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Research Paper

Challenges faced by special education teachers in implementing basic culinary vocational instruction in secondary schools

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ABSTRACT

Basic vocational instruction in food preparation is an important component of special education, as it plays a significant role in enhancing the practical skills and employability of students with special needs. The research seeks to discover what difficulties special education teachers experience when they teach basic vocational food preparation courses and to analyze how these difficulties affect their teaching performance. The study used a quantitative methodology which surveyed 108 special education teachers who worked at vocational secondary schools located in Melaka state. The sample was selected from a population of 150 teachers using the Krejcie and Morgan (1970) table. The research team collected data by distributing a questionnaire which they analyzed using SPSS version 29. The research demonstrates that teachers encounter multiple obstacles which include curriculum and instructional module limitations and insufficient teaching resources and excessive workload requirements and time management challenges. The basic vocational food preparation course provides students with benefits which include development of their practical abilities and self-assurance and social competencies and motivation to learn. The study identifies continuous professional development for teachers as a vital requirement which needs to be fulfilled through providing suitable teaching materials and teaching resources and through obtaining administrative assistance and through obtaining parental and community participation to achieve instructional success. The research study offers both practical solutions and strategic plans which enable special education programs to enhance their vocational training and support students' complete development.

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1. INTRODUCTION

Vocational education serves as a vital element in special education systems because it provides students with special needs essential practical skills that boost their chances of finding work after finishing their education [1]. In the context of vocational secondary special education, the subject of basic food preparation is one of the courses that emphasizes life skills and students' vocational competencies. However, the implementation of vocational instruction is not without challenges, particularly for special education teachers who are responsible for delivering instructional content to students with diverse learning needs. The existing challenges include both resource and curriculum problems together with teachers' difficulties in developing teaching methods which suit the specific requirements of their special needs students [2], [3]. In line with ongoing efforts to strengthen vocational education for special education students, research on basic vocational food preparation instruction should focus on the challenges faced by teachers and how these challenges influence teaching effectiveness.

Background of the Study

The challenges faced by special education teachers in carrying out their instructional responsibilities have increasingly attracted attention in contemporary educational research. Previous studies by [3] found that special education teachers encountered various challenges in implementing teaching and learning processes, including limitations in access to technology and teachers' digital competencies during online instruction. These constraints imposed additional pressure on the teaching process, particularly in out-of-class learning contexts such as during the COVID-19 pandemic. These findings are consistent with recent studies emphasizing that technological infrastructure limitations, uneven teacher readiness, and inconsistent institutional support remain major challenges in inclusive and vocational education [4]. Furthermore, research by [2] revealed that within special and vocational school environments, teachers frequently face issues related to insufficient resources, inadequate training, and weak support systems to facilitate the effective implementation of vocational programs, as similarly reported in pre-vocational contexts for students with special needs [5].

Specifically, within the context of vocational special education, constraints such as a lack of specialized training, inappropriate curricula, and insufficient instructional materials have been identified as key barriers to effective teaching processes [3], [2]. The need for more flexible instructional approaches, the integration of assistive technologies, and the use of interactive learning resources has become increasingly critical to address the diverse learning needs of students with special needs [6], [4]. Special education teachers are therefore required to adapt their instructional strategies to accommodate individual student needs while ensuring that vocational instruction is conducted smoothly, effectively, and responsively in line with curriculum changes and the demands of 21st-century education. The research shows that teacher-related difficulties create major obstacles which prevent vocational training from succeeding. The study shows that teacher-related difficulties create major obstacles which prevent vocational training from succeeding. The research shows that teacher-related difficulties create major obstacles which prevent vocational training from succeeding. The study shows that teacher-related difficulties create major obstacles which prevent vocational training from succeeding.

The success of vocational education depends on psychological and emotional support which students with special needs require, in addition to the educational materials and teaching methods. Students with special needs demonstrate difficulties which impact their social interactions and academic performance according to [5]. Special education teachers provide knowledge to students, but they also deliver emotional assistance, which enables students to handle their journey toward vocational learning.

