



Analyzing the Needs of General Education Teachers to Teach Students with Visual Impairment in Inclusive Settings

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ABSTRACT

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The main objective of the current study was to analyze the needs of general education teachers to teach SWVI in inclusive settings and explore the differences based on gender and locality. The quantitative research approach was used to frame the study. A survey was conducted to collect data from teachers. The population of the study comprised teachers teaching in regular schools in 10 divisions of Punjab. 190 teachers (male=56, female=136) were selected for the study from 20 districts, and 2 schools from each division were randomly selected. A self-administered questionnaire comprised of 8 units was used as a research instrument. Data was analyzed through SPSS IBM 22. It was decided to use both descriptive and inferential statistics. The findings of the study revealed the needs of general education teachers in terms of awareness, classroom management, curriculum adaptation, instructional methodology, and materials, and assessment procedures adaptation to accommodate SWVI in inclusive settings. No difference was revealed in the needs of teachers based on gender or locality. Based on the findings, teachers' training, awareness, and empowerment to educate students with visual impairment in inclusive settings is recommended by the researchers.

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1. Introduction

Inclusive Education has become a global agenda since its appearance in Article 24 of the UN Convention for the Rights of Persons with Disabilities. More than 80 countries have signed up to implement inclusive education and many schools are shifting from regular general schools to inclusive schools where all students from different backgrounds and cultures including students with disabilities can learn together without any restriction. Pakistan has also signed this convention but no practical steps have been taken by the Government of Pakistan to implement an inclusive education system.

Inclusive education is the first step towards an equitable education system. Inclusion happens when all students are allowed to be included in one system regardless of their diverse backgrounds and abilities. Inclusion can simply be defined as the fundamental right of every person to access general education without facing any kind of exclusion (Gordon-Gould & Hornby, 2023). Inclusive education responds to the diversified needs of students and allows them to get involved in the local education system. Many researchers around the globe think that inclusive education is related to all kinds of diversity including religions, cultures, ethnicity, languages, and disabilities but some researchers relate it only to the inclusion of persons with disabilities.

Inclusive education talks about accommodating all students with disabilities in general educational settings irrespective of the nature of their impairments. However; it is necessary to understand the nature and degree of impairment so that students with any kind of impairment may be accommodated in inclusive settings according to their specific needs. Like all the groups of disabilities, students with visual impairment are also being included in regular or inclusive settings and a lot of research is being conducted on the inclusion of SWVI (Shaukat, 2023).

Visual impairment is the most vulnerable type of disability. It encompasses a variety of visual challenges ranging from low vision to total blindness (Micheletti, Merabet, Galli, & Fazzi, 2023). When SWVI is included in regular educational settings, they may pose challenges for the teachers as their needs are different from the rest of the class and the general education teachers usually have inadequate knowledge and skills to compensate for their needs.

SWVI may need large print, braille books, magnification, illumination, tactile learning materials, audiobooks, and other supportive materials to fulfill their educational needs. Besides these teaching and learning materials, they need social, emotional, and moral support from their teachers as well as their sighted peers as they usually have low self-esteem, poor or negative self-concept, and other psychological; issues that may cause them to feel inferior and less able than their sighted classmates (Jabeen & Akhter, 2018).

Teachers are the main bodies of any educational system so they play a significant role in the inclusion of SWVI (Naami & Mort, 2023). However, this inclusion can be fully implemented only if the needs of teachers are fulfilled i.e. teachers will have adequate knowledge and understanding of inclusive education, complete awareness about the needs of SWVI, effective pedagogical skills to address the needs of SWVI, and make necessary adaptations in the educational settings to accommodate SWVI. For this, holistic support should be provided to teachers by school administration and community stakeholders (Massouti, Shaya, & Abukhait, 2023), the proper budget should be allocated and the availability of resources should be ensured. The purpose of the current study was to analyze the needs of general education teachers to teach SWVI in inclusive settings so that essential support and resources could be arranged to address those needs. The needs of the teachers were analyzed in terms of knowledge and awareness, classroom management, curriculum adaptation, teaching methodology, teaching and learning materials, assessment procedures, and co-curricular activities. By purpose, the current study is highly significant because need analysis is the first and the most important step toward the implementation of inclusive education.

The objectives of the study were to;

1. Analyze the needs of general education teachers to teach SWVI in inclusive settings.
2. Determine whether there are significant gender differences in the requirements placed on teachers.
3. Find the difference in the needs of urban and rural school teachers to teach SWVI.

The study was conducted to find answers to the following questions;

1. What are the needs of general education teachers to teach SWVI in inclusive settings?
2. Is there any difference in the needs of teachers based on gender?
3. Whether the needs of urban and rural school teachers are similar or not?

The findings of this rigorous study would be helpful for the policymakers as the findings have highlighted the teachers' need for increased awareness, and training to accommodate curriculum, instructions, and material development, hence the government's task to implement inclusive education will become an easy task as teachers are the key stakeholders in the regular schools.

The findings of this study will be beneficial for students with visual impairment as when the needs of the teachers are addressed, they will feel more empowered skilled, and eager to include the students with visual impairment.

2. Literature Review

The inclusion of SWVI in general education settings has gained momentum since inclusive education has become a globally accepted strategy and the United Nations Organization has called for it. Much literature is found regarding the inclusion of SWVI throwing light on different aspects of inclusive education and its benefits and challenges for SWVI. A few of the studies have been cited here.

Hussain, Hameed, and Ashraf (2022) conducted a study to examine the accessibility hurdles in inclusive education of visually impaired students. As revealed from the findings of the study, major hurdles include lack of access to braille books, and braille reading software, problems in accessing notice boards or writing boards in the classrooms, hurdles in accessing canteens, playgrounds, and offices, inaccessible buildings, and unsuitable infrastructure. The researchers argued that Pakistan is lagging in terms of need analysis for the implementation of inclusive education. It was recommended that proper need analysis should be conducted and teachers should be trained accordingly.

