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An Analysis of the Information-Seeking Behavior of Teachers in Special Education Institutes in Lahore: Needs, Practices and Challenges

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Abstract

The purpose of this article is to elucidate and analyze the information-seeking behavior of educators in special education institutions in Lahore. It aims to investigate the characteristics of information-seeking behavior and the obstacles that special education teachers encounter in accessing pertinent information. This research was conducted in four phases. In the initial phase, a comprehensive review of relevant literature was undertaken to comprehend the theoretical and methodological aspects of the study. The survey method was selected for data collection in the second phase. A questionnaire was adapted and administered to all respondents from public sector special education institutions (schools and colleges) in Lahore. The response rate was 44.6%. The questionnaire comprised 83 questions designed to identify specific facts relevant to the research. The total population size was 480, and the sample size was 214, as determined by the Morgan and Krejcie (1970) table for sample determination. A simple random sampling technique utilizing the lottery method was employed. 480 questionnaires were distributed, and the teachers were instructed to complete them manually, with 214 questionnaires submitted. In the third phase, the collected data were tabulated and analyzed to derive conclusions. In the final phase, conclusions were drawn, accompanied by recommendations. It was determined that special education teachers rely on specific sources and employ particular techniques for teaching, and their information needs differ from those of general education teachers.

Keywords Special Education Teachers; Information Seeking Behavior; Challenges of Seeking Information

Introduction

In recent years, the role of information in education has garnered significant attention, particularly in special education. Educators in special education encounter unique challenges, such as working with students who have diverse disabilities and learning needs. To address these challenges, educators require access to current information on educational strategies, resources and intervention techniques

that support effective teaching and learning. Information-seeking behavior, which encompasses the processes of searching, identifying, evaluating and utilizing information, plays a crucial role in this context. Examining how special education teachers seek and use information can provide valuable insights into their professional development needs and the types of support they require.

The current "Era of Information" has rendered information a fundamental resource for educators. The ability to access diverse types of information rapidly, which was once challenging, is now a reality. Educators must manage various information needs related to lesson preparation, student motivation, and self-study, among others. The study of information needs and information-seeking behavior has historical roots. In 1948, the Royal Society addressed the "information explosion" by proposing a system for the circulation of scientific papers, which led to the cessation of traditional scientific journals (Bernal, 1960). Over the past seven decades, researching information-seeking behavior has become a prominent field, with over ten thousand publications on the topic by the 1990s (Case, 2002).

In the past 30 years, considerable literature has emerged on information needs and information-seeking behavior from various perspectives (Anwar, Al-Ansari, & Abdullah, 2004). Sharma (1992) emphasized the importance of not only understanding users' information needs but also examining how they select and store information at specific times. With the significant increase in available information sources, new challenges have emerged, such as ensuring the retrieval of information that aligns with actual user needs and ensuring the validity and reliability of retrieved data. Baby et al. (2000) noted that the rapid growth of information in the twentieth century, driven by Information and Communication Technology (ICT), has had a profound impact on all areas of human life. Muhammad (2015) described information-seeking behavior as involving the search, location, retrieval, and use of information, influenced by emotional, educational, and demographic factors. The current study investigates the information needs and practices of special education teachers in Lahore, with the objective of understanding their perceptions of information-seeking and identifying the challenges they encounter in accessing and utilizing information to enhance their teaching practices.

Research Questions

- What are information needs of teachers of special education institutes?
- What type of information is used by teachers of special education institutes?
- What kind of sources and tools are used in information-seeking process by teacher of special education institutes?
- What are problems of information-seeking confronted by teachers of special education institutes?

Literature Review

Information-seeking behavior plays a crucial role in the professional development and effectiveness of special education teachers. Beginning special education teachers reported needing the most assistance in learning special education policies, procedures, and paperwork, as well as accessing available materials and resources (Whitaker, 2003). This highlights the importance of information-seeking skills for new teachers in the field. There is a positive correlation between information-seeking behavior and innovative behavior among nursing students, which may have implications for special education teachers as well (Zhong et al., 2018). The study found that information utilization was the strongest predictor of innovative behavior, suggesting that the ability to effectively seek and use information could lead to more innovative teaching practices in special education. Fostering strong information-seeking behaviors among special education teachers is essential for their professional growth and ability to meet the complex needs of students with disabilities. Integrating information literacy education into teacher preparation programs and providing ongoing support for accessing and utilizing resources could help address the challenges faced by special educators, potentially reducing attrition rates and improving the quality of education for students with special needs (Brownell & Smith, 1992; Whitaker, 2003; Zhong et al., 2018).

A large number of definitions of information are available having different context used by researchers. Generally, the operational definition of information is that information is a way to inform someone about something for providing a new knowledge about certain things. Because information is not a physical thing, therefore, it is difficult to define it. It is an unearthly sensation that arises among real bits and pieces (Palmius, 2005). Rios Ortega (2014) explained that according to the background of librarianship, the term information refers to data and knowledge. The term information

has become more important for research in the field of library and information science and other disciplines related to it such as cognitive psychology and library science. The origin of information-seeking behavior is as old as the concept of information. The concept of "information needs and uses" came across in 1960s and the concept of information behavior was derived in the late 1990s. There has been a continuing change in the research of information behavior. The system orientated paradigm was shifted to a user orientated paradigm (Khan, 2011)."

Wilson (2000) has presented the concept of human information-seeking behavior. He has explained that concept of modern study about human information-seeking behavior was originated in 1948 for the research about library users. Later on, the term information needs has changed its consequence towards information seeking and use of information. According to Dervin (1986) in the beginning of 1980 the scholars have started to understand the worth of concepts about information needs, information-seeking and use of information. The information need of users was brought into attention of cognitive science researchers. It was a new terminology that was applied in research. A model can be defined as a structure to think about a problem. It is a presentation of relationships among theoretical observations. Models are the graphical and diagrammatic presentations. Models are helpful to explain the activities of seeking information, the cause and concerns of the problem and the relationships among all stages of information-seeking behavior. There are different models to identify the process information-seeking behavior.

Kuhlthau (1991) presented a model of seven stages for the information-seeking process. He defines these steps as 1) introduction of problem 2) definition of problem 3) selection of source 4) formulation of queries 5) inspecting the results, and 6) pulling out useful information 7) Presentation. She studied as how students search the information for their writings. Models of Information-seeking Behavior have passes from different stages of development. Jarvelin and Wilson (2003) studied many information behavior models such as (Dervin, 1986; Kuhlthau, 1991; Wilson, 1981). They have deliberated the functions and purposes of these theoretical models in scientific research. They explored that some of these models are of summary type and others are analytic. Every model has a distinguished research purpose.