The advancement of educational technology provides new ways to improve vocational training for students who need special educational assistance. Virtual reality (VR) technology and interactive learning tools enable students to develop life skills through controlled environments, which help them build their

vocational abilities before entering actual work scenarios [6]. Teachers need to develop their skills through ongoing professional development, which requires school systems to provide them with complete institutional backing, so they can successfully apply technology-based learning methods [4]. The complete requirements to achieve successful implementation of technology and teaching innovation methods require educators to grasp all challenges and requirements which special education teachers face when teaching in vocational settings.

Problem Statement

The implementation of vocational instruction in special education, particularly the subject of basic vocational food preparation, serves as a vital method which enables students with special needs to acquire essential vocational abilities and job readiness skills necessary for their first entry into the workforce. The success of vocational instruction depends on special education teachers executing their duties through effective instructional design, execution, and assessment of the learning process. Multiple research studies demonstrate that special education teachers encounter various complex challenges which require systematic solutions because these challenges will hinder their ability to deliver effective vocational training [1], [2].

The existing research indicates that special education teachers face two primary challenges which include their lack of specialized vocational training and their inadequate vocational competence. A study by [1] found that a large proportion of special education teachers demonstrated only a moderate level of readiness in teaching basic vocational skills, particularly in technical and practical aspects. The limitations of these constraints create obstacles for teachers who want to provide effective instruction because they create challenges which prevent teachers from meeting the educational needs of students with special needs. The current situation directly affects how vocational instruction gets delivered in vocational secondary schools.

In addition, inflexible curricula and instructional modules constitute a significant challenge for special education teachers. Vocational curricula that are general in nature and insufficiently adapted to the ability levels of students with special needs often make it difficult for teachers to implement instruction in a progressive and individualized manner [2]. Research indicates that misalignment between curriculum content and students' capabilities may compel teachers to modify instruction on an ad hoc basis, thereby affecting the consistency and overall effectiveness of vocational teaching.

Furthermore, inadequate physical facilities and insufficient instructional materials have been identified as major barriers to the effective implementation of basic vocational food preparation instruction. According to [3], resource constraints such as insufficient kitchen equipment, limited instructional materials, and the lack of suitable specialized classrooms hinder teachers' ability to conduct hands-on learning activities. These limitations not only negatively affect students' learning experiences but also increase stress levels and workload among special education teachers.

The current situation requires special education teachers to solve their time management problems and their difficulties with handling their workload. Special education teachers have to handle extra work because they need to document student records and manage student behavior and perform their school administrative tasks which decreases their time for teaching vocational courses [7]. Teachers face difficulties in providing effective vocational instruction because their existing workload prevents them from meeting student educational requirements.

Basic food preparation courses face challenges in their effectiveness because students require additional support to develop self-management skills and self-confidence and employment abilities. Previous studies have shown that the effectiveness of vocational instruction depends on three main factors which include resource support and teacher competence and suitable learning conditions. The complete potential of vocational instruction cannot be achieved without sufficient support.

Although numerous studies have examined the challenges faced by special education teachers in general, research that specifically focuses on challenges related to the subject of basic vocational food preparation in vocational secondary schools remains limited, particularly within the Malaysian context [1], [2]. Moreover, studies that explicitly link teacher-related challenges to their implications for the effectiveness of vocational instruction are still scarce. Therefore, this study aims to identify the challenges

faced by special education teachers and to examine the implications of these challenges on the effectiveness of basic vocational food preparation instruction for students with special needs.

Research Objectives

1. To identify the challenges faced by special education teachers in teaching the subject of basic vocational food preparation.
2. To examine the implications of these challenges on the effectiveness of basic vocational food preparation instruction for students with special needs.

2. RELATED WORK

Vocational education within special education enables students with special needs to learn essential vocational skills which they need for independent living and work opportunities. The teaching of basic vocational skills in food preparation programs provides students with technical skills which help them build their self-confidence and social abilities while maintaining their learning motivation according to the study in reference 1. The success of vocational training programs depends on special education teachers who need to develop teaching methods that meet the various learning needs of students through their intellectual and physical and emotional development.

Special education teachers encounter multiple difficulties in implementing vocational programs because they must manage both vocational curricula and instructional materials according to recent academic research. Existing vocational curricula according to study [8] maintain rigid structures which prevent students with special needs from demonstrating their actual abilities thus requiring teachers to create their own instructional materials without available standardized educational resources. The current situation requires teachers to handle additional work which results in decreased operational efficiency and educational quality for vocational training programs implemented in schools.