Rashid, Ashraf, Jahan, and Javed (2021) conducted a study on framing the inclusion of students with visual impairment in regular schools in Punjab, Pakistan. The findings of the study showed that administrators followed the zero-rejection policy for admission of students and efforts were made to make the school environment friendly for all students however, the school infrastructure was found to be unsuitable for students with visual impairment. Many teachers reported that they have less knowledge to modify the curriculum and assessment procedures and adapt the learning materials for students with visual impairment.

Belay and Yihun (2020) conducted a study to describe the challenges and opportunities for visually impaired students in an inclusive setup. It was revealed from the findings of their study that visually impaired pupils face numerous challenges in inclusive education. Major challenges include; insufficient knowledge and skills of teachers to address the diversified needs of students in inclusive classes, inappropriate teaching methodologies, lack of support from teachers, lack of assistive materials, and inadequate budget. Few opportunities were also highlighted for the inclusion of visually impaired students including the positive attitude of teachers and help and support from sighted peers but these opportunities did not guarantee the effective implementation of inclusive education. It was recommended that teachers should be trained to teach a diversity of students in inclusive classes. Proper resources and budget allocation were also suggested.

Miyauchi (2020) conducted a systematic review of articles published on the inclusive education of students with visual impairment. The findings of the study revealed that the general education teachers' attitudes were both positive and negative and were greatly influenced by student-, teacher- and environment-related factors. Feeling unprepared was a most common teacher-related factor that had a great effect. Science, Geography, and Mathematics were found as the most difficult subjects to be taught to students with visual impairment in inclusive classes. It was recommended that general education teachers should possess a generic set of effective pedagogical skills, should be trained in preparing and using effective learning materials, and should be provided with external support.

A study was conducted by Metatla, Bardot, Cullen, Serrano, and Jouffrais (2020) on the use of technology to enhance opportunities for inclusive education for students with visual impairment. The authors argued that technology had become the central of learning ranging from its use in classroom education to work, training, mastering new hobbies, and acquiring new skills of living. The results of the study shed light on the importance of technology in inclusive education for visually impaired students. Digital learning tools can provide valuable access to information and personalized support for students with low vision or no vision. It was suggested that learning technology should be designed on the principles of inclusion i.e. should be accessible for students of variable visual abilities. Moreover, it was recommended that teachers should be trained to adopt low-cost effective technologies according to the needs of their pupils.

Asamoah, Ofori-Dua, Cudjoe, Abdullah, and Nyarko (2018) conducted a study to explore the perspectives of students with visual impairment, their sighted peers, and their teachers about inclusive education. Most of the visually impaired students and their teachers supported

the idea of inclusion whereas some sighted students and few teachers disliked this educational approach. It was argued that inclusive education is effective in ensuring equal educational opportunities for students with visual impairment. Teachers should be equipped with the necessary skills to teach visually impaired students in inclusive classrooms.

A study was conducted by Altaf, Kawish, and Anwar (2017) to explore the perspectives of stakeholders regarding inclusive education for visually impaired students in Pakistan. The results of their study showed that the inclusion of visually impaired students seemed difficult to implement at grass root level but can be better implemented at tertiary level education (colleges and universities) due to better braille training and mental stability. Financial instability, access to school, parents' selfish attitudes, transport, initial training, psychological issues, and social stigmas were found as main barriers to the inclusion of visually impaired students. It was concluded that inclusive education can represent equity and non-discrimination among students with visual impairment if teachers and parents play their roles positively. Recommendations of the study included training programs for teachers to teach visually impaired students in inclusive education.

Many policies have been formulated to meet the Education for All (EFA) goals as described by UNESCO but inclusion in its fullest context remains a challenge in countries like Pakistan which are trying to stretch minimal resources to reach a maximum number of children. It was mentioned in their study that the concept of inclusion of children with visual impairment was not new in Pakistan; these children had historically been taught alongside the sighted children, especially in religious centers where they learn the theology of the Holy Quran and memorize it and later get employments as Imams. The concept of inclusive education for non-religious institutions is limited to cities and mostly the private sector. Inclusive education can lead to improvements in the educational outcomes of all children but this can only be possible by addressing the limited access to infrastructure, knowledge, assistive technology, learning media, and assessment systems.

A study was carried out by McClelland, O'Connor, Shannon, Saunders, and Little (2023) with the purpose of investigating the experiences of a visually impaired student while participating in inclusive education. The findings demonstrated that the roles of both the teacher and the teacher assistant are extremely important for the successful integration of visually impaired pupils into general education settings. The level of preparation and readiness displayed by teachers has a beneficial effect on the inclusion of students who are visually impaired. The findings of the study also revealed that the general curriculum had several limits, and in order to overcome these constraints and make the programme accessible to visually impaired pupils, some adjustments were required. It was emphasised how vital it is for educators to have ongoing training and professional development in order to successfully integrate visually impaired children into any given curriculum.

Most of the research included in the literature review is based on the attitudes and perceptions of different stakeholders on the inclusion of SWVI. Very few researches shed light on actual experiences of the inclusion of SWVI in regular settings. Need-analysis is the biggest gap in the previous studies i.e. none of the studies properly reveals the needs of the teachers to implement the successful inclusion of SWVI in regular or inclusive settings. The current study will bridge the gap in the literature and will add new pieces of knowledge to the existing literature regarding the inclusion of SWVI.

3. Conceptual and Theoretical framework of the Study

The conceptual and theoretical underpinning of this study is rooted in the inclusive education theories that enforce the idea of equal educational learning opportunities for students with disabilities and other marginalizations to provide them equal access and learning opportunities for their survival in mainstream society. The renowned international conventions on the rights of persons with disabilities including UNCRPD, MDGs, and sustainable developmental goals (SDGs) have passed resolutions to provide equal and equitable learning opportunities to students with disabilities. Inclusion is required to bring change in the infrastructure including teachers' training, curriculum adaptation, and instructional and material modification. To implement all these changes, teachers are one of the key factors and without empowering them the dream of inclusive education cannot become a reality.

