Knowledge Transfer Tools in the Mauritian Special Educational Needs Ecosystem: The Optimal Use of Online Resources

Simi Sonatun-Seegoolam

Dr. Diroubinee Mauree-Narrainen

Abstract: Improving knowledge transfer within the SEN ecosystem is a key tactic to enhance the Special Educational Need (SEN) learning process in Mauritius. Nonetheless, it has been noted that there is still a lack of study in this field. Therefore, the goal of this study is to examine how Occupational Therapists (OTs) use online Knowledge Transfer (KT) tools to transfer knowledge to the SEN environment. To do this, the initial goal was to find out which of the three respondents—parents, other professionals, and occupational therapists—used online resources most frequently to transfer knowledge. The second goal was to ascertain which of the three respondents' online resources was better at transferring the knowledge, and the third goal was to look into any possible connections between online resources and their effectiveness using three respondents each. A closed-ended questionnaire was utilized to survey 55 OTs on the island to gather information on the effectiveness and usage of the online resources they used with parents, teachers, and other professionals. Microsoft Excel 2019 and IBM SPSS Statistics 26 were then used for additional data analysis. 22 online resources were analyzed and the Kruskal-Wallis test was used to assess how the means differed for the three respondents namely teachers, other professionals and OTs. While e-journals, e-posters, e-conferences, emails, websites, online libraries, online encyclopedias, virtual communities of practice, virtual focus groups, and virtual workshops were significantly more effective ways for OTs to transfer knowledge to other professionals than to both parents and teachers, e-journals, emails, online libraries, webinars, virtual communities of practice, virtual focus groups, and virtual workshops were significantly less used when communicating with other professionals. However, it has been concluded that OTs found it harder to use KT tools with teachers and parents which could be due to several reasons. Therefore, more research is advised to investigate other KT tools to support them.

INTRODUCTION

According to the Organization for Economic Co-operation and Development (OECD, 2012, 2018), a strong foundation for the prosperity and well-being of both people and society at large is achieved by providing high-quality education to all citizens. Similarly, the UNESCO and UNICEF have been strongly advocating for high-quality education as a fundamental human right (UNICEF, 2014; UNESCO, 2018). Nevertheless, despite the efforts made by numerous countries globally towards the attainment of high-quality education and fulfilment of the Sustainable Development Goal 4, it has been observed that learners with disabilities remain a small segment of the population which is still being excluded from inclusive and equitable quality education (McLinden et al., 2022). According to some studies, SEN students are still struggling to realize their full potential in terms of their intellectual, social, and emotional development (Gedfie et al., 2021). The rising population of Special Educational Need (SEN) students are becoming more and more problematic as different solutions are needed for different kinds of special needs, including hearing, vision, motor, and other developmental impairments compared to children in general with a distinct teaching strategy. Despite the implementation of the inclusive education which guarantees that every child, irrespective of their special needs, abilities, or backgrounds, needs to have equal access to and full participation in all facets of school life (Sitopu et al., 2024; Guna et al., 2024; Fawait et al., 2024), the burden of meeting the requirements of all students including that of the SEN has fallen on the shoulders of the school teacher.

Hence, to create a more welcoming and supportive learning environment, it has become a priority to promote collaboration between teachers, students, and communities to facilitate the elimination of social, curricular, and physical barriers that may impede student participation (Iksal et al., 2024; Syakhrani & Aslan, 2024; Judijanto et al., 2024). Only the teacher's efforts are insufficient to address the diverse requirements of SEN students, particularly when it comes to inclusive pedagogy. Therefore, to overcome these obstacles and attain a well-rounded development of SEN students, a comprehensive support environment must be established consisting of various stakeholders seamlessly coordinating together aiming to enable SEN students to live fulfilling lives, achieve their potential, and promote social inclusion (Thu et al., 2025). Correspondingly, this research will be focusing on the collaboration medium of the main SEN stakeholders that is the teacher, the Occupational Therapist (OT), the parent and other professionals working with the SEN student.