Information Seeking Behavior of Special Education Teachers

Special education teachers face unique challenges in their profession, requiring specific support and resources to effectively carry out their roles. Research indicates that beginning special education teachers primarily seek assistance in learning special education policies, procedures, and paperwork, as well as emotional support, system information, and available materials and resources (Whitaker, 2003). These teachers reported receiving significantly less assistance than needed, particularly in areas related to special education policies and procedures, materials and resources, and curriculum and instruction. Special education teachers seek support in various areas, their career motivation and attitudes towards inclusive education are influenced by multiple factors. In China, for example, teachers were found to be largely extrinsically motivated, with some feeling a motivated and regretful of their career choice (Feng, 2012). This highlights the importance of addressing not only the practical aspects of the job but also the intrinsic motivation and job satisfaction of special education teachers. Information-seeking behavior of special education teachers is closely tied to their professional development needs and job satisfaction. To improve retention and effectiveness, it is crucial to provide targeted support in areas such as paperwork management, resources, and curriculum development (Platt & Olson, 1990). Additionally, fostering a supportive work environment, offering opportunities for professional growth, and addressing job design factors can significantly impact special education teachers' intent to stay in the field and their overall job satisfaction (Gersten et al., 2001).

Information-seeking behavior depends upon human activities of seeking and use information. It refers to how people seek information in different contexts (Fisher, Erdelez & McKechnie, 2005). According to Wilson (2000) information-seeking behavior is such a search for information in which information seekers search for the information according to their information needs to accomplish different goals. Information need is an action and Information-seeking its reaction to fulfill that need. It closes the gap between information and information-seekers. According to Kuhlthau (2004), information need is a real but unexpressed demand for information or an unclear area of hesitancy that may be communicated in an unclear, confused remark. Meanwhile, information-seeking behavior refer to how a person look for the information they need using certain technique and tools or gathering

information in a variety of library materials, such as encyclopedias, periodicals, and more recently, electronic media. According to Igwe (2012) information-seeking behavior is a person's method of locating and gathering the information for personal use, knowledge improvement and updating himself /herself. Peoples 'information-seeking behavior depends on their education, use of library and the amount of time they want to spend looking for particular information.

Information Needs of Special Education Teachers

The information needs of special education teachers extend beyond their initial years of teaching. Research indicates that special educators spend their time on various tasks, including academic instruction, non-academic instruction, instructional support, consultation/collaboration, assessment, planning/preparation, discipline, supervision, and paperwork (Vannest & Hagan-Burke, 2009). Understanding how teachers allocate their time can inform efforts to enhance their effectiveness and address their information needs. Additionally, the complexity of inclusive education settings requires special educators to develop a sophisticated understanding of school and district organizational and political functions to access and utilize resources for their students effectively (York-Barr et al., 2005).

Professional and scholarly literature has been reviewed and synthesized. Various studies have conducted to explore the information needs of teachers of special education, the problems they face in relation to students and management of special education Institutes. Teachers have need information for different activities like classroom teaching, research and Publications. First time the idea about the information needs was introduced by Robert S. Taylor. He was an American information scientist. He was researched on "The Process of Asking Questions". His paper was published in American Documentation. He explored that term "Information Needs" is the combination of two words "Information" and "Needs. He has heightened the relationship of these two words and the relationship between them (Khan, 2011). Forsythe, Buchanan, Osheroff, and Milner (1992) explored that information needs depends upon desired set of information with internal motivation. It creates such as environment that totally depends upon the addressing by the information-seeker and cooperation amongst academic groups. They have talked about major problems in medical field to classify the information needs for the empirical data analysis.

Leckie et al., (1996) enlightened that information needs depends upon the circumstances within which information seekers works. Their information needs effected by the sources used for them as well as their awareness about the features of information. They highlighted different other variables, strongly related to the information needs such as demographic information, context of information, frequency and urgent nature of information, expectedness of Information , importance and complexity of information. Wasburn-Moses (2005) described the role of special education teachers in three main areas: (1) as educationalists of the special needs of students and their custodians (2) as leaders in endorsing smooth running of extra-curricular activities and projects and (3) as bureaucrats of their professional development. He quantified that information needs depends upon the purpose and types of information needs.

Okonoko, Njideka, and Mazah (2015) study found the following: The term information needs often been known as a desire or requirement of an individual or group in obtaining information to satisfy their desire, people usually tend to find information for example to fulfill their desire such for a school assignments, entertainment, religious and apart when there is confusion, lack of knowledge or stuck understanding certain things or issues. Information needs are the things that an individual or group of individuals need to complete personal tasks, extracurricular activities, and other kinds of various tasks. It typically manifests when a person senses a gap between knowledge that is known and unknown". According to Awang (2016) the information needs of special education teachers depends upon the types of resources they choose. He has explained that the level of satisfaction of information need is directly proportional to the effort for searching for it. He pointed out that the two aspects; the responsibility of teachers of special education and the complication of information both require substantial assistance from institutions to equip them with good facilities, so that the teachers can manage the current state of knowledge in the performance of their duties. Malik and Reba (2020) find out that the special education teachers face very hard behavior of their students and also face the complications of communication in classroom. They find out the different strategies to minimize the

classroom problems; cooperation and collaboration between teachers, parents and students and administrative support of teachers for the advancement of creative learning atmosphere in classroom.

Information Sources consulted by Special Education Teachers

Special education teachers rely on various information sources to support their practice and address challenges. According to research, beginning special educators primarily seek assistance from other special education teachers, followed by assigned mentors and building administrators (Whitaker, 2003). They receive the least support from general education teachers and special education administrators. Special education teachers heavily rely on their colleagues for support, there is a notable lack of collaboration between general and special education faculty. This gap in support is particularly concerning, as perception of colleague support is a strong predictor of retention plans for special education teachers (Jones et al., 2013). Furthermore, the collective responsibility among faculty members significantly influences beginning teachers' experiences and retention. The primary information sources for special education teachers are their peers within the special education field. However, the research highlights the need for improved collaboration between general and special education faculty, as well as enhanced support from administrators. Strengthening these relationships and support systems could potentially address some of the challenges faced by special educators, such as excessive paperwork, inadequate resources, and lack of recognition (Platt & Olson, 1990), ultimately improving teacher retention and the quality of special education services.

Malouf's (1989) stated that forty special education teachers prefer to use the software for evaluation of information. He described that the highest responses were consisted on compatibility and suitability of hardware for students and uses of software. Information sources selected by the teachers are software manuals and written description from reviews. Marjatta and Minna (2009) concluded special education teachers have to do three special types of works as 1.teaching, 2.consulting the students and 3.identification of background. Special education teachers discussed the background of students with their parents at the time of admission. Ference (2010) elaborated that the character and accountabilities of special educators in Pennsylvania are distinctive in nature and their duties fluctuate according to the employment positions of special educators. Most of special educators consider them as professionals and present themselves as teachers, consultants and administrators. Servais (2012) investigated a study about information needs of special education teachers, their competencies, information sources desired by them and information-seeking behaviors according to their level of teaching experience. He implemented a mixed research methodology to his research. He has collected the data from 85 elementary and intermediate school teachers (from Junior Kindergarten to Grade 8). The data was collected by using and online questionnaire. He has also conducted the follow up interviews of 11 teachers for the further exploration of the problems. He has classified the participants of his study into three groups according to their level of experience (i.e., beginner, middle, and expert teachers). He founded in his study that the teachers of special education should be well educated about their profession as the beginners, the middle level and the expert teachers have different level of expertise.