4. Methodology

The study was conducted by following the quantitative research approach. A Quantitative survey was conducted to analyze the needs of inclusive education teachers through a structured questionnaire. The population of the study comprised teachers teaching in regular and prospective inclusiveschools of 10 divisionsin Punjab.The sample of the studywas teachers teaching in inclusive settings and regular schools in the 20 districts of Punjab, 2 from each division were selected randomly. The teachers were the source of data collection for this study.The method of multilevel sampling was utilised throughout the data collection process for the investigation.

Table 1: Demographic Information of the Respondents

Sr.#	Demographic variables	F	%
01	Gender		
	Male Teachers	56	29.5
	Female Teachers	134	70.5
02	Locality		
	Rural	77	40.5
	Urban	113	59.5
03	Qualification of Teachers		
	Graduation	70	36.8
	Master of Arts	110	57.9
	MPhil/ PhD	10	5.3
04	Experience of Teaching		
	Less than 5 years	47	24.7
	5-10 years	74	38.9
	10-15 years	46	24.2
	More than 15 years	23	12.2

The table 1 shows the demographic information of the teachers who participated in the current research project. The majority (70.5%) of the teachers were females. The majority of the teachers (59.5%) belonged to urban areas. The majority's (57.9%) qualification was Master of Arts. 38.9% of the teachers had experience between 5-10 years.

4.1. Instruments of the Study

The data from the teachers was collected through the use of a standardised questionnaire which served as a study instrument. Standardised processes were utilised in order to evaluate the reliability and validity of the instrument. More specifically, following the completion of pilot testing, the Cronbach alpha reliability formula was utilised in order to examine the instrument's reliability. After eliminating those three ineffective items from the questionnaire, a total of thirty questions were chosen to comprise the study's concluding version of the questionnaire. To collect comments from teachers for each issue, we used a dichotomous scale in which "Yes" equaled "2" and "No" equaled "1." The validity of the instrument, both in terms of its content and its construction, was evaluated by comparing the opinions of several specialists to criteria specified by the researcher.

Table 2: Reliability Analysis of the Study Variable (N=190)

Variable	K	M	SD	Range Actual	Potential	A
Need-Analysis Questionnaire	30	99	21.2	61-120	30-120	.97

Note. K=No. of items in scale and subscale; M =Mean; SD=Standard Deviation; a= Cronbach's alpha;

Table 2 demonstrates that the assessment measures have a high degree of dependability, which is necessary for carrying out additional studies.

4.2. Data collection Procedure

Simply visiting the schools allowed for the collection of data from educators working at a variety of inclusive and regular schools in the province of Punjab. After initially requesting permission from the administration of the schools, subsequent procedure was carried out after receiving confirmation that the request had been approved. The researchers briefed the participants on the objectives of the study and described its scope before requesting their signatures on the consent form. They were initially provided with instructions, and the privacy of their information as well as their responses was protected throughout the process. The demographic information and the questions were both given to the participants to be filled out

by them in that order. All of the participating educators were responsible for filling out the questionnaires by marking their responses. We would like to express our gratitude to all of the participating teachers as well as the authorities who were concerned for their assistance in the data collection process. In addition, the researcher made use of an online data collection approach known as "Google Form" in order to acquire information from educators working in schools that the researcher was unable to visit in person due to time constraints.

4.3. Data Analysis

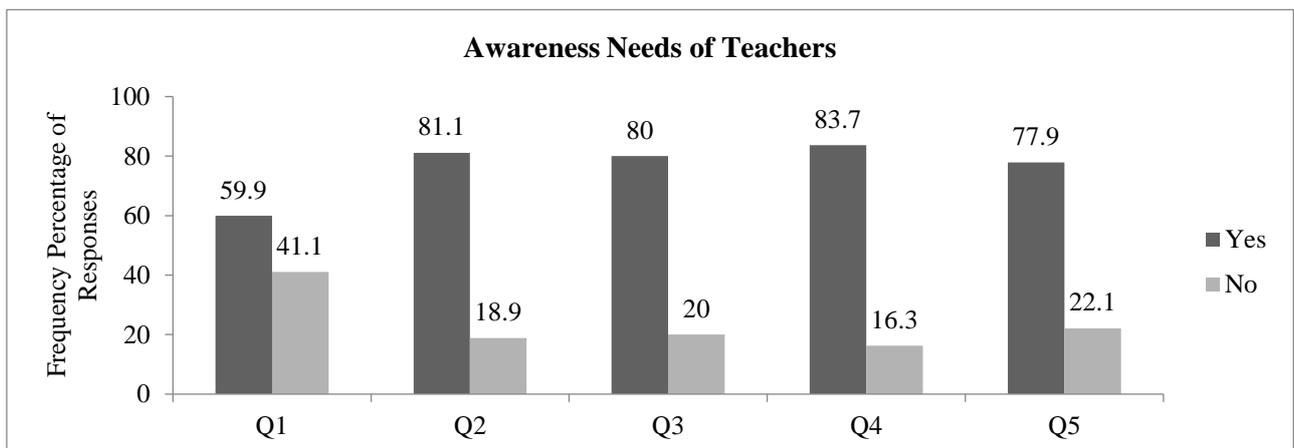
The researcher analyzed the data by using SPSS. A parametric statistical analysis technique was used to run descriptive and inferential statistical analysis due to the level of measurement of variables.

5. Findings

This section presents the findings of the statistical analysis performed on the data that were gathered for the study. Following the presentation of the findings of the descriptive analysis of the needs of teachers, the next step was to provide the findings of the inferential statistics.