Occupational Therapists are known to be expert in assessing and intervening with limitations faced by SEN students in school environments. Sequentially, the OT needs to transfer his or her knowledge gained from the student or during the intervention session with the parent, teacher and other professionals working together to be on the same wavelength and vice versa. For this purpose, OTs use knowledge transfer (KT) tools to convey their experiential knowledge to other SEN stakeholders. Regretfully, little study has been conducted to date on the

efficacy and usage of these KT tools by OTs to parents, teachers and other professionals. According to UNESCO's (2017) recommendations, information technology is becoming more and more integrated as a learning tool and is continuously changing the way that education is taught, and steps must be taken to ensure that it is used effectively in education training.

Thus, the main purpose of this research is to have an insight of optimum usage and effectiveness of online resources used by OTs to transfer knowledge to Special Educational Need ecosystem in Mauritius. In order to do this, the first objective was to investigate with which of the three respondents, parents, and other professionals, OTs used online resources the most to transfer knowledge and which of these online resources were mostly used. The second objective was to determine with which of the three respondents' online resources were more effective in transferring knowledge and which of these online resources were the most effective and the third objective was to investigate any potential relationships between online resources and their efficacy with each category of the respondents.

LITERATURE REVIEW

Special Educational Need

Special Educational Needs (SEN) typically refers to people who have learning impairments as well as physical, developmental, communicative, behavioral, and emotional issues (Bryant et al., 2019). While some of these people are known as having "visible" disabilities because of their obvious differences (like physical challenges), others with less obvious differences (like autism spectrum condition) are known as having "invisible" or "hidden" disabilities (Radulski, 2022). Prior studies have linked SEN to poor academic, social, and emotional functioning (Avramidis et al., 2020; Heiman & Olenik-Shemesh, 2020; Cara, 2013), lower peer acceptance, fewer friendships, and fewer interactions than their peers (Schwab et al., 2021). Moreover, according to Goh et al., (2021) and Martin et al., (2017), SEN children struggle to participate in academic and social activities, and they lack social-emotional and behavioral competencies.

Inclusive Education

Inclusive education is a method in the educational system that seeks to guarantee that all children, regardless of their abilities, backgrounds, or special needs, have equal access to and full participation in all aspects of school life (Sitopu et al., 2024; Guna et al., 2024 and Fawait et al., 2024). SEN students are unique individuals who require a different teaching strategy than other children. Therefore, through inclusive education, they benefit from academic knowledge as well as social, emotional, and cognitive development which is essential for their survival in the future (Iksal et al., 2024; Syakhrani & Aslan, 2024). Furthermore, inclusive education guarantees that each student's abilities and

potential are recognized and maximized, improving their prospects for success in the future and making a constructive contribution to society (Mulima et al., 2024).

In terms of policy, culture, and practice, inclusive education is nevertheless context-specific despite widespread adherence to these fundamental principles (Ainscow, 2020; Lindner et al., 2023; Moberg et al., 2020; Sharma et al., 2006; Takala et al., 2012). More than simply administrative changes are needed to create inclusive classroom environments; teachers also need to create instructional strategies that value and respect each student's unique characteristics (Fernandez, 2021). According to Marimuthu and Cheong (2015), inclusive education relies on professionals' dedication and positive views. They must respect and value students and recognize that, given the right support, SEN students can surpass expectations. For a better understanding of the SEN student's growth, all the professionals who deal with them - referred to in this study as the SEN ecosystem - should be in continual communication and sharing information about the student's progress.

Special Educational Needs Ecosystem

SEN children frequently encounter obstacles that keep them from reaching their full potential. Physical restrictions, a lack of access to high-quality education, prejudice and social stigma, and a lack of environmental assistance are a few examples of these difficulties. In this sense, it is critical to understand that disability is a complicated social issue as well as a medical one (Sari et al., 2021). Thus, to establish a welcoming and encouraging atmosphere for SEN students, a holistic approach including several stakeholders is required. A strong ecosystem of support is a key element in establishing a supportive environment (Aulia et al., 2025).