Beyond curriculum-related issues, the lack of physical facilities and instructional materials has also been identified as a major challenge in the teaching of basic vocational food preparation. [9] Reported that most special education schools face constraints in terms of training kitchens, adequate cooking equipment, and consumable materials, which limits the implementation of hands-on instructional activities. As a result, vocational instruction tends to emphasize theoretical content rather than practical training, despite experiential learning being more effective for students with special needs.

The scholarly work explores how special education teachers face difficulties in time management because of their demanding work requirements. Special education teachers at [7] must fulfill both their teaching responsibilities and their additional tasks which include administrative duties and student documentation work and behavior control and parent interaction. The increased workload prevents teachers from developing vocational lessons and makes it difficult for them to deliver practical teaching methods.

Research on special education teacher vocational training shows that teachers do not receive adequate training in their required specialized fields. The research conducted by [10] showed that special education teachers in large numbers do not possess technical skills or vocational training except for their work in culinary education. The absence of technical skills leads to decreased teacher confidence which results in lower self-efficacy and subsequently hinders their ability to teach vocational skills.

Vocational instruction effectiveness depends on teacher self-efficacy which has emerged as a crucial determinant for this outcome. The study from [11] showed that teachers who possess high self-efficacy can implement student-centered teaching methods while using dynamic instructional techniques to manage their classes. The special needs students of teachers with lower self-confidence tend to learn vocational skills better through traditional teaching methods.

Recent studies have examined how vocational education programs currently use modern technology together with 21st-century educational methods. Special education teachers at [12] show a moderate level of 21st-century teaching and learning (PAK-21) implementation because their digital skills and technological resources remain limited. The vocational instruction delivery method becomes ineffective because of these restrictions which prevent the use of interactive media together with project-based learning methods.

The literature demonstrates that special education teachers need institutional and stakeholder support for their work. According to [2], school administration support and ongoing professional development together with parent and community engagement all serve to reduce vocational program challenges which teachers encounter. Special education teachers require proper assistance to maintain their work capacity because lack of it will lead to professional exhaustion which results in decreased work motivation that harms student academic progress.

The literature review demonstrates that special education teachers experience multiple difficulties when delivering basic vocational food preparation instruction because they must handle challenges related to curriculum design and facilities and teacher competency and workload and systemic support. The challenges directly affect how well students learn which creates a need for research studies that will examine educational challenges in vocational secondary schools together with their educational effects.

3. METHODOLOGY

This study employed a quantitative approach using a survey research design to identify the challenges faced by special education teachers in implementing basic vocational food preparation instruction and to examine the implications of these challenges on the effectiveness of teaching for students with special needs. The quantitative approach was selected because it allows for the systematic and objective collection of data from a relatively large sample, enabling statistical analysis of patterns, levels, and trends in respondents' perception. The survey design also enables the researcher to obtain a comprehensive overview of the research phenomenon based on respondents' perspectives within authentic educational settings.

The study population comprised special education teachers who teach the subject of basic vocational food preparation in vocational secondary schools in the state of Melaka. Based on the latest information from the Melaka State Education Department, the total population consisted of 150 teachers. The determination of the sample size was guided by the sample size determination table proposed by Krejcie and Morgan (1970). According to the table, for a population of 150 individuals, a sample size of 108 respondents is considered adequate to represent the population and to ensure the accuracy of statistical inferences.

The research instrument used in this study was a structured questionnaire which researchers designed to gather numerical data that matched their study goals. The questionnaire included three primary sections which contained demographic data about the respondents and two sets of questions that examined teaching difficulties in basic vocational food preparation and their impact on educational results for special needs students. The questionnaire items were constructed based on a review of the literature and previous studies related to challenges faced by special education teachers and the implementation of vocational education [3], [6]. The researchers used a five-point Likert scale to assess how much respondents agreed with each statement.

The research team collected data by distributing the questionnaire to selected respondents while using proper methods and following ethical research guidelines. Respondents received detailed information about the research study objectives and complete protection of their shared information. The study only collected data from participants who chose to take part in the research study and used the data for academic research. The researchers needed these procedures to establish data accuracy while reducing the chances of respondents providing incorrect information.