Table 3: Awareness Needs of the Teachers

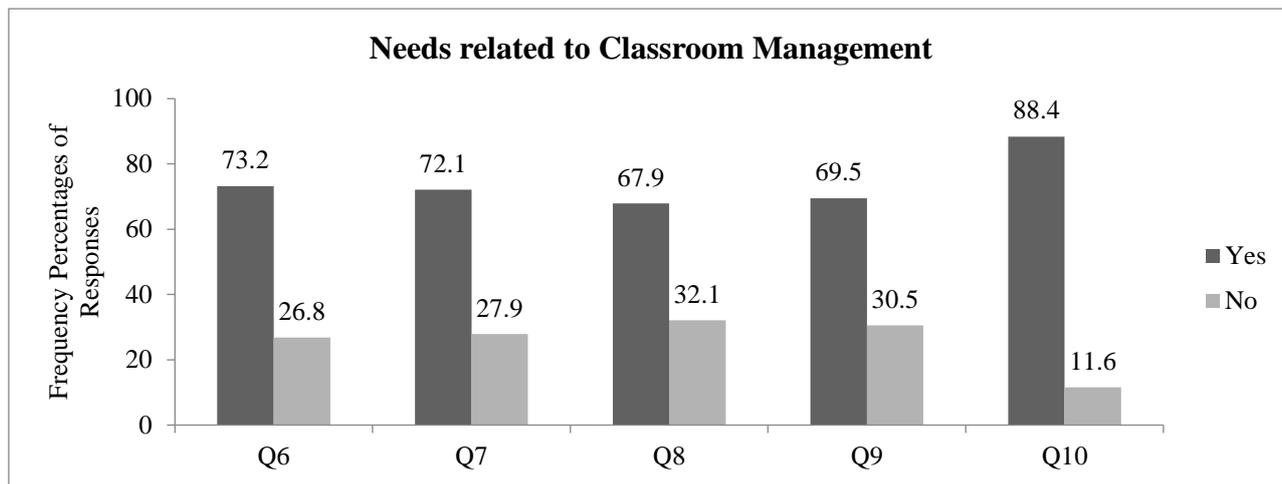
Sr.#	Statements	F		% age	
		Yes	No	Yes	No
Q.1	I need to know about inclusive education	110	80	58.9	41.1
Q.2	I need to know about different types of visual impairment	154	36	81.1	18.9
Q.3	I need to know about the benefits and challenges of inclusive education for SWVI	152	38	80.0	20.0
Q.4	I need awareness of the needs of SWVI while learning in inclusive settings	159	31	83.7	16.3
Q.5	I need guidance to accommodate SWVI effectively in an inclusive classroom.	148	42	77.9	22.1



It is shown in table no 3 that more than half (58.9%) of the teachers needed to know about inclusive education. The majority of the teachers (81.1%) needed to know about different types of visual impairment. 80% of the teachers needed to know about the benefits and challenges of inclusive education for SWVI. The majority of the teachers (83.7%) needed awareness of the needs of SWVI while learning in inclusive settings. A large number of teachers (77.9%) needed guidance to accommodate SWVI effectively in inclusive classrooms.

Table 4: Needs of Teachers Regarding Classroom Management

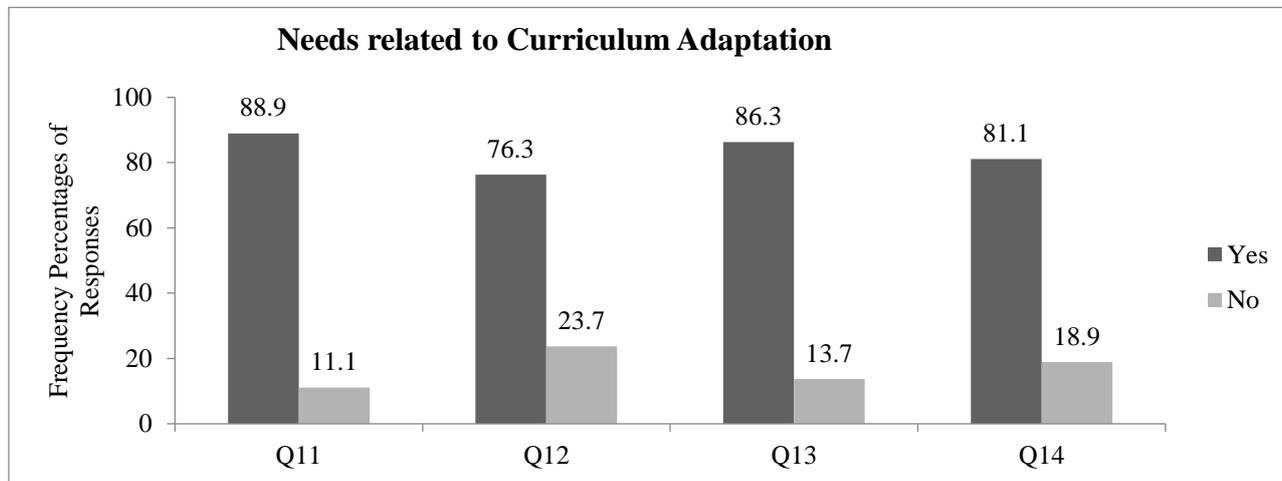
Sr.#	Statements	F		% age	
		Yes	No	Yes	No
Q.6	I need to know how to make the classroom environment satisfying for SWVI	139	51	73.2	26.8
Q.7	I need guidance to adapt classroom setting for SWVI	137	53	72.1	27.9
Q.8	I need to know which seating arrangement is best for SWVI	129	61	67.9	32.1
Q.9	I need to know how to communicate effectively with SWVI	132	58	69.5	30.5
Q.10	I need guidance about managing the behaviors of students in the inclusive classroom	168	22	88.4	11.6



The table 4 shows the needs of inclusive education teachers related to classroom management. Most of the teachers (73.2%) needed to know about making the classroom satisfying for SWVI. 72% of the teachers needed guidance to adapt to the classroom setting for SWVI. More than half of the teachers (67.9%) needed to know which seating arrangement is best for students with visual impairment. Many teachers (69.5%) needed to learn effective communication strategies for SWVI. The majority of the teachers (88.4%) needed guidance for the behavioral management of students in inclusive classrooms.

