggests that the perspectives expressed are more aligned with the experiences of female trainees. The majority of respondents (40.7%)preferred distance learning over regular on-campus classes, with weekend classes coming in second with 37%. Only 22.2% took regular daytime classes, indicating a preference for flexible distance or part-time formats. This preference aligns with working professionals balancing work and study commitments. The majority of respondents (58.2%) were 20-25 years old, with limited outside responsibilities and limited work experience. English instruction varied, and abstract language could be challenging without practical application. Younger trainees perform better on grammar exams, while adults excel in communicative activities, likely due to life experiences. However, both groups can succeed with specific factors.

7.4% of individuals aged 26-30 balance their first jobs and families with studies, recognizing the importance of pragmatic language skills for professional advancement and community engagement, with many feeling competent but motivated to improve.

29.8% of the 31-40 age group acquires English proficiency through stable employment and family, promoting career mobility. However, returning to school after years away can be challenging, and achievement is driven by practicality.

The 41-45 age group (4.6%) faces significant academic challenges after a layoff, but they overcome them with maturity, subject mastery, and skill objectives. Self-driven learning works well for busy schedules with independence and flexibility. Brown & Larson-Hall (2012) suggest physical maturation influences early skills but not ultimate proficiency.

Trainee's Perception of Difficulty of Macro-Skills

Trainees' ratings of six macro-skills, including listening, speaking, reading, writing, grammar, and vocabulary, are analyzed using a 5-point Likert scale, with trends and qualitative feedback providing context.

Table 1
Trainees' Rating of the Difficulties of Macro-Skills

Macro-skills	N	Minimum	Maximum	Mean	SD
Listening	108	1.00	5.00	3.57	1.20
Speaking	108	1.00	5.00	3.15	1.35
Reading	108	1.00	5.00	3.61	1.27
Writing	108	1.00	5.00	3.10	1.45
Grammar	108	1.00	5.00	3.74	1.26
Vocabulary	108	1.00	5.00	3.79	1.33

There are many trends in the way that students evaluate their language proficiency. With mean difficulty ratings of 3.10 and 3.15, respectively, and standard deviations of 1.45 and 1.35, writing and speaking were the most challenging tasks. Compared to the other macro-skills, writing has a higher mean difficulty rating, which might indicate that learners struggle with structuring their writing, choosing the right vocabulary and grammar, or effectively and persuasively conveying their ideas.

Interviewee 6 struggles with writing effectively due to several challenges. One major issue is organizing thoughts coherently, resulting in disjointed or fragmented ideas. They also lack appropriate vocabulary, making it difficult for readers to follow their arguments. Another challenge is finding the perfect balance between being concise and providing enough details, as their tendency to be excessively specific or make pointless deviations can distract from the core message. These issues can hinder the overall effectiveness of their writing.

Interviewee 2 expressed concern about the general English taught in class, which doesn't align with the specific skills needed in their future jobs. She mentioned the lack of specific terms in garment production, such as fabrics, machinery, and quality control, which are crucial for communication with suppliers and writing reports. She believes that if the curriculum focused on these specific terms and demonstrated their usage in technical instructions or reports, it would be more useful. She also mentioned that learning basic communication skills alongside technical vocabulary would better prepare them for the workplace.

Trainees' Perception of Speaking skills

The data in Table 4 displays trainees' difficulty ratings for seven speaking sub-skills, highlighting both the general level of difficulty and variability across these skills.

Table 4
Trainees' Perception of Speaking skills

Speaking sub-skills	N	Minimum	Maximum	Mean	SD
Asking Questions	108	1.00	5.00	3.10	1.52
Replying Questions	108	1.00	5.00	3.31	1.09
Participating in Discussions	108	1.00	5.00	3.03	1.33
Giving Presentations	108	1.00	5.00	2.88	1.30
Giving Instructions	108	1.00	5.00	3.11	1.35
Describing Diagrams/Charts	108	1.00	5.00	2.97	1.25
Responding to Interviews	108	1.00	5.00	2.97	1.34

Giving presentations had the lowest mean grade (2.88), suggesting that it is the most challenging ability for trainees to learn. In contrast, answering questions (3.31) is regarded as the simplest skill to master. Other sub-skills, such as asking questions, engaging in conversations, offering directions, explaining diagrams/charts, and delivering interview comments, have moderately demanding mean scores ranging from 3.03 to 2.97.

The variability in standard deviation (SD) indicates that trainees perceive certain skills as moderately difficult, while those who participate in discussions and give instructions show higher SDs, indicating a wider range of experiences and challenges. Observations in classrooms and workshops reveal that trainees find giving presentations and participating in discussions challenging. Many hesitate when asked to present, relying heavily on pre-prepared notes, and display visible anxiety, often avoiding eye contact and speaking monotonously.