Numerous fields have adopted the ecosystem notion, including the social sciences (Oksanen & Hautamäki, 2015; Schwind et al., 2016), media and healthcare (Kahn et al., 2012; Walpole et al., 2016), and educational discourse (Niemi, 2016, 2021a, b; Niemi et al., 2014). In technological contexts, ecosystems have also been used to highlight the value of collaboration across many parties (Moore, 2006). Others highlight the ecosystem's function as an alternative to the conventional educational system (Knowledge Works, 2012), while some defined the ecosystem as a balance amongst various stakeholders in the educational process, such as teachers and students (Pearce & McCoy, 2007; Hannon, 2017). In this study, the SEN ecosystem is defined as stakeholders like parents/ families, teachers and professionals working together to improve the learning process of SEN students.

The family, educational institutions, and the larger community all play an active role in the educational ecosystem as they provide emotional, practical, and advocacy support for these children (Dayanti & Pribadi, 2022). In order to help SEN children reach their full potential, the family is the primary pillar (Rachman et al., 2023). According to a study done by Smith et al., (2022), children's academic performance and adaptive abilities improve more when

families participate in therapeutic therapies and individualized education plans (IEPs). This cooperative approach improves the consistency of support given both at home and in institutional settings and fortifies the parent-professional collaboration.

Furthermore, in order to help SEN children reach their full academic and social potential, educational institutions must work in tandem with families to provide high-quality inclusive education. Schools create inclusive learning environments by adapting their curricula and instructional strategies to meet each student's unique requirements. It has been observed that teachers having special education credentials and experience working with SEN srudents can make a significant difference (Yoneda, 2020). Competent teachers are better able to provide adaptive and inclusive teaching, which is essential to accommodate the various needs of students (Griggs, 2022).

Over and above, professional support services, such as therapy, early intervention, rehabilitation, psychiatric counselling, and financial aid for children are essential (Thu et al., 2025). It is well established that having professionals from different disciplines working together in provision services for SEN students is the most effective approach to promote holistic development across life domains (Briggs, 1997; Rapport et al., 2004). Professionals involved in cross-sector service provision for SEN can be speech and language therapists, occupational therapists, physiotherapists, teachers, social workers, general practitioners, psychologists, and so on (Castro-Kemp and Samuels, 2022). Lastly, to establish a holistic ecosystem, cooperation between the public and private sectors is crucial for the delivery of services and support (Khoiriyah & Siswanto, 2024). SEN children can thrive in a friendly and nurturing environment created by an inclusive and compassionate society. Raising knowledge and comprehension of disabilities, eradicating discrimination and stigma, and offering accessible facilities and services are ways to do this (Rachman et al., 2023).

Knowledge Transfer

Knowledge Transfer (KT) is defined by Singley and Anderson (1989) as how knowledge is acquired in one situation and is applied (or is failed to apply) to another. It can be described as the process where knowledge flows from one individual to another through a/ some channels (Abou Hashish, 2017). According to Nguyen and Burgess (2014), knowledge moves between a root and a recipient and where knowledge is given and practiced and occurs when actors both source information from and share it with each other (Kaše et al., 2009), which is subsequently successful when it improves the recipients' performance (Argote & Fahrenkopf, 2016). This study emphasized on the knowledge transfer process from the OT to the other SEN stakeholders, that is teacher, parent and other professionals. In order to improve SEN learning, the SEN ecosystem should be on the same wavelength that is, all of them should be aware of the SEN student profile, the difficulties being encountered by the student, the objectives being worked on and to be achieved with the SEN student as well as the different intervention strategies being implemented with the SEN student by all the

professionals. Hence, a good knowledge transfer needs to take place amongst the different stakeholders to establish this holistic approach. This study investigated on the different online KT resources used by the OT to transfer knowledge to the other SEN stakeholders that is parent, teacher and other professionals who work together for the SEN student.