Table 5: Needs of the Teachers related to Curriculum Adaptation

Sr.#	Statements	F		% age	
		Yes	No	Yes	No
Q.11	I need guidance to adapt the curriculum for SWVI	169	21	88.9	11.1
Q.12	I need to know which curricular areas are difficult for SWVI	145	45	76.3	23.7
Q.13	I need guidance to simplify content for SWVI	164	26	86.3	13.7
Q.14	I need to know about making flexible lesson plans for SWVI	154	36	81.1	18.9

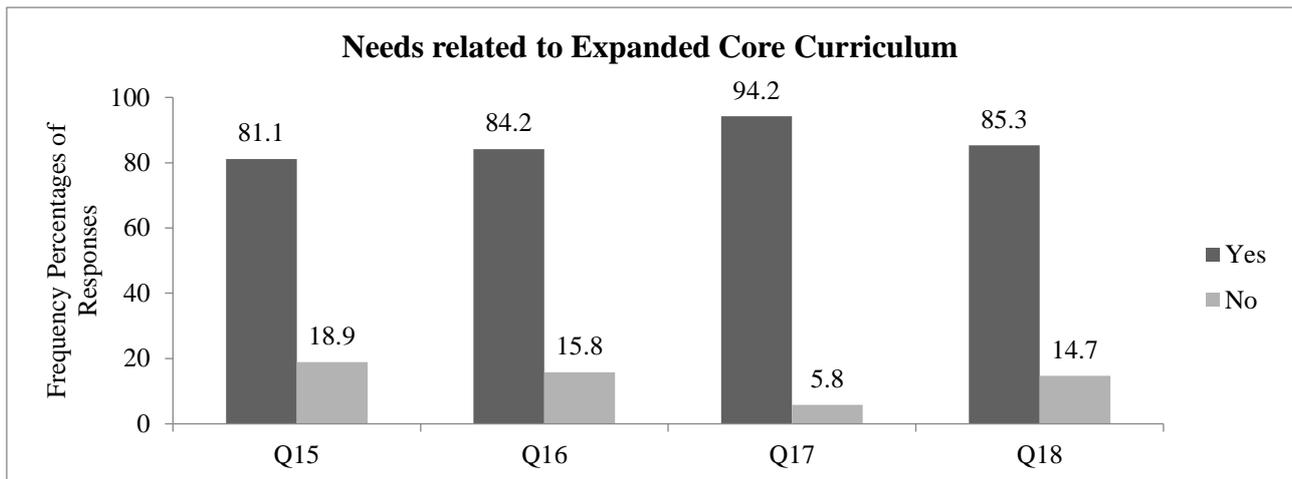


The table 5 describes the needs of inclusive education teachers regarding curriculum accessibility for SWVI. A large majority of the teachers (88.9%) needed guidance for adapting the curriculum for SWVI. 76.3% of the teachers needed to know which curricular areas are difficult for SWVI. The majority of the teachers (86.3%) needed guidance to simplify content for SWVI. A large number of teachers (81.1%) needed guidance about making flexible lesson plans for SWVI.

Table No.6: Needs of Teachers regarding Expanded Core Curriculum

Sr.#	Statements	F		% age	
		Yes	No	Yes	No
Q.15	I need to know about the basics of braille literacy	154	36	81.1	18.9
Q.16	I need guidance about how to teach braille to blind students at the initial level	160	30	84.2	15.8

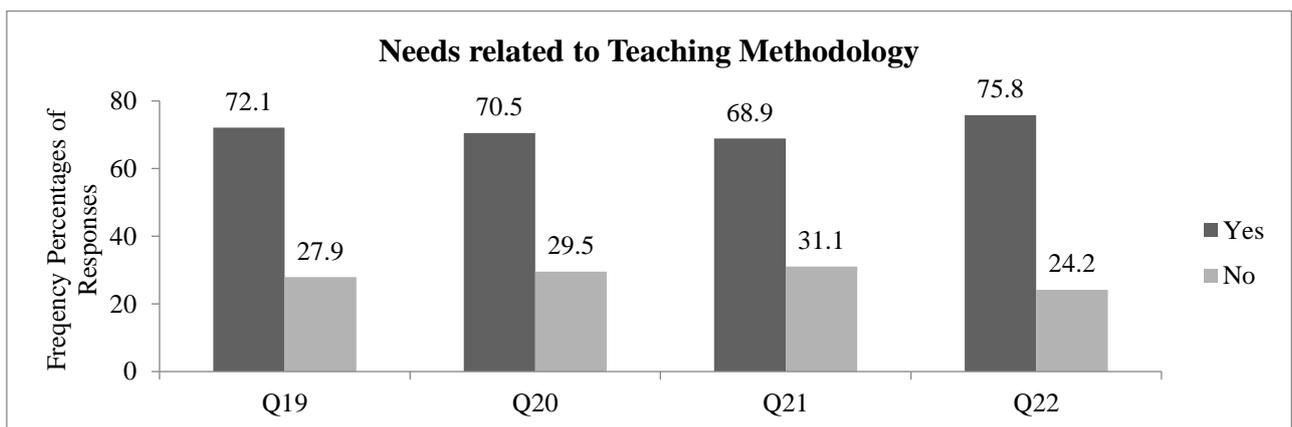
Q.17	I need guidance to give orientation and mobility training to SWVI	179	11	94.2	5.8
Q.18	I need to know how to teach different concepts to SWVI	162	28	85.3	14.7



The table 6 presents the needs of inclusive education teachers related to an expanded core curriculum. The majority of the teachers (81.1%) needed to learn the basics of braille literacy. 84.2% of teachers needed guidelines to teach braille to blind students at the initial level. Almost all teachers (94.4%) needed guidance to give orientation and mobility training to SWVI. Most of the teachers (85.3%) needed to know how to teach different concepts to SWVI.