Purposes of Seeking Information of Special Education Teachers

Tahir, Mahmood, and Shafique, (2008) stated that the purpose of seeking information described by teachers was teaching or lecture preparation. Most of the teachers seek information to instruct the students, to provide assistance to researchers, to develop their skills and to keep them up to date with current developments. Laloo, and Buhril (2013) have explained the information-seeking behavior of teachers of special education and their information needs in their study. They elaborated that most of the respondents search information to keep up-to-date with latest advancements and to get general knowledge for teaching disabled children. They have explained that a lot of unique ideas and techniques are required for special education teaching. Teachers must have to search for information before the start of school academic session. Special education teachers seek information for various purposes, primarily to enhance their professional skills and better serve their students with special needs. Research indicates that beginning special education teachers require assistance in learning policies, procedures, paperwork, and accessing materials and resources (Whitaker, 2003). They also seek emotional support and system information related to their schools. Special education teachers not only seek information for their own development but also to guide general education teachers in inclusive environments. They emphasize the importance of general educators making informed decisions based on assessment data, developing understanding and compassion for students with

special needs, and fostering effective communication (Byrd & Alexander, 2020). This highlights the dual role of special education teachers as both learners and mentors.

Special education teachers seek information to navigate the complex and demanding contexts of their practice (York- Barr* et al., 2005). Their information-seeking purposes extend beyond personal skill development to include supporting inclusive education, understanding organizational and political aspects of schools, and accessing resources for students. This multifaceted approach to information seeking aligns with the evolving nature of special education and the need for teachers to adapt to changing educational landscapes (Dewey et al., 2017; Leko et al., 2015).

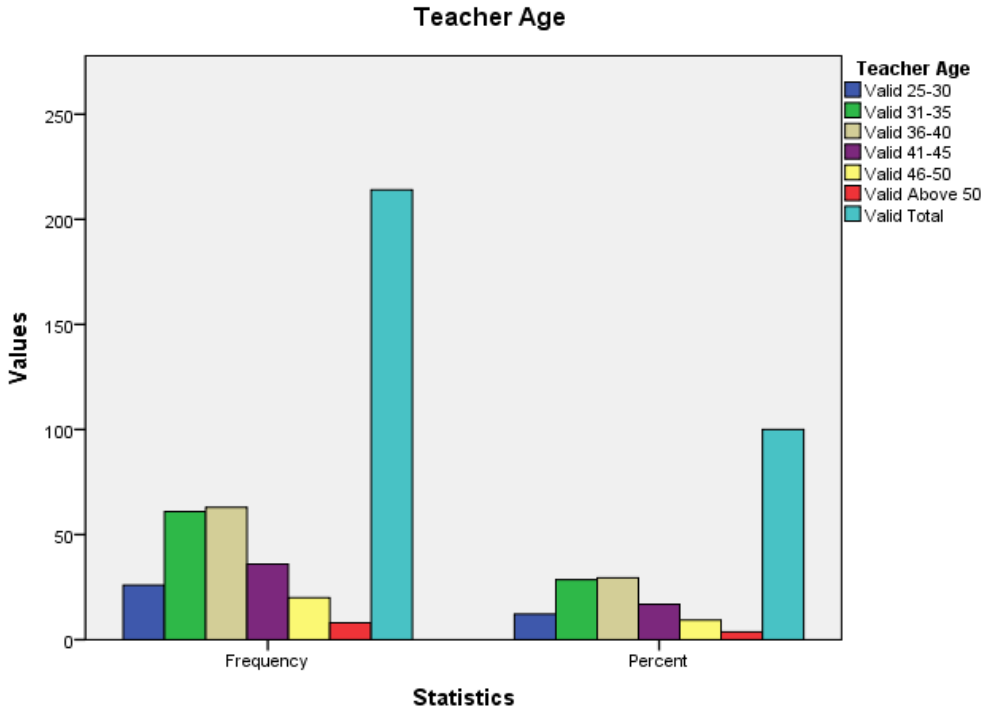
Problems faced by Special Education Teachers to Seek Information

Special education teachers face numerous challenges in seeking information and support during their early years of teaching. Research indicates that novice special educators struggle with issues related to instruction, curriculum, understanding the system, mainstreaming, inclusion, and exhaustion They also report needing significant assistance in learning special education policies, procedures, and paperwork, as well as accessing available materials and resources (Whitaker, 2003). Special education teachers perceive a need for assistance in various areas, they report receiving significantly less support than required, particularly in learning special education policies, procedures, and paperwork; materials and resources; and curriculum and instruction (Whitaker, 2003). This discrepancy between needed and received support highlights a critical gap in the information-seeking process for new special educators. The challenges faced by special education teachers in seeking information are further compounded by the complex and demanding contexts of their practice (York-Barr* et al., 2005). These difficulties contribute to high attrition rates among special educators, with stress due to job design being a leading negative factor (Gersten et al., 2001). Seekers of information have often faced different barriers in the process of seeking information for use. Barriers can possibly cause the delay to meet the information needs. Dervin (1999) elaborated the two variables (a) the power structure and (b) the forces of authority create a hindrance on the creation of information and use of information. Jordan (2001) concluded that the lack in the availability of different variety of information creates a hindrance for information seekers to fulfill their information needs. Leckie et al., (1996) stated that barriers to seek information are depends upon the achievement and engagement of information sources. He stated an example; information is irrelevant if it is out dated. Fourie et al. (2006) explained that if there is a lack of information literacy among seekers of information than their capability to find out and use of information. Gunasekera and Balasubramani (2020) described that the problems are the boundaries in seeking information faced by a school teachers like as; lack of experience to deal with simple and insightful disabilities, creating activities for all students, education students having less disabilities, dealing with death of students, lack of sufficient aides for teachers, kindness for students, dealing with parents of all type of students, preparation and addressing of a lesson plan to individuals, and lack of coordination with rehabilitations.