The researchers used Statistical Package for the Social Sciences (SPSS) version 29 to analyze data which they collected through the questionnaire. Researchers used descriptive analysis to achieve their research goals by determining the extent of difficulties special education teachers experience and the effects of those difficulties on vocational training success. The researchers measured challenge levels and their associated implications through predefined mean score thresholds which used mean scores and standard deviations as their measurement tools. The study findings enabled the researcher to reach definite conclusions through this method of analysis.

The research methodology established structured procedures for data collection and analysis which operated with both clarity and operational efficiency. The selected research design together with the chosen sample size and research instrument and analytical methods will produce findings that possess

both validity and reliability. The study results will provide valuable insights which will enhance basic vocational food preparation instruction in special education by offering teachers specific support and intervention strategies.

Findings

Objective 1: To Identify the Challenges Faced by Special Education Teachers in Teaching Basic Vocational Food Preparation

The results show that special education teachers encounter multiple difficulties when they try to teach fundamental vocational food preparation skills. The study showed that participants faced numerous challenges which resulted in them achieving an average score of 3.70 with a standard deviation of 0.47. The challenges demonstrate wheelchair users exhibit learning difficulties because the instructional materials do not match their special needs requirements. According to multiple teachers the module content contains excessive theoretical elements which fail to deliver enough hands-on educational experiences for students [1].

The teachers faced challenges which stemmed from their teaching environment and the resources available for instruction. The absence of proper kitchen tools combined with the restricted availability of teaching resources which include visual and auditory and kinesthetic (VAK) materials and the shortage of teaching space created obstacles that reduced teaching quality. Teachers face additional challenges because they must create and execute teaching methods that enable all students to succeed in their educational activities [3]. The workload management and time organization issues created obstacles for teachers to face. The teachers needed to manage their lesson development student assessment and execution of other school duties. The situation prevents teachers from delivering practical lessons because they need to oversee students closely while attending to their individual requirements. The findings support the research of [2], which demonstrated that special education teachers experience multiple stressors that impede their ability to deliver effective vocational training.

Objective 2: To Examine the Implications of the Challenges on the Effectiveness of Basic Vocational Food Preparation Instruction for Students with Special Needs

The research results demonstrate that teacher difficulties directly affect vocational training effectiveness. The instruction system exceeded expectations because students obtained high marks which resulted in average scores of 3.60 with a standard deviation of 0.50. The results show that teachers maintained their ability to teach students effectively despite facing multiple obstacles. The research showed that vocational education programs helped students develop practical abilities and self-assurance and study motivation and social competencies.

The researchers discovered that insufficient teaching resources and ineffective instructional materials and teacher responsibilities created obstacles which led to inconsistent student academic performance. The teachers observed that when their educational resources and time became restricted they could not deliver effective hands-on instruction, which resulted in students developing basic food preparation knowledge and skills at suboptimal levels [3]. The study demonstrated that administrative assistance and ongoing professional development and instructional module modifications serve as essential elements for maintaining vocational training efficiency. Teachers who received adequate support were better able to manage challenges and ensure more inclusive and effective instruction. The results support the findings of [1] and [6], which demonstrated that vocational training effectiveness requires teachers to possess necessary skills and schools to provide required resources while teachers develop instructional methods that meet student learning needs.

4. RESULTS AND DISCUSSION

Special education teachers face several difficulties when they attempt to teach basic vocational food preparation skills because they need to deal with restrictions from their curriculum requirements and teaching materials and their available teaching spaces and their teaching duties. [1] The research supports special education teachers need to modify their teaching methods because students require different learning approaches which are essential for their vocational programs that include practical training.

Teachers at schools must create their own teaching methods because they need to handle instructional challenges which emerge when classroom materials do not match student requirements.

The study discovered that teachers faced major difficulties because of their access to teaching facilities and instructional resources [13]. The absence of necessary teaching materials and operational equipment and teaching facilities creates obstacles that universities encounter when they attempt to deliver vocational programs. Teachers need to demonstrate all practical steps for basic food preparation while making sure that students execute each step correctly and safely. Teachers need to develop innovative solutions which require strong organizational abilities because their teaching resources are restricted. The process of teaching vocational skills becomes more difficult for instructors because of their increased workload [14]. Special education teachers face three major responsibilities according to the report which includes administrative work and lesson development and student progress assessment. Teachers experience high levels of stress which leads them to decrease their time spent on real teaching because they need to complete administrative tasks. Teachers need institutional support because they require effective time management systems to handle their operational difficulties.