Online Knowledge Transfer Tools

As per prior research, a practical and efficient way to disseminate important research to stakeholders, including the public, healthcare practitioners, and policymakers, is through Information and Communication Technologies (Ho et al., 2003). Knowledge transfer tools facilitate the successful transfer of knowledge between individuals since it has been defined as a process in which people exchange skills, experience, competencies, knowledge, and capabilities (Argote, 2011; Wambui et al., 2013). Therefore, 22 online resources were examined in this study as KT tools that OTs have been utilizing to transfer their experiential knowledge to other SEN stakeholders. The table below details each of the KT tool.

Table 1: Online Knowledge Transfer tools used by OTs

SN	Online Resources	Previous Research
1	E-Leaflets	E-leaflets offer the benefit of providing information in an eye-catching, concise, and visual way, and they can be accessible at any time and disseminated extensively. The effectiveness of leaflets can be attributed to their accessibility and usefulness, since they can be read at any time and carried anywhere, as well as their capacity to provide the necessary information in a concise manner (Hamalding et al., 2025). Individuals, families, groups, and even communities can all benefit from using e-leaflets (Milah, 2022).
2	E-Newsletter	An electronic periodic publication used to provide information with interested readers, such as news updates, survey results, new research findings, event reminders, and other resources, is called an e-newsletter. Email is used to spread it. A good e-newsletter is brief and provides readers with useful information on a topic or issue, such as contact details and knowledge. No matter where they are, anyone with an email account can simply receive it (UNICEF, 2024).
3	E-Book	An e-book is an electronic version of a printed book (Siegenthaler et al., 2010) or or an electronic text that is available in a digitally encoded format readable via an electronic device (Wexelbaum et al., 2011). According to Radović et al., (2020), e-books are made to accommodate the teaching and learning requirements of students, enabling a high level of involvement and feedback during the learning process. According to some researchers (Al-Astal & Zaydah, 2015; Collins et al., 1997; Glasgow, 1997; Short, 2010), e-books are useful because they help students understand concepts, facilitate successful learning experiences, and help them develop specific skills. This suggests that e-books increase students' motivation to learn.
4	E-journals	E-journals are publications that are accessible online or through electronic media and are designed to be easily readable by anyone in need of scientific data (Sawitry, 2011). Manjunatha and Kumar (2019) looked at how students and instructors used e-journals. Using a survey approach to gather data, the study

		discovered that the majority of students and teachers use e-journals at libraries.
5	E-poster	According to Duchin and Sherwood (1990), an electronic poster is a conventional poster that uses a well-planned arrangement to communicate information. It should have a logical flow of information, clear images, and little text for easy comprehension and real-world application. E-Posters are multimedia for digital publications that aim to offer a variety of information (Erivan, 2019). Additionally, they do include visual information in the form of eye-catching colors and graphics. Achieving student learning outcomes was significantly aided by the use of appropriate learning material like e-books (Niruri et al., 2023).
6	E- Conference proceedings	The written record of a conference, congress, symposium, or other gathering organized by a society or association is known as a conference proceeding. Abstracts or reports of the papers that were delivered by the attendees are typically included in the E-Conferecne proceedings (Penn State library, 2024). However, E-conference proceedings are digital ones.
7	E-reports	Periodically or as needed, e-reports can be produced as digital documents with tabular, graphic, or descriptive formats (Sachdeva & Bhasin, 2020). The e-report program's goal is to identify the stakeholders who are in charge of and involved in educational services for the success of education, which encompasses the full planning, execution, and evaluation process in accordance with roles and responsibilities (Permana & Daniswari, 2021). Stakeholders can enter, assess, and retain data more securely and prevent loss with e-reports (Febriyanto et al., 2020).
8	E-Maps	Computer-generated mind maps, or "e-maps," are capable of organizing and presenting complex information in a way that is simple to comprehend. E-Mapping is a potent organizational and e-learning tool that may graphically represent key ideas, concepts, images, and subtopics as well as the connections between them. An E-Map is a type of graphic organizer that can be used online and rapidly produce succinct representations of concepts, intricate relationships, knowledge, and information. A visual method of organizing information and creating knowledge is through mind and concept maps. They offer a potent visual representation that can illustrate intricate connections and data and connect newly acquired knowledge to existing understanding (Ruffini, 2008).
9	E-Picture	According to Merriam-Webster (2025), an emoji also known as e-picture is any small image, symbol, or icon that is used in text fields in electronic communication (such as text messages, emails, and social media) to convey information concisely, express the writer's emotional attitude, or convey a message in a playful way without using words.
10	E-magazine	An E-Magazine is a type of instructional resource that is created digitally utilizing computers, tablets, iPads, and smartphones rather from paper sheets (Jaya, 2019; Nuraida et al., 2022). E-magazines are a vital part of contemporary education because of their many advantages, which include accessibility, interaction, and current information (Mcgeown et al., 2016; Zulfarina et al., 2021). Accessibility and convenience are two of the main benefits of using e-magazines as digital teaching resources; thus, the potential of this e-magazine to improve learning outcomes, engagement, and accessibility in the digital age makes its development urgent (Anggraini et al., 2022; Saraswati et al., 2019).