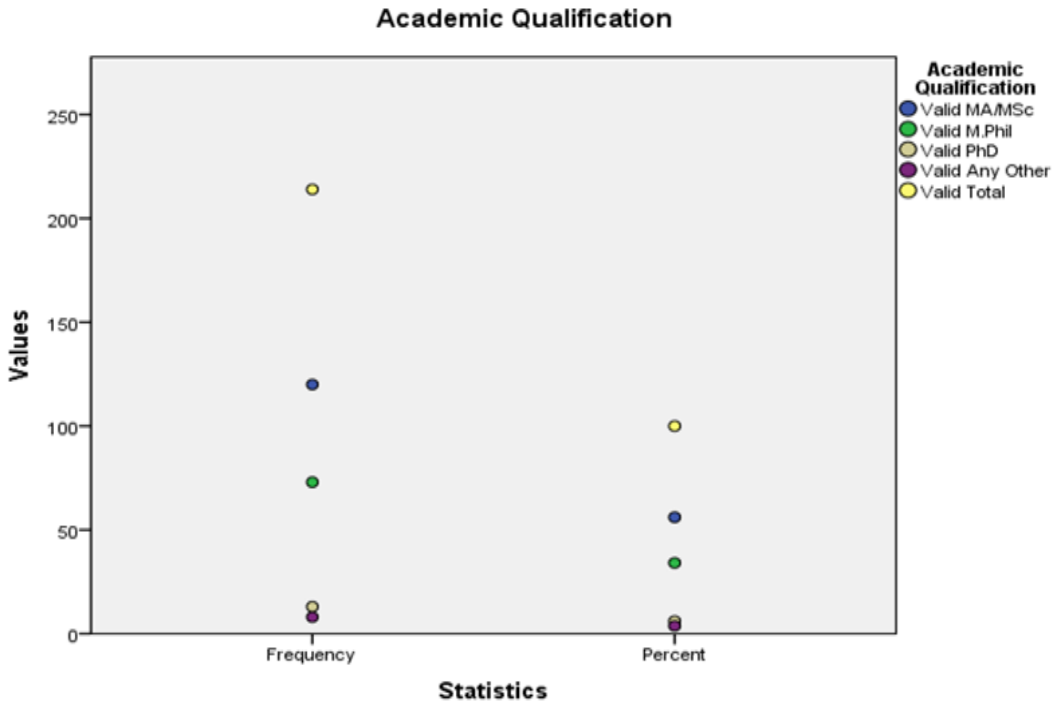
Material and Methods

The study employs a quantitative research approach to investigate the information-seeking behavior of special education teachers in public sector institutions in Lahore. A descriptive survey method is used, utilizing a structured and adapted questionnaire to collect data from a random sample of 480 teachers, resulting in 214 completed responses. Data is gathered through multiple channels, such as in-person visits, emails, and electronic communication, and analyzed using SPSS with descriptive statistical techniques.

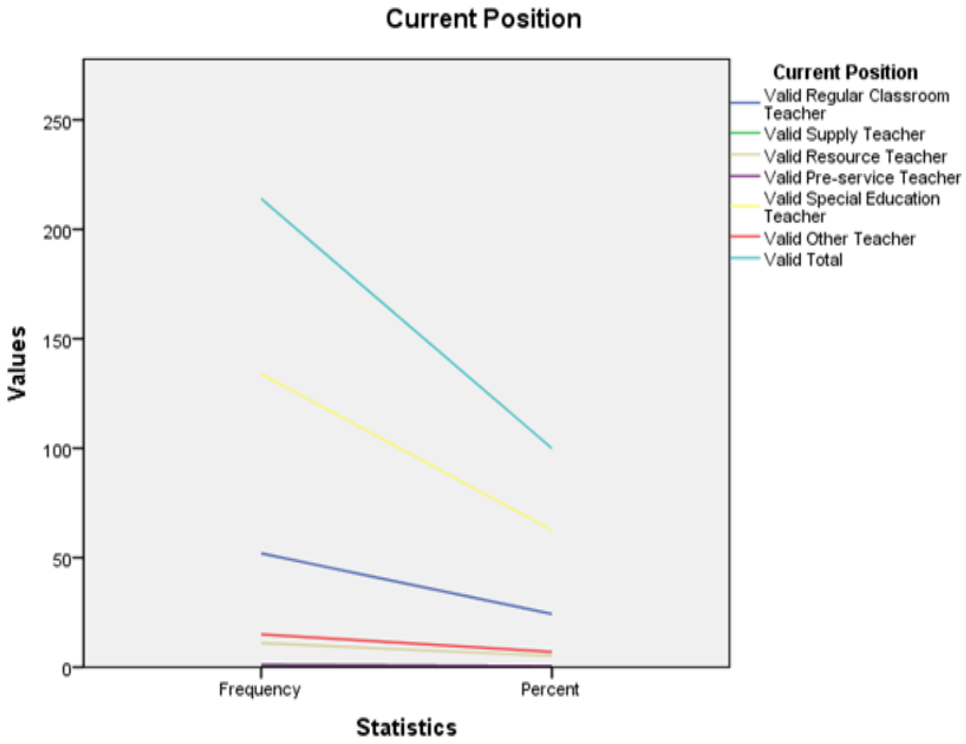
Respondents were asked to discuss their ages, ranging from 25 to over 50. The results show that 26 (12.1%) were aged 25-30, 61 (28.5%) were aged 31-35, 63 (29.4%) were aged 36-40, 36 (16.8%) were aged 41-50, 20 (9.3%) were aged 46-50, and 8 (3.7%) were over 50. The graph indicates that approximately 63% of faculty members are aged 36-40, suggesting that most respondents were experienced teachers.



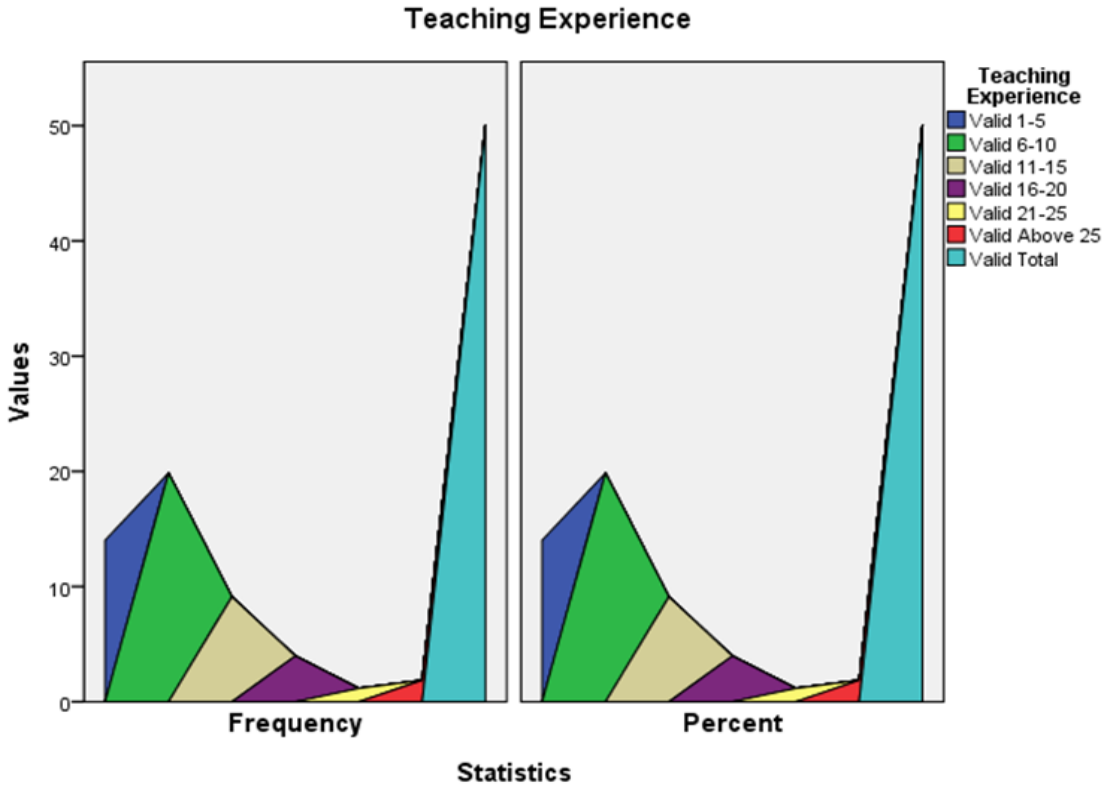
Respondents were asked to state their ages, ranging from 25 to over 50. The results indicate that 26 respondents (12.1%) were aged 25-30, 61 respondents (28.5%) were aged 31-35, 63 respondents (29.4%) were aged 36-40, 36 respondents (16.8%) were aged 41-45, 20 respondents (9.3%) were aged 46-50, and 8 respondents (3.7%) were over 50 years old. Graph shows that approximately 63% of respondents were aged 36-40, indicating they were mostly experienced teachers.