The study showed that vocational teaching faces direct impacts from these obstacles which affect its learning results. Teachers successfully delivered special needs instruction despite existing difficulties which resulted in better student outcomes. The research demonstrates that students gain vocational training advantages when teachers demonstrate high self-efficacy according to [15]. The instructional process will experience decreased effectiveness when organizations fail to solve their existing problems. The three organizational factors which include unsuitable instructional resources and insufficient teaching materials together with excessive teaching load lead to unpredictable student achievement results. The authors of [13] explained that sustained professional development together with module adjustments and strong classroom management methods need to continue for vocational training programs to achieve effective and inclusive educational outcomes.

Professional development training programs which have direct connections to teaching results emerged as critical elements which determine teacher success. The ongoing vocational training program improves teacher capabilities while helping teachers solve their teaching difficulties through its educational technology training program according to [16]. The basic food preparation training program prepares teachers to use teaching materials effectively while they create customized lessons for their students who have different learning needs. Teaching effectiveness receives enhancement through administrative backing and community involvement which includes parental participation. Teachers who received sufficient administrative support together with essential resources and classroom management help achieved better vocational training results according to [17]. Parental support helps students develop motivation while they learn to use their acquired skills at home.

The results show that flexible instructional methods which focus on student needs have high educational value. Through project-based learning and problem-based learning together with practical methods, students develop essential skills and critical thinking abilities [13]. Research shows that student-centered teaching methods which include all students improve student engagement together with better vocational teaching results. The discussion shows that special education teacher challenges directly affect how well vocational programs function. The implementation of complete educational programs which include teacher development and module modification and teaching resources and administrative assistance is necessary to achieve successful vocational food preparation training outcomes for students with special needs.

Implications of the Study

The study presents significant theoretical contributions for special education which extends to vocational instruction. The results demonstrate that special education teachers experience difficulties when they attempt to teach basic vocational food preparation courses which causes negative impacts on their teaching performance. Teachers need to master specific teaching techniques together with classroom management methods which address the requirements of students who have special needs. The results of the research match with [15] which showed that teacher self-efficacy acts as a fundamental element driving vocational learning success.

The research demonstrates that special education teachers should receive ongoing training about module handling and teaching aid usage and inclusive teaching methods. Training programs which concentrate on vocational teaching methods and educational technology will enable teachers to solve their current difficulties while they boost their teaching performance [16]. The study creates consequences which affect educational policies at both the school level and the state level. School administrators must provide special education teachers with teaching materials and training environments and sufficient time to fulfill their teaching responsibilities. The combination of administrative support with performance-based rewards leads to higher teacher engagement which improves the effectiveness of vocational teaching delivery [17], [18].

The research establishes several factors which impact student learning development. Effective vocational instruction helps students develop practical skills while building self-confidence and social skills which improve their chances of getting hired. This demonstrates that systematic management of teacher challenges directly impacts student learning outcomes and supports the objectives of inclusive education [13].

Recommendations for Future Research and Practice

The study recommends that schools should implement continuous professional development programs which require special education teachers to complete training sessions about basic vocational food preparation teaching methods. The training program needs to teach teachers how to manage teaching modules while using BBM teaching materials and student-centered instructional methods to solve their problems with delivering practical lessons to students. The study recommends that educational institutions should supply complete vocational teaching resources which include both teaching materials and safe classroom environments. The provision of appropriate resources enables educators to improve their teaching abilities while decreasing their operational pressures and demands [14].

The research team wants to study how educational technology together with interactive media affects special needs students who learn through vocational training. The use of technology enables teachers to explain concepts to students more effectively while their students become more involved in the learning process and use technology to learn through practical experiences in limited classroom spaces. The study recommends that schools should establish stronger programs which involve parents and community members to help students learn vocational skills. Home-based learning programs need guidance from the community which should provide additional learning resources and assist students with their practical projects. The implementation of these strategies will increase student motivation because they will enable students to use their acquired skills in their regular activities [1].