Table 7: Needs of the Teachers regarding Teaching Methodology

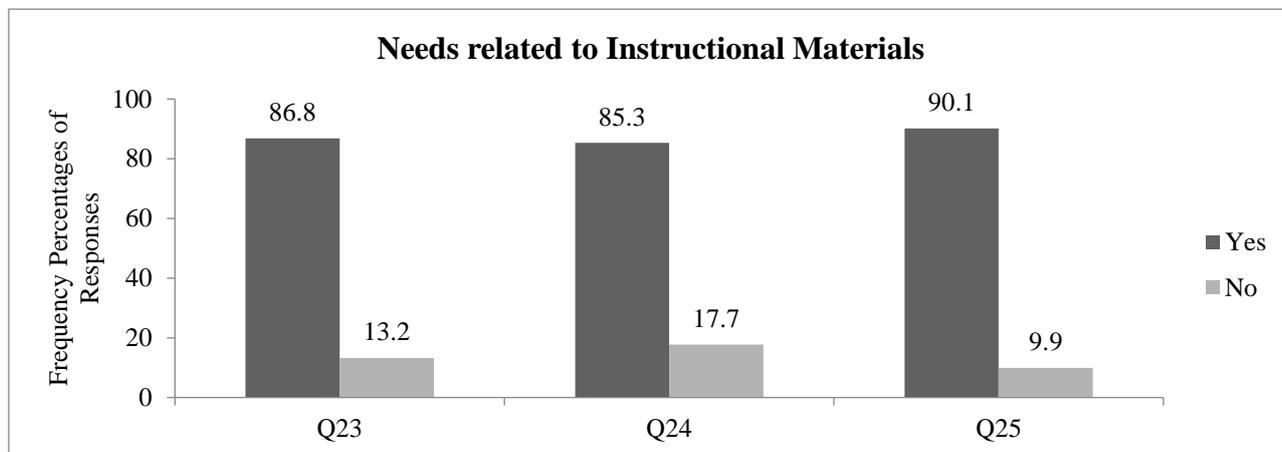
Sr.#	Statements	F		% age	
		Yes	No	Yes	No
Q.19	I need to know which teaching strategies are effective for SWVI	137	53	72.1	27.9
Q.20	I need guidance about the selection of teaching methods that are beneficial for all students	134	56	70.5	29.5
Q.21	I need to know about giving appropriate examples for SWVI during lectures	131	59	68.9	31.1
Q.22	I need to know how to give individualized support to SWVI in an inclusive class	144	46	75.8	24.2



The table 7 highlights the needs of inclusive education teachers related to teaching methodology. Most of the teachers (72.1%) needed to know which teaching strategies were effective for SWVI. 70.5% of the teachers needed guidance about the selection of teaching methods that are beneficial for all students including both sighted students and SWVI. More than half of the teachers (68.9%) needed to know about giving appropriate examples for SWVI during lectures. The majority of the teachers (75.8%) needed guidance for providing individualized support to SWVI in inclusive classes.

Table 8: Needs of Teachers regarding Instructional Materials

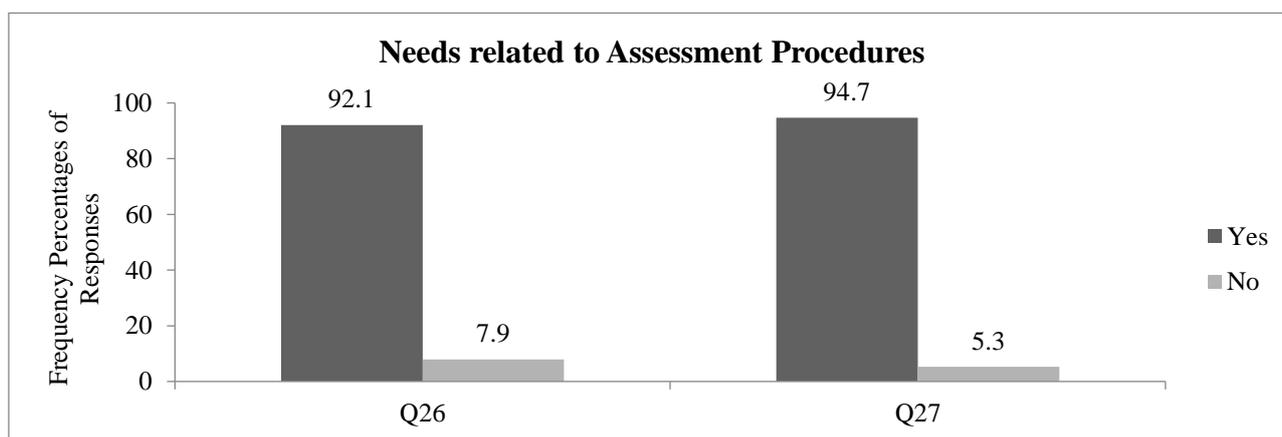
Sr.#	Statements	F		% age	
		Yes	No	Yes	No
Q.23	I need to know which instructional materials are effective for SWVI	165	25	86.8	13.2
Q.24	I need guidance to modify instructional materials for SWVI	162	28	85.3	17.7
Q.25	I need to know which assistive technology can be used to assist SWVI	173	17	90.1	9.9



The needs of inclusive education teachers related to instructional methodology have been shown in the table 8. A large majority of the teachers (86.8%) needed to know which instructional materials were effective for SWVI. 85.3% of the teachers needed guidance for modifying instructional materials for SWVI. A very large number of teachers (90.1%) needed to know which assistive technology can be used to assist SWVI.