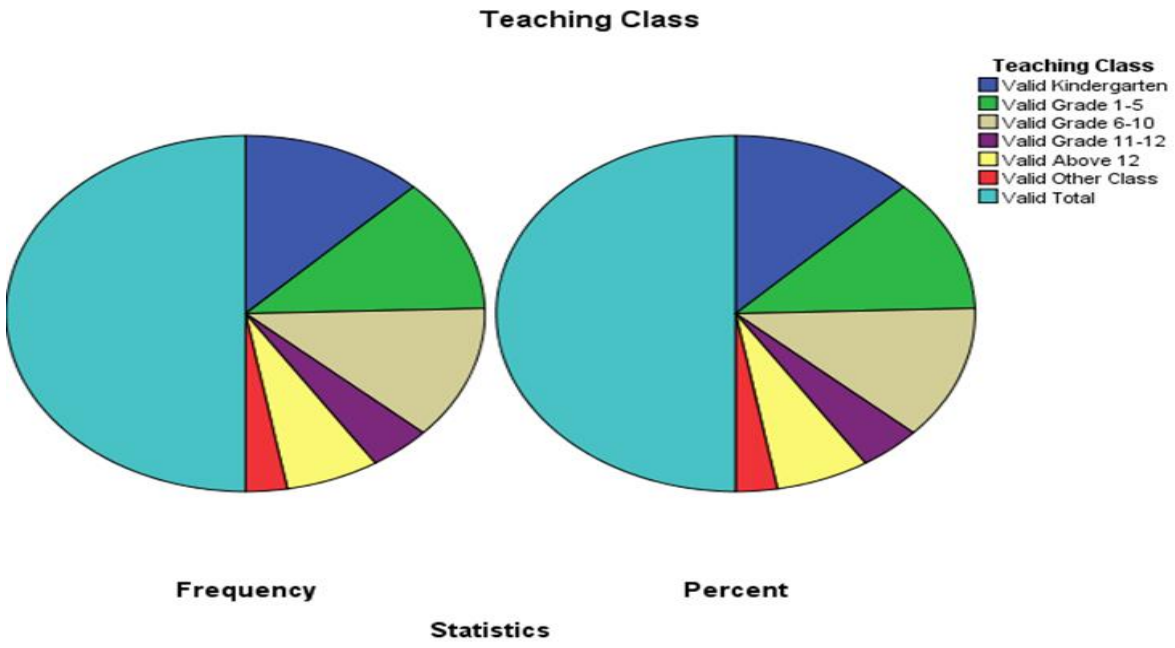
Respondents were asked to state their current position at public sector special education institutes. Among the 214 participants, 134 (62.6%) were special education teachers, 52 (24.3%) were regular classroom teachers, 11 (5.1%) were resource teachers, 1 (0.5%) was a supply teacher, 1 (0.5%) was a pre-service teacher, and 15 (7.0%) were categorized as other teachers.



Respondents were asked about their special education teaching experience. Results showed that 85 (39.7%) had 6-10 years of experience, 60 (28.0%) had 1-5 years, 39 (18.2%) had 11-15 years, 17 (7.9%) had 16-20 years, 5 (2.3%) had 20-25 years, and 8 (3.7%) had more than 25 years of experience.



Respondents were asked about their teaching grade level. Results indicate that 53 (24.8%) taught Kindergarten, 52 (24.3%) taught Classes 1-5 and 6-10, 27 (12.6%) taught above Class 12, 18 (8.4%) taught Classes 11-12, and 12 (5.6%) taught other classes such as resource classes.



Analysis of Respondents' Information-Seeking Behavior

Respondents provided insights into their information needs, purposes for seeking information, preferred print and electronic sources, information preferences and challenges encountered. Their perceptions on various statements were analyzed accordingly.

Respondents' Understanding about their Information Needs

Table 1.1: Respondents' Understanding about their Information Needs (N= 214)

Information Needs	Mean	Std. Deviation
Research Work (Writing Articles)	3.4065	1.28485
Visiting Research Organizations	3.2477	1.27797
Seminar/Workshop/Conference	3.1215	1.17653
Searching Print Sources / Internet	2.6682	1.20142
Meetings and Administrative Duties	2.6495	1.30134
To Prepare a meeting for Parents	2.3972	1.17333
Discussion with Colleagues	1.8832	.87232
Academic Work	1.7056	.85704
Valid N (list wise)		

Note: 1=Very Frequently, 2= Frequently, 3= Occasionally, 4= Rarely, 5= Very Rarely

Respondents were asked to express their understandings about their information needs. Descriptive statistics exhibited the understandings of information needs of respondents in the above table.

Table 1.2: Frequency & Percentages of Different Information Needs (N=214)

Types of Information	Very Frequently		Frequently		Occasionally		Rarely		Very Rarely	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Academic Work	104	48.6	82	38.3	17	7.9	9	4.2	2	0.9
Research Work (e.g. writing article)	19	8.9	38	17.8	49	22.9	53	24.8	55	25.7
Meetings and Administrative Duties	48	22.4	57	26.6	61	28.5	18	8.4	30	14.0
Seminar / Workshop/ conference	21	9.8	45	21.0	63	29.4	57	26.6	28	13.1
Searching Print Sources /Internet	38	17.8	68	31.8	54	25.2	35	16.4	19	8.9
Visiting research Organizations	25	11.7	35	16.4	60	28.0	50	23.4	44	20.6
Discussion with Colleagues	84	39.3	81	37.9	40	18.7	8	3.7	1	0.5
To prepare a meeting for	57	26.6	63	29.4	62	29.0	16	7.5	16	7.5

Parents

Note: 1= Very Frequently, 2= Frequently, 3= Occasionally, 4= Rarely, 5= Very Rarely

The frequency distribution and percentage in Table 2 show that the most of respondents' need for information for academic work is very frequently 104 (48.6%). A large number of respondents' needs for information for research work are very rarely 55(25.7%). The maximum information needed by respondents about meetings and administrative duties is occasionally 61(28.5%). Most of the respondents require information to attend the seminar/ workshop/ conference occasionally 63(29.4%). The maximum response rate about the information need for searching sources print / internet is frequently 68(31.8%). The highest necessity of information for visiting research organizations is occasionally 60(28.0%). Respondents' uppermost requirement for information to prepare a meeting for parents is frequently 63(29.4%).