11	Emails	Electronic mail (EM) is an electronic communications system that sends information from one person/site to another (one-to-one communication) or from one person to multiple persons at the same time (Cross & Raizman, 1986). When utilized as a pedagogical tool, it enables the instructor to facilitate information transmission and support interactions that would not otherwise occur during a class session (Kim et al., 2016). Furthermore, emails delivered by course instructors serve to push students to achieve good learning outcomes (Lewandowski, 2015). Today, health professionals utilize email to collaborate and get consultations from other experts since it allows for the easy sharing of information, improves effective communication, and may improve patient care (Malka et al., 2015).
12	Websites	One technology that may be defined as a collection of related network web resources, like web pages or multimedia material, that are published on at least one web server and usually identified by a shared domain name is a website (Kaur, 2018). According to Yuniva and Anshori (2017), they can be thought of as a group of sites that display data, either static or dynamic, that creates an interconnected building structure with hyperlinks connecting each component.
13	Online library	E-library is an essential source for gathering valuable information on preferred topics (Maqsood et al., 2021; Sun and Yuan, 2012). Electronic-library is gaining attention in the current era, allowing all users to access well-managed knowledge repositories (Cidral et al., 2018: Meskhi et al., 2019; Atkinson, 2021; Trappey et al., 2021; Anjaria, 2020; Islam et al., 2011). Besides, the users can access an e-library with some resources such as e-books, e-journals, and educational websites. These services are accessible for the users (Abbas et al., 2021; Li et al, 2019; Zakaria, 2021; Ocran, 2020) to embrace and acquire the knowledge related to their concerned topics (Pinho et al., 2020; Azadi et al., 2021 and Moradi et al, 2021).
14	Online encyclopedia	A book with an alphabetized list of knowledge terms and brief information supplied in electronic format is called an electronic encyclopedia (Rahma, 2018). Digital encyclopedias provide a number of benefits, including organized content presentation, accessibility, interactivity, and multimedia and visual components that aid with concept clarification (Sarinah et al., 2024).
15	Online discussion forums	Online discussion forums are a ubiquitous communication tool within an online learning environment (Nandi et al., 2009). They claimed that online discussion boards have proven to be effective communication tools for fostering engagement, exchanging ideas, and disseminating knowledge between teachers and students. The online discussion forums are asynchronous, all participants in the learning process can speak with one another whenever and wherever they choose, negating the need to schedule in-person interactions. By posting in an online forum, anyone can participate in the conversation at any time and from any location (Nandi et al., 2011).
16	Blogs	Blogs are multimodal, web-based, socially reflective texts that can improve discussion and participation in classes. According to empirical research, blogs can foster an environment for reflection (Hourigan & Murray, 2010; Yang, 2009), encourage peers to offer emotional and informational support to one another through the networked commenting feature across time and space (Deng & Yuen, 2011; Hall & Davison, 2007), and encourage the co-construction of knowledge (Du & Wagner, 2007; Oravec, 2003). According to Sulasmianti's (2018) research, blogs can help with a number of issues that arise during the learning process.
17	Wikis	With a web-based interface, a user community can update a collection of webpages that make up a conventional wiki (Baumeister et al., 2007). A specific topic is covered on each page (Lange, 2007; Sauer et al., 2005; Wagner, 2004). Research on wikis' pedagogical implications supports the claims made in (Butcher and Taylor, 2008; Gray et al., 2010; Hewege and Perera, 2013) that