Table 1. Demographic Characteristics of Special Education Teachers (N = 108)

Category	Frequency	Percentage (%)
Gender (Female)	72	66.7
Gender (Male)	36	33.3
Teaching Experience < 5 years	45	41.7
Teaching Experience ≥ 5 years	63	58.3

Table 1 presents the demographic characteristics of the 108 special education teachers who participated in the study. The gender distribution shows that the majority of respondents were female, with 72 teachers (66.7%), while 36 teachers (33.3%) were male, indicating a higher representation of females in the special education teaching profession. The sample included 45 respondents (41.7%) who had less than five years of teaching experience while 63 teachers (58.3%) possessed five or more years of teaching experience. The distribution shows that most participants had professional experience which strengthened the research findings. The demographic profile shows teachers from different experience levels which enables a complete understanding of special education practices.

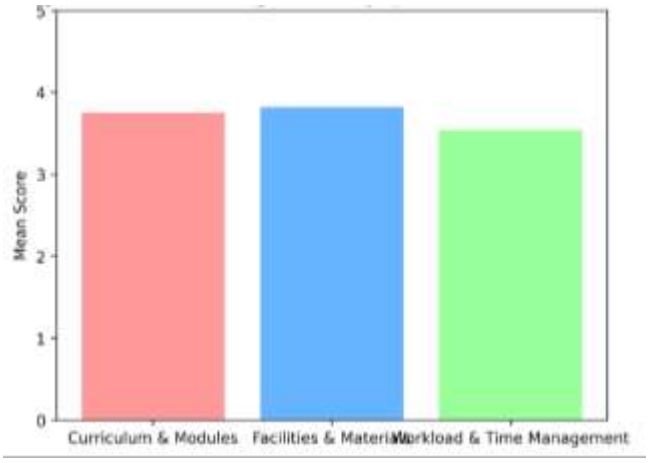


Figure 1. Overall Challenges Faced by Special Education Teachers

Figure 1 shows all obstacles that special education teachers encounter in three important areas. Teachers face moderate to high difficulties across all tested areas according to the average score results. Teachers face the biggest difficulty from the facility and material requirements because this area received the highest average score among the three domains. The study demonstrates that special education programs still struggle with providing adequate teaching materials for their educational programs. The curriculum and modules showed another learning challenge which resulted in higher average scores because teachers faced difficulties building their learning programs. The need for special curricula which meet different student learning requirements resulted in these particular challenges. The difficulties of managing workload and time dedicated to tasks created a major challenge for users although their severity decreased. Teachers deal with two principal pressures which include their obligation to fulfill responsibilities and their need to manage time together with their resource-related challenges. Figure *1* that special education teachers encounter multiple challenges which are interconnected throughout their work. The solution to these problems through comprehensive methods will lead to better teaching results. The results show that institutions need to develop better support systems for their employees. Special education teachers need better work environments which include proper materials and revised curriculum frameworks to minimize their job difficulties.

Table 2. Challenges Faced by Special Education Teachers in Teaching Basic Vocational Food Preparation

Challenge Dimension	Mean (M)	Standard Deviation (SD)	Level
Curriculum & Instructional Modules	3.75	0.48	High
Teaching Facilities & Materials	3.82	0.44	High
Workload & Time Management	3.54	0.50	Moderate–High

Table 2 presents the challenges faced by special education teachers in teaching basic vocational food preparation across three challenge dimensions. The findings are summarized using mean scores, standard deviations, and interpreted levels. The teaching facility and material requirements received the highest evaluation score because their average score reached 3.82 with a standard deviation of 0.44. The resource and equipment access problems in this dimension brought major resource and equipment access problems for users. Curriculum and instructional modules exhibited high challenges which reached a mean score of 3.75 with a standard deviation of 0.48. The teachers experience difficulties when they try to use and modify their instructional materials for vocational food preparation. The workload and time management challenges received a slightly lower evaluation score which showed their average score at 3.54 with a standard deviation of 0.50. The dimension received classification as moderate to high because teachers experience substantial work pressure which extends their time and job responsibilities. The standard deviation values which are relatively low show that respondents maintained uniformity in their views about all the assessment categories. The results show that special education teachers face major difficulties with various aspects of teaching vocational food preparation. The facility- and material-related challenges require better infrastructure and resource materials to address the existing problems. The

school system needs to develop better curriculum resources while maintaining better teacher workload management to solve these problems.