Respondents' Opinion about their Purpose of Seeking Information

Respondents were asked about their purpose for seeking information and rated various statements on a five-point Likert scale: Always, Frequently, Sometimes, Seldom and Never. The collected responses were analyzed accordingly.

Table 2.1: Respondents' opinion about their purpose of seeking Information (N= 214)

Purpose of Seeking Information	**Mean**	**Std. Deviation**
Research Work	3.0374	1.39701
Presentations	2.6682	1.18172
Academic Writing	2.6402	1.14099
Guiding Other Teachers	2.5514	1.07672
Administrative Work	2.4953	1.17784
Reading	2.4533	.98589
Job Requirement	2.4439	1.13590
Keep up to date	2.1402	.88226
General Knowledge	2.0000	.85580
Personal Competencies	1.8785	.78973
Self-Motivation	1.8131	.79471
Lecture Preparation	1.5701	.69353
Valid N (list wise)		

Note: 1= Always, 2= Frequently, 3= Sometimes, 4= Seldom, 5= Never.

Table 2.2 Frequency & Percentages about purpose of seeking information (N=214)

Purpose of Seeking Information	Always		Frequently		Sometimes		Seldom		Never	
	1		2		3		4		5	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
For lecture preparation	114	53.3	80	37.4	19	8.9	0	0	1	0.5
For guiding other teachers	37	17.3	70	32.7	71	33.2	24	11.2	12	5.6
For presentations	38	17.8	63	29.4	64	29.9	30	14.0	19	8.9
For research work	31	14.5	47	22.0	61	28.5	44	20.6	31	14.5
To keep up with current developments	58	27.1	79	36.9	67	31.3	9	4.2	1	0.5
To improve personal competencies	79	36.9	84	39.3	49	22.9	2	0.9	0	0
To carry out administrative work	47	22.0	71	33.2	56	26.2	23	10.7	17	7.9
Job requirement	52	24.3	63	29.4	62	29.0	26	12.1	11	5.1
General Knowledge	64	29.9	99	46.3	39	18.2	11	5.1	1	0.5
Reading purpose only	37	17.3	76	35.5	75	35.0	19	8.9	7	3.3
For academic writing	42	19.6	51	23.8	77	36.0	30	14.0	14	6.5
Self-motivation	88	41.1	81	37.9	42	19.6	3	1.4	0	0
Other purpose	For Designing activities, For children with behavior Disorder.									

Note: 1= Always, 2= Frequently, 3= Sometimes, 4= Seldom, 5= Never.

Above table presents the frequency distribution and percentage of information-seeking purposes among special education teachers. A significant proportion always seeks information for lecture preparation (53.3%). Some respondents guide other teachers (33.2%) and seek information for presentations (29.9%) and research (28.5%) occasionally. To stay updated with current developments, 36.9% frequently seek information. Improving personal competencies is a frequent motive for 39.3%

of respondents. Many respondents use information for administrative tasks (32.2%) and job performance (29.4%). Seeking general knowledge is common (29.9%), and 35.5% frequently read for recreational purposes. Academic writing drives frequent searches for 36.0% of respondents. The highest rating (41.1%) indicates that respondents always seek information for self-motivation. Additional purposes include motivating students, designing activities, handling behavioral disorders, and enhancing mind-learning activities.

Respondents' Belief about their Information Preference

Respondents were asked about their information preferences and provided feedback on various statements.

Table 3.1: Respondents' Belief about their Information Preference (N= 214)

Information Preference	Mean	Std. Deviation
Particular Issue Effecting your School	3.0514	1.24175
Professional Organization	2.6449	1.25412
Use of Technology	2.5000	1.20543
Communicating with Parents	2.4252	1.24904
Instructional Strategies	2.4019	1.36942
Teaching Resource	2.3972	1.14087
Professional Development	2.3411	1.10504
Assessment/Evaluation	2.3318	1.14129
Curriculum	2.1495	1.01910
Lesson Planning	2.0467	.95812
Student Learning	2.0000	.93948
Student Exceptionalities	1.9907	.97379
Student Motivation	1.9346	.97163
Classroom Management	1.9159	.94070
Particular Subject	1.7103	.94952
Valid N (list wise)		

Note: 5= Extremely Preferred, 4= Fairly Preferred, 3= Somewhat Preferred, 2= A Little Preferred 1= Not at All Preferred

Table 3.2: Frequency & Percentages of Preferences of Information (N=214)

Preference of Information	To a Great Extent		To a Fairly Great Extent		To a Moderate Extent		To a Small Extent		Not at All	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
A particular subject that you are teaching	110	51.4	74	34.6	20	9.3	2	0.9	8	3.7
A particular issue affecting your school (e.g., bullying, suicide, poverty, etc.)	29	13.6	43	20.1	59	27.6	54	25.2	29	13.6
The curriculum	65	30.4	79	36.9	48	22.4	17	7.9	5	2.3
Lesson or unit planning	65	30.4	96	44.9	37	17.3	10	4.7	6	2.8
Teaching resources	52	24.3	76	35.5	45	21.0	31	14.5	10	4.7
Assessment or evaluation	60	28.0	68	31.8	51	23.8	25	11.7	10	4.7
Instructional strategies	67	31.3	61	28.5	38	16.4	12	5.6	1	0.5
Student learning	76	35.5	77	36.0	49	22.9	9	4.2	3	1.4
Student motivation	88	41.1	69	32.2	43	20.1	11	5.1	3	1.4
Student exceptionalities	80	37.4	76	35.5	40	18.7	16	7.5	2	0.9
Classroom management	84	39.3	80	37.4	38	17.8	8	3.7	4	1.9
Communicating with parents	65	30.4	52	24.3	54	25.2	27	12.6	16	7.5
Professional development	54	25.2	76	35.5	50	23.4	25	11.7	9	4.2
One of your professional organizations (e.g., teacher federation)	49	22.9	51	23.8	62	29.0	31	14.5	21	9.8
Technology use in the classroom (e.g., computers, software programs)	52	24.3	62	29.0	58	27.1	25	11.7	17	7.9

Note: 5=to a great extent, 4= to a fairly great extent, 3= to a moderate extent, 2= to a small extent, 1= not at all

Respondents' Point of View about Information Sources in Print Form

Respondents were asked to give their response about the sources of information in print form that they consult. According to their perceptions, they were responded on different statements.