		when used properly, wikis enhance the teaching and learning process. According to Dhindsa et al., (2011), the wiki permits the application of educational and learning approaches like cooperative and collaborative learning. Additionally, Gray et al., (2010) stated that a collaborative technology is a tool that encourages knowledge sharing and, in reality, enables participants to turn a shared experience that lacks obvious intervention opportunities into one that can be controlled by the communities to which the participants themselves belong.
18	Webinars	According to Gegenfurtner and Ebner (2019), webinars are web-based seminars in which lecturers and students are synchronously interacting in real time using webcams and voice over IP while being connected live across remote geographic locations using shared virtual platforms. It is a unique instance of online conferencing that supports teaching and learning in education. They are one type of internet communication tool that helps professionals share their experiences and convey scientific information (Li et al., 2019).
19	Virtual Communities of Practice	According to Alavi (2013), the Virtual Communities of Practice (VCoP) is a social network of people who communicate via social media, possibly overcoming political, social, and psychological barriers to pursue shared interests or objectives. A study by Wegner et al., (2002) defined a community of practice is a group of individuals who engage, learn from one another, form relationships, and ultimately grow to feel a feeling of commitment and belonging. Individuals in a VCoP have been seen to learn how to accomplish their knowledge-seeking goals as a group (Frank et al., 2017). Recent research has tended to present the VCoP as structures—tools that organizations and policymakers can purposefully develop for the aim of disseminating information in a targeted manner (de Carvalho-Filho et al., 2020; Zamboni et al., 2020).
20	Virtual/ digital Storytelling	Digital storytelling, according to McLellan (2006), is the art and craft of experimenting with various media and software programs to use digital media to convey tales in fresh and impactful ways. Rule (2010) described digital storytelling as potent because it combines voice, narrative, music, and visuals to give people, circumstances, experiences, and fresh insights life. Prior research has demonstrated that digital storytelling aided in the development of critical thinking and problem-solving skills (Chen & Chuang, 2020; Yang & Wu, 2012; McLellan & Wyatt, 2006), digital, global, technological, visual, and knowledge literacy (Brown et al., 2005; Çetin, 2021), communication skills (Karakoyun & Kuzu, 2017; Mnisi, 2015; Al-Amri, 2020; Öztürk & Tunç Ayvaz, 2017), creativity and critical thinking (Anggeraini, 2020; Tabieh et al., 2021), research skills (Çiçek, 2018), and integration skills (Kabaran et al., 2019).
21	Virtual focus group	According to Traynor (2015), a focus group is a collection of people chosen by researchers to talk about and offer feedback on a research topic based on individual perspectives and experiences. Accordingly, an online focus group is a computer-mediated "communication event" (Albrecht et al., 1993) that uses a videoconferencing application to conduct the discussion in real time and aims to replicate the general format (Williams et al., 2021 and Kite and Phongsavan, 2017). The expectation that participants and the researcher possess a certain degree of computer literacy is one of the primary features of an online focus group (Lobe, 2008).
22	Virtual Workshop	According to Engineering Education Australia (2025), a virtual workshop is an organized, live, online classroom-style training and professional development delivery technique. Promoting education, collaboration, problem-solving, or the generation of fresh concepts is the aim. Whether the workshop is conducted virtually or in person, the location is essential to fostering an atmosphere that encourages innovation, teamwork, and fruitful participation (Glowbl, 2024).