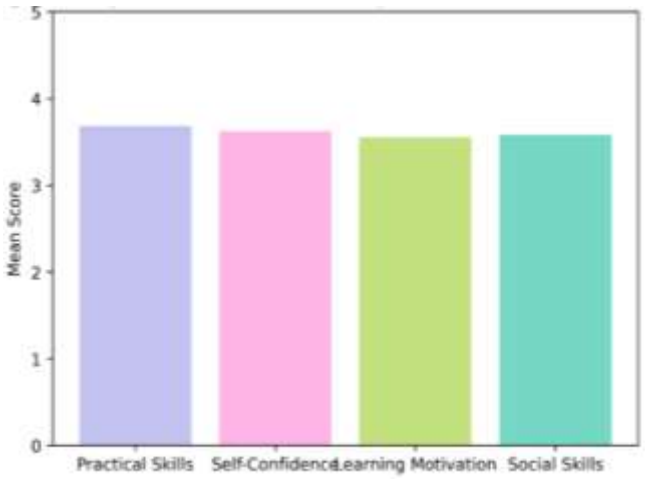


Figure 2. Impact of Vocational Food Preparation Instruction on Students

Figure 2 demonstrates how vocational food preparation instruction affects different student outcomes. The mean scores show positive results for all four assessed domains. The practical skills assessment showed the highest mean score which indicates that vocational food preparation instruction helps students develop their hands-on skills. The average scores of self-confidence and social skills demonstrate that students achieved growth in their individual skills and their ability to interact with others. The learning motivation assessment showed a mean score between moderate and high which demonstrated that students participated more in their learning activities. Figure *2* demonstrates how vocational food preparation instruction helps students acquire skills and achieve complete personal development.

Table 3. Implications of Teaching Challenges on the Effectiveness of Basic Vocational Food Preparation Instruction

Student Outcome	Mean (M)	Standard Deviation (SD)	Level
Practical Skills	3.68	0.46	High
Self-Confidence	3.62	0.49	High
Learning Motivation	3.55	0.52	Moderate–High
Social Skills	3.58	0.47	High

The Table 3 displays which teaching obstacles affect how students achieve their basic vocational food preparation training program. The research results show that participants rated their practical skills at M = 3.68 with a standard deviation of 0.46 and their self-confidence at M = 3.62 with a standard deviation of 0.49 and their social skills at M = 3.58 with a standard deviation of 0.47. The study found that learning motivation which had a mean score of M = 3.55 and a standard deviation of 0.52, was rated at moderate to high levels. The research findings demonstrate that vocational food preparation instruction enables students to develop their skills and achieve personal growth even in the face of teaching challenges. The table demonstrates how instructional effectiveness maintains its effectiveness through various educational outcome measures.

5. CONCLUSION

Special education teachers who teach basic vocational food preparation instruction face multiple delivery challenges which include curriculum restrictions and instructional materials and teaching spaces and their teaching workload. Vocational instruction maintains its positive effects on special needs students by developing their practical skills and self-confidence and social skills and motivation. The research findings demonstrate that effective teaching requires ongoing professional development which includes

proper teaching resources and facilities and time management skills and backing from both school administration and community members. This research study shows effective methods to improve vocational education programs for special education students while helping students develop in all areas of their lives.

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Author Contributions Statement

Name of Author	C	M	So	Va	Fo	I	R	D	O	E	Vi	Su	P	Fu
Puspaalatha Paramasivam	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓		
Syar Meeze Mohd Rashid		✓	✓	✓		✓	✓			✓		✓		✓

C : **C**onceptualization
M : **M**ethodology
So : **So**ftware
Va : **Va**lidation
Fo : **Fo**rmal analysis
I : **I**nvestigation
R : **R**esources
D : **D**ata Curation
O : Writing - **O**riginal Draft
E : Writing - Review & **E**diting
Vi : **Vi**sualization
Su : **Su**pervision
P : **P**roject administration
Fu : **Fu**nding acquisition

Conflict of Interest Statement

The authors declare that there is no conflict of interest regarding the publication of this article.

Informed Consent

All participants were informed about the purpose of the study, and their voluntary consent was obtained prior to data collection.

Ethical Approval

The study was conducted in compliance with the ethical principles outlined in the Declaration of Helsinki and approved by the relevant institutional authorities.

Data Availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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