Table 4.1: Respondents' viewpoint about Information Sources in Print Form (N = 214)

Print Sources of Information	Mean	Std. Deviation
Colleague	3.9813	.93930
Consultant	3.9533	.95321
Mentor	3.8551	.97506
Face to face Discussion	3.7056	1.17576
Principal	3.5140	1.20144
Refresher Course	3.4907	1.15365
In-service Training	3.4579	1.05955
A Book	3.3411	1.19486
Conference	3.2570	1.27979
Research Journal	3.0794	1.29942
Daily Newspaper	2.9813	1.25209
Newsletter	2.8178	1.24073
A Magazine	2.7944	1.25026
Valid N (list wise)		

Note: 5= Extremely Preferred, 4= Fairly Preferred, 3= Somewhat Preferred, 2= A Little Preferred 1= Not at All Preferred

Table 4.2: Frequency & Percentages of Information Sources in Print Form (N=214)

Information Sources in Print Form	Extremely Preferred 5		Fairly Preferred 4		Somewhat Preferred 3		A Little Preferred 2		Not at All Preferred 1	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
A colleague (i.e., another teacher)	74	34.6	78	36.4	48	22.4	12	5.6	2	0.9
A mentor	63	29.4	77	36.0	59	27.6	10	4.7	5	2.3
Principal, vice-principal	52	24.3	66	30.8	51	23.8	30	14.0	15	7.0
Someone with expertise such as a learning resource specialist	74	34.6	72	33.6	54	25.2	12	5.6	2	0.9
Work-shop, or in-service training	39	18.2	67	31.3	68	31.8	33	15.4	7	3.3
Professional conference	45	21.0	51	23.8	55	25.7	40	18.7	23	10.7
An additional qualification or Refreshers Course	45	21.0	70	32.7	59	27.6	25	11.7	15	7.0
A professional book	43	20.1	62	29.0	44	20.6	55	25.7	10	4.7
A journal article	42	19.6	40	18.7	48	22.4	61	28.5	23	10.7
A newsletter	25	11.7	40	18.7	53	24.8	63	29.4	33	15.4
Face-to-face discussion	69	32.2	56	26.2	59	27.6	17	7.9	13	6.1
Daily Newspaper	32	15.0	45	21.0	48	22.4	65	30.4	24	11.2
A magazine	24	11.2	45	21.0	40	18.7	73	34.1	32	15.0
Other Sources	No Response									

Note: 5= Extremely Preferred, 4= Fairly Preferred, 3= Somewhat Preferred, 2= A Little Preferred 1= Not at All Preferred

Teachers of special education have been studied for their preferred information sources. Colleagues were the most preferred source at 78 (36.4%), followed by mentors at 77 (36.0%), and institution administrators also at 77 (36.0%). Experts such as learning resource specialists and consultants were highly preferred by 74 (34.6%). Workshops or in-service training were somewhat preferred by 68 (31.8%), and professional conferences by 55 (25.7%). Additional qualifications or refresher courses were fairly preferred by 70 (32.7%), while professional books were liked by 62 (29.0%). Research journal articles were preferred by 61 (28.5%), and newsletters by 63 (29.4%). Face-to-face discussions were highly preferred by 69 (32.2%), while daily newspapers were slightly preferred by 65 (30.4%). Magazines were slightly preferred by 73 (34.1%) of respondents.

Respondents' Estimation about their Information Sources in Electronic Form

Respondents were surveyed on the electronic information sources they consult. Based on their perceptions, they provided feedback on various statements. The responses were analyzed using a five-

point Likert scale: Extremely Preferred, Fairly Preferred, Somewhat Preferred, A Little Preferred, and Not at All Preferred.

Table 5.1: Respondents' estimation about Information Sources in Electronic Form (N= 214)

Electronic Sources of Information	Mean	Std. Deviation
Video/DVD/CD	4.00	.96
Social Media	3.65	1.23
Online Discussion Group	3.59	1.16
Internet Websites	3.47	1.28
Newsgroups	3.26	1.34
E mail	3.21	1.28
E Thesis	2.85	1.33
E Books	2.81	1.30
E Journal	2.81	1.28
E Pictures	2.75	1.29
E Databases	2.74	1.21
E Conference	2.72	1.21
E Reports	2.70	1.18
E Maps	2.59	1.23
A Blog	2.53	1.22
E Manuscripts	2.52	1.21
Online Library Catalogue	2.51	1.29
Valid N (list wise)		

Note: 5= Extremely Preferred, 4= Fairly Preferred, 3= Somewhat Preferred, 2= A Little Preferred 1= Not at All Preferred

Table 5.2: Frequency & Percentages of Information Sources in Electronic Form (N=214)

Information Sources in Electronic Form	Extremely Preferred 5		Fairly Preferred 4		Somewhat Preferred 3		A Little Preferred 2		Not at All Preferred 1	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
A TV Program, Video, DVD, Or CD	78	36.4	79	36.9	41	19.2	13	6.1	3	1.4
A Chat Room	48	22.4	86	40.2	42	19.6	22	10.3	16	7.5
E-Mail	42	19.6	54	25.2	49	22.9	46	21.5	23	10.7
E-Journals	31	14.5	35	16.4	42	19.6	75	35.0	31	14.5
E-Books	32	15.0	36	16.8	39	18.2	74	34.6	33	15.4
E-Databases	24	11.2	34	15.9	51	23.8	74	34.6	31	14.5
E-Conference Proceeding	23	10.7	33	15.4	55	25.7	69	32.2	34	15.9
E-Reports	17	7.9	42	19.6	50	23.4	70	32.7	35	16.4
E-Maps	17	7.9	37	17.3	53	24.8	57	26.6	50	23.4
E-Pictures	24	11.2	42	19.6	50	23.4	54	25.2	44	20.6
E-Manuscripts	15	7.0	33	15.4	55	25.7	58	27.1	53	24.8
E-Thesis	31	14.5	44	20.6	42	19.6	57	26.6	40	18.7
Internet Or Websites	59	27.6	56	26.2	44	20.6	37	17.3	18	8.4
Newsgroups	48	22.4	56	26.2	44	20.6	37	17.3	29	13.6
Social Media	65	30.4	68	31.8	39	18.2	26	12.1	16	7.5
A Blog	18	8.4	29	13.6	52	24.3	65	30.4	50	23.4
Online Library Catalog	25	11.7	26	12.1	36	16.8	75	35.0	52	24.3
Other Please Specify:	Google Search Engine.									