Interviewee 7 expressed discomfort with presentations due to lack of confidence in using technical words and a fear of grammar errors. They often struggle to remember English terms or read from notes, which makes it difficult to get everything right. They wish for more practice in technical English lessons to better prepare for presentations and feel that more technical English should be included in lessons. Trainees showed reluctance to speak during group activities and discussions, often expressing brief or incomplete responses. This suggests that participation in discussions, with a mean of 3.03, is challenging, emphasizing the need for opportunities for spontaneous communication in a supportive environment, as trainees often struggle with participation.

Discussion

The study explores trainees' perceptions of English language difficulty in a Pakistani technical program, contextualizing findings, referencing prior research, providing new insights, addressing limitations, and discussing implications.

Research indicates that trainees in garment and textile technology face challenges in academic writing, including organizational, coherence, and grammatical issues. This aligns with previous studies indicating the importance of strong writing and oral skills for tasks like reports, proposals, and documentation. The research found that trainees face difficulties in communicating technical material in writing, particularly in maintaining cohesive thoughts and formatting their work in a logical and fluid manner, which can lead to unconnected or fractured ideas, as noted by Interviewee 6. This highlights the importance of concentrated writing education in improving the clarity and organization of trainees' written communication. In addition, Interviewee 10, addressed

the special issues associated with industry-relevant grammar: "In my opinion, it would be really beneficial if we could devote more time to terminology that is directly linked to what we do in garment manufacture, such as discussing various fabrics and machinery. I believe knowing how to provide instructions in the passive form would be really beneficial, particularly for describing processes." To better prepare trainees for their future positions, curriculum should emphasize technical language qualities such as passive voice and industry-specific vocabulary. The Federal TVET Institute's language materials are inadequate for trainees' English language needs, as they are not relevant to their individual fields of study. To improve writing outputs, targeted intervention is needed, addressing organizational frameworks, technical terminology, and self-regulated learning processes, as technical and vocational training often overlooks discipline-specific growth. Interviewee 4 noted that listening to lectures can be challenging due to unfamiliar accents, fast-paced speech, and complex vocabulary, which are common barriers in diverse educational settings due to non-native accents and varied delivery styles. Technical reading is challenging due to the need for stronger inference, critical analysis, and familiarity with specialized terminology. The current English curriculum lacks technical relevance, as it doesn't cover terms related to fabrics, machinery, and quality control. This lack of technical relevance hinders trainees' ability to navigate industry-specific documents effectively, as they perceive manuals, reports, instructions, and models as the most difficult. Interviewee 2, argues that the current English curriculum lacks technical relevance, as it doesn't cover terms related to fabrics, machinery, and quality control, which are essential for trainees' jobs. This lack of technical relevance hinders their ability to navigate industry-specific documents effectively, highlighting the need for a more comprehensive approach. The study reveals that oral presentations, diagram/chart descriptions, and interview responses are the most challenging speaking sub-skills for trainees. Interviewee 10 emphasized this difficulty, stating that they struggle to explain their work in English in a specific technical environment, which aligns with research showing students struggle to translate general language learning to specific technical environments. The study suggests that a supportive classroom environment, accepting mistakes and celebrating incremental learning, can boost confidence over time. It also suggests that authentic workplace simulation tasks aid in developing self-regulation skills and technical English proficiency.

Conclusion

The research assesses the English language and technical education problems that Pakistan Technical and Vocational Training Institute trainees experience in the technology field. It offers insights into curriculum change and improves English language support in technical programs. Non-native learners face difficulty with coherence, structure, and grammar while writing. Writing self-efficacy is influenced by factors such as previous linguistic experience and confidence. These issues might be addressed with a personalized approach that includes industry-specific material, grammar, and terminology. This content-based education can improve language learning results by using industry-specific vocabulary and technical grammar. Lectures can be challenging for students, especially when teachers speak in a foreign accent or at a rapid pace. The cognitive burden of listening, technical jargon, and taking notes adds to the difficulties. Strategic interventions like note-taking frameworks and specialized listening activities can help avoid cognitive overload and improve listening skills. Trainees struggled with English communication for technical procedures in the clothing industry, highlighting the need for curricular changes that incorporate speaking exercises focused on technical language, garment-specific syntax, and passive voice usage. Repeated practice in industry-relevant scenarios could help learners gain speaking confidence and competence. The study supports socio-cognitive and situated learning theories for personalized language development, emphasizing the need for harmonization of technical and communicative English skills in TVET contexts. It emphasizes the

importance of continuous assessment and curriculum responsiveness for international competitiveness.

Recommendations

The study suggests that future research should focus on improving English language instruction for non-native learners in technical fields. It suggests that context-specific interventions can optimize learning and equip trainees with the skills needed for global markets. The findings offer practical recommendations for enhancing English language education in technical and vocational settings, requiring further exploration of pedagogical interventions and curriculum adaptations.

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