Table 9: Needs of Teachers regarding Assessment Procedures

Sr.#	Statements	F		% age	
		Yes	No	Yes	No
Q.26	I need to know which modes of assessment can be used to assess SWVI	175	15	92.1	7.9
Q.27	I need guidance about using flexible assessment procedures	180	10	94.7	5.3

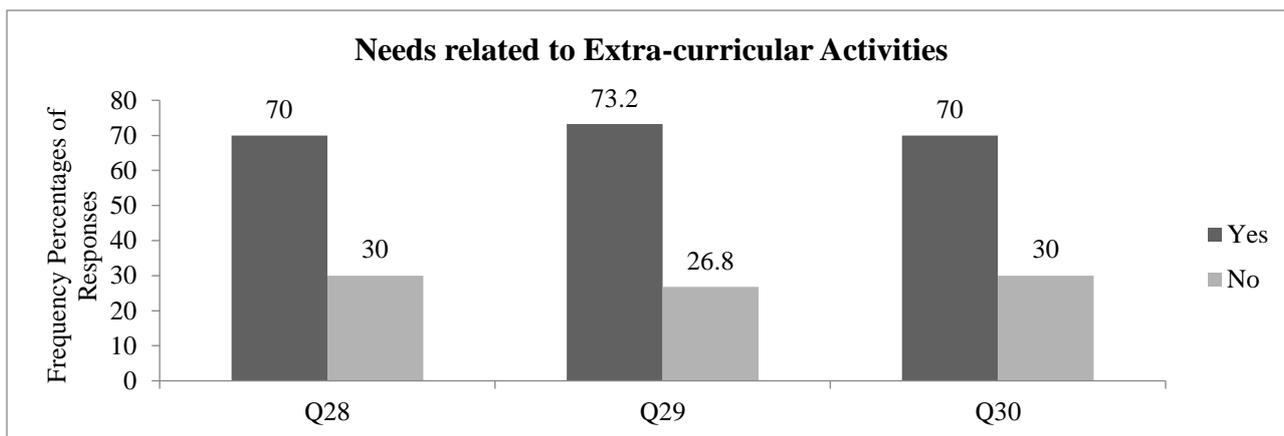


Assessment-related needs of inclusive education teachers have been presented in the table 9. A very large number of teachers (92.2%) needed to know which modes of assessment they could use to assess SWVI. An even larger number of teachers (94.7%) needed guidance about using flexible assessment procedures.

Table 10: Needs of the Teachers related to Extra-curricular Activities

Sr.#	Statements	F		% age	
		Yes	No	Yes	No
Q.28	I need to know which co-curricular activities are good for SWVI	133	57	70.0	30.0

Q.29	I need to know which sports and games SWVI can take part in	139	51	73.2	26.8
Q.30	I need guidance to minimize barriers to physical activities for SWVI	133	57	70.0	30.0



It is revealed from the table no 10 that more than half of the teachers (70%) needed to know which co-curricular activities are good for SWVI and 73.2% of the teachers needed to know which sports and games SWVI can take part in.

Table 11: Summary of Need-analysis

Sr. No	Areas of Needs	Percentage
1	Awareness needs	76.3%
2	Needs related to classroom management	74.2%
3	Needs related to curriculum adaptation	83.2%
4	Needs related to expanded core curriculum	86.2%
5	Needs to be related to the teaching methodology	71.8%
6	Needs related to instructional materials	87.4%
7	Needs related to assessment procedures	93.4%
8	Needs related to extracurricular activities	71.6%

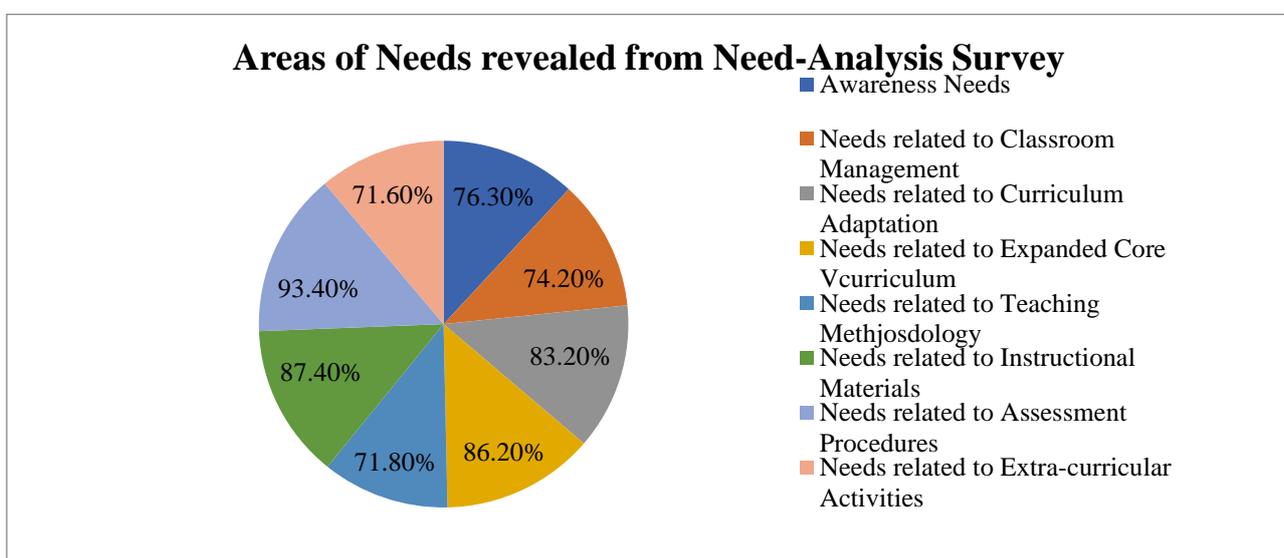


Figure 1: Summary of teachers' needs in chart

It is revealed from the table no 11 and figure no 1 that the most frequent areas of need are assessment procedures, curriculum adaptation, and instructional materials.