Note: 5= Extremely Preferred, 4= Fairly Preferred, 3= Somewhat Preferred, 2= A Little Preferred 1= Not at All Preferred

Respondents predicted their use of electronic sources for information based on maximum response rates. They showed a preference for television programs, videos, DVDs, or CDs (36.9%) and fairly preferred chat rooms or online discussion groups. Email was fairly preferred by 25.2% of respondents. E-journals were somewhat preferred by 35.0%, while e-books were preferred by 34.6%. E-databases received a preference rate of 34.6%, and e-conference proceedings and e-reports both had a preference rate of 32.2%. E-pictures were preferred by 25.2%, e-manuscripts by 27.1%, and e-theses by 26.6%. Internet websites were used frequently (27.6%), newsgroups were fairly preferred (26.2%), and 31.8% of respondents favored social media. Internet blogs were somewhat preferred (30.4%), and

online library catalogs were preferred by 35.0%. Open-ended questions allowed users to describe their knowledge and understanding in their own words. One respondent mentioned using Google as an electronic source for seeking information.

Respondents' Belief about Challenges for Seeking Information

Table 6.1: Respondents' Belief about Challenges in Seeking Information (N= 214)

Challenges to Seek Information	Mean	Std. Deviation
Social Barriers	3.8832	1.17101
Language Barriers	3.7523	1.31776
Lack of Searching Skills	3.3925	1.28740
Lack of Latest Info Source	3.3224	1.29418
Lack of sources	3.2944	1.07567
Lack of Material	3.2897	1.17892
Expensive Information Sources	3.1121	1.30960
Lack of Training	3.0654	3.03739
Information Scattered	3.0280	1.06112
Information Overload	2.9953	1.07248
Lack of Familiarity with Info Source	2.9720	1.12553
Lack of Time	2.7336	1.10445
Lack of Technical Support	2.5327	1.12018
Valid N (list wise)		

Note: 1= Always, 2= Frequently, 3= Sometimes, 4= Seldom, 5= Never.

Respondents reported challenges in seeking information, rated on a five-point Likert scale: Always, Frequently, Sometimes, Seldom and Never. Analysis reveals the following averages (SD): social barriers (3.8832, 1.7101), language barriers (3.7523, 1.31776), lack of searching skills (3.3925, 1.28740), out-of-date information sources (3.224, 1.29418), expensive information sources (3.112, 1.30960), insufficient teacher training (3.0654, 3.03739), scattered information (3.028, 1.06112), information overload (2.9953, 1.07248), unfamiliarity with sources (2.9720, 1.12553), lack of time (2.7336, 1.10445), and lack of technical support (2.5327, 1.12018).

Table 6.2: Frequency & Percentages of Challenges of Seeking Information (N=214)

Challenges of Seeking Information	Always		Frequently		Sometimes		Seldom		Never	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Required material is not available	19	8.9	25	11.7	89	41.6	37	17.3	44	20.6
Information sources are so far located	8	3.7	43	20.1	75	35.0	54	25.2	34	15.9
Information is scattered in too many sources	14	6.5	52	24.3	85	39.7	40	18.7	23	10.7
Information overload (too much information)	14	6.5	57	26.6	83	38.8	36	16.8	24	11.2
Information sources are very expensive	22	10.3	57	26.6	59	27.6	27	12.6	49	22.9
Latest Information sources are not available	24	11.2	29	13.6	69	32.2	38	17.8	54	25.2
Lack of time for searching	34	15.9	48	22.4	89	41.6	27	12.6	16	7.5
Lack of training to use electronic resources	28	13.1	47	22.0	87	40.7	27	12.6	25	11.7
Lack of technical support	46	21.5	56	26.2	77	36.0	22	10.3	13	6.1
Lack of information about available sources	23	10.7	46	21.5	82	38.3	40	18.7	23	10.7
Language barriers	16	7.5	26	12.1	44	20.6	37	17.3	91	42.5
Lack of searching skills	21	9.8	26	12.1	77	36.0	28	13.1	62	29.0
Social barriers	9	4.2	19	8.9	49	22.9	48	22.4	89	41.6
Other Problems	Lack of Motivation for professional development, Poor Working Environment.									

Note: 1= Always, 2= Frequently, 3= Sometimes, 4= Seldom, 5= Never

Respondents identified several challenges in information searching. The response rate was thoroughly analyzed. Issues included unavailability of required material (41.6%), distant information sources (35.0%), scattered information (39.7%), and occasional information overload (38.3%). 22.9%

stated information sources are never too expensive, while 32.2% noted the latest sources are sometimes unavailable. Time constraints (41.6%), lack of training for electronic sources (40.7%), insufficient technical support (36.0%), and lack of information about available sources (38.3%) were also reported. 42.5% indicated no language barrier, whereas 36.0% cited occasional lack of searching skills. Social barriers were never an issue for 41.6%. Additional problems included poor working environments and lack of motivation for professional development.

Conclusion

The study elucidated several key findings regarding the information needs and behaviors of special education teachers. Primarily, these educators frequently seek information for various purposes, including academic work, research, administrative tasks, seminars, and preparation for meetings with parents. They utilize both print and electronic sources and often engage in discussions with colleagues, as well as conducting visits to other organizations. Notably, the types of information used by respondents vary, with preferences shifting based on expertise; many educators prefer to rely on colleagues for information over other sources. Regarding information-seeking tools, the majority of teachers consult colleagues, mentors, and external experts, with face-to-face discussions being prevalent. Some also utilize libraries to access books, journals, and various print and electronic materials. However, the study identified several challenges these educators face in their information-seeking processes. These include the unavailability and dispersion of required materials, information overload, high costs of sources, and a lack of up-to-date information. Additional barriers such as insufficient time for searches, inadequate training in utilizing electronic resources, and limitations in technical support and searching skills, along with language and social barriers further impede their efforts. In conclusion, these findings highlight the critical information needs of special education teachers and the multifaceted challenges they encounter in effectively accessing and utilizing information. The reliance on informal sources and the preference for conversational methods underscore the importance of peer collaboration in their professional landscape. Furthermore, the challenges identified, such as information overload and a lack of training in electronic resources, suggest the need for targeted support and resources to enhance their information-seeking capabilities. Addressing these issues is essential for improving the professional development of special education teachers and ultimately benefiting the educational outcomes of their students.

Recommendation

Based on the findings of the current study, several recommendations have been proposed to enhance information services for special education teachers. Firstly, adequate training should be provided to educators on utilizing electronic instruments, such as digital whiteboards, Braille and large print materials, as well as online resources and the latest software like Sped Track and iComm. Moreover, teachers should be instructed in contemporary methods of information retrieval across various sources to improve their information-seeking skills. The government should also implement regular district-level information literacy programs specifically designed for special education teachers. Furthermore, establishing a dedicated reference service desk supervised by professional librarians would provide efficient information services tailored to the needs of educators. Conducting seminars and workshops at every special education institute can facilitate teachers in gaining practical experience and enhancing their information-seeking processes. It is also imperative for the administration of all public sector special education institutes to actively support teachers in their administrative tasks, including visits to other organizations and collaboration with experts and consultants. Lastly, implementing special education teacher training programs is essential to improve their personal competencies and professional development. The execution of these recommendations can significantly enhance the information services available to special education teachers, ultimately supporting their professional growth and the educational needs of their students.

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