Table 12: Independent Samples t-test Comparing the needs of Inclusive Education Teachers based on Gender

Gender	N	Mean	p	Df
Male	56	96	.13	188
Female	134	106		

The data shown in the table no 12 demonstrates that there is not a statistically significant difference ($p > .05$) in the requirements that male and female educators have to meet in order to achieve SWVI in inclusive settings.

Table 13: Independent Samples t-test Comparing the needs of Inclusive Education Teachers based on Locality.

Locality	N	Mean	p	Df
Urban	113	96	.19	188
Rural	77	103		

It is revealed from the table no 13 that there is no significant difference ($p > .05$) in the needs of urban and rural areas teachers to reach SWVI which means that teachers from both kinds of areas have similar needs.

5.1. Discussion

To many researchers; inclusive education is a process of including students with disabilities in regular schools. Inclusive education follows the social model of disability and it is a right-based approach to ensure the inclusion of disabled students in their nearby schools just like their non-disabled counterparts. The inclusion of SWVI is also been practiced since the emergence of inclusive education however; it has not been achieved to its fullest potential due to several reasons including a lack of proper need analysis (Hussain et al., 2022).

The inclusion of visually impaired students in regular schools is lagging behind all other groups of disabilities because visual impairment comes with many challenges that are difficult to cope with. SWVI may have social and psychological issues in addition to their educational problems which may limit their participation in inclusive settings (Zegeye, 2019).

Teachers' role is of great worth in the inclusion of SWVI. The attitudes and perceptions of teachers greatly affect the inclusion of SWVI. Many SWVI do not go to regular schools because of the negative attitudes of teachers and other sighted students. Besides this, teachers face numerous challenges in including SWVI in regular schools such as a lack of adequate knowledge about visual impairment and inclusive education and proper skillset to address the needs of SWVI (Asamoah, Tam, & Cudjoe, 2023).

The first objective of the study was to analyze the needs of general education teachers to teach SWVI in inclusive settings. A survey was conducted for this purpose. Coupled with the findings of the study conducted by (Miyachi, 2020), the findings of study have revealed that the majority of general education teachers need to get adequate knowledge and awareness about visual impairment and its educational implications. Most of the teachers have less understanding of the needs of SWVI and the effective strategies to address those needs in inclusive classrooms.

Classroom management is an important aspect of the instructional process as the classroom is the place where the students spend most of their school time and if the classroom environment is not satisfying for the students, they cannot benefit from the instructional process. In correspondence to the findings of the study conducted by (Dollinger, 2023), the findings of the current study revealed that general education teachers need guidance and support to make the classroom environment accessible and satisfying for SWVI. Teachers need to learn how to adapt classroom settings according to the needs of SWVI.

The curriculum is the main source of achieving instructional objectives. As SWVI cannot access the regular curriculum due to visual limitations, it is the responsibility of the teachers to adapt it and make it accessible for SWVI. Coupled with the findings of Chow, de Bruin, and Sharma (2023) general education teachers need guidance in adapting the curriculum for SWVI. They also need help and guidance in preparing and adapting instructional materials for SWVI. General education teachers either need to learn braille by themselves or they need teaching assistants who can read and write braille to compensate for the educational needs of blind students.

As revealed from the findings of the study conducted by Rashid et al. (2021), the findings of the current study also revealed that general education teachers lack effective pedagogical

skills to teach SWVI in regular settings without compromising the rights of the sighted students. They need guidance for the selection and use of appropriate teaching methods that can fulfill the needs of all learners irrespective of their visual status. The assessment was the most obvious area that needed to be addressed. Many teachers needed to know which modes of assessment could be used to assess SWVBI and how to use flexible assessment procedures according to the abilities of the students.

Coupled with the findings of the study conducted by Gordon-Gould and Hornby (2023), the findings revealed that general education teachers need guidance about how to give orientation & mobility training to SWVI as it is essential for their independence. The study also revealed that general education teachers need assistance in accommodating SWVI in different co-curricular activities.

Following the findings of Tamim (2021), there was no gender difference in the needs of general education teachers to teach SWVI in regular or inclusive settings. Coupled with the findings of the study conducted by McCabe and Ruppap (2023), the findings of the study revealed no difference in the needs of urban and rural school teachers to teach SWVI in inclusive settings.

6. Conclusion

The inclusion of SWVI in regular settings may be challenging in many ways so conducting a proper need analysis is crucial to make inclusion successful. The current study aimed to analyze the needs of general education teachers to teach SWVI in inclusive settings. Based on the findings of the study, it is concluded that major areas of need are knowledge and awareness, classroom management, curriculum adaptation including expanded core curriculum, instructional methodology and materials, assessment procedures, and extra-curricular activities. General education teachers need support, guidance, and help from school administration and community stakeholders to fulfill their needs so that they can teach SWVI effectively in inclusive settings.

Based on the findings of the study, the researcher gives the following recommendations;

- Qualitative need analysis may be conducted as it can offer a phenomenal understanding of actual needs for the present stakeholders and provide guidance to the future researchers in the same area of research.
- Proper budget allocation and availability of resources should be ensured to fulfill the needs of teachers and students in inclusive settings.
- General education teachers should be trained to accommodate students with diverse needs in regular schools.

The following were the limitations of the study;

1. Since the size of the study's sample wasn't particularly huge to begin with, it's possible that the results of the study can't be generalised to the entire population.
2. Due to the fact that the questionnaire was self-administered, there is a possibility that the results were influenced by the element of subjectivity.
3. Need analysis was conducted only through a structured questionnaire.

The following were the delimitations of the study;

1. The researcher delimited the study to only the schools of Punjab.
2. The researcher delimited the study to only quantitative data analysis due to the lack of time and willingness of inclusive school administrators as qualitative study needs rigorous fieldwork in naturalistic settings and in-depth interviews and field notes.
3. The researcher delimited collected data online from the schools that she could not visit personally.

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