METHODOLOGY

3.1. Methods

The researchers employed a quantitative approach to investigate the effectiveness and utilization of online resources used by Occupational Therapists as knowledge transfer tools to tran knowledge to the SEN ecosystem in Mauritius, with the objective of enhancing the SEN learning process. Hence, a survey was conducted with the OTs to gather information.   The research questions investigated into this study are as follows; (1) Which of the three respondents, parents, and other professionals, OTs used online resources the most to transfer knowledge and which of these online resources were mostly used? (2) Which of the three respondents' online resources were more effective in transferring knowledge and which of these online resources were the most effective? (3) What is the relationship between online resources and their efficacy with parents? (4) What is the relationship between online resources and their efficacy with teachers? (5) What is the relationship between online resources and their efficacy with other professionals?

The hypothesis hereby tested was:

Hypothesis

H_0: *Online Resources* have no impact on *Effectiveness of Knowledge Transfer Tools*

H_1: *Online Resources* have a significant positive impact on *Effectiveness of Knowledge Transfer Tools*

3.2. Participants and Recruitment

For this study, sixty-three participants were chosen by a purposive sampling technique. The following particular criteria were used to choose the participants:

i. Occupational therapists must be operating in Mauritius, ii. they must be registered with the Allied Health Professional Council of Mauritius, and iii. they must have worked with SEN students for at least a year. The chosen participants were initially contacted by phone, and the purpose and process of the study were thoroughly described. Eight participants subsequently left the research. Ultimately, there were 55 individuals in the study's final sample.

3.3. Data Collection Procedure

Individual data collection was carried out with the 55 OTs.   Following their verbal assent, they received an email with a questionnaire and a consent form. The participants were then contacted via WhatsApp based on their availability, and the questionnaire was read and explained to them. The researchers then recorded the responses.

3.4. Data Collection Tool

The instrument used to collect data was a close ended questionnaire having the purpose of capturing views of OTs regarding the usage and effectiveness of online resources as knowledge transfer tools used with parents, teachers and other professionals.

The questionnaire was segmented into two sections, Section A and Section B. The Section A recorded the basic demographic information about the participants and the Section B was used to gather responses on the usage and effectiveness of the online resources as knowledge transfer tools to parents, teachers and other professionals segmented into three columns designed for each population (parents, teachers and other professionals). The replies were assessed using a five-point Likert scale with five elements classified as '1 = Never 2 = Rarely 3 = Sometimes 4 = Often 5 = Always' for the usage and '1 = Not effective 2 = Slightly effective 3 = Moderately effective 4 = Effective 5 = Very effective' for the effectiveness of online resources section.

As stated above, the original sample consisted of 63 OTs. 8 denied participation and hence the targeted sample resulted in 55 OTs. The questionnaires were filled by 55 OTs working in Mauritius.

3.5. Reliability and Validity

Ten occupational therapists participated in a pilot testing process to assess the questionnaire's face and content validity. In addition, the responses to the sets of statements measuring *Online Resources* under both *Usage of Knowledge Transfer Tools* and *Effectiveness of Knowledge Transfer Tools* were tested for reliability (**Table 2**), as well as construct validity and sample adequacy (**Table 3**) in SPSS.

According to past research, reliability coefficients reflect a good level of internal consistency if they are at least 0.6 (Malhotra, 2019). In **Table 2** below, all the coefficients were more than 0.6, confirming that the survey questionnaire was internally consistent.

Table 2: Results of reliability tests (*n* = 55)

		Cronbach Alpha Coefficient		
	Number of items	**Parents**	**Teachers**	**Other Professionals**
Usage of Knowledge Transfer Tools				
Online Resources	22	.953	.948	.953
Effectiveness of Knowledge Transfer Tools				
Online Resources	22	.970	.981	.979

Secondly, using exploratory factor analysis to test construct validity (Tavakol and Wetzel, 2020; Dabbagh *et al*., 2023) by way of principal components analysis and Varimax rotation, Bartlett's test of sphericity turned out to be significant for each construct, i.e., 0.05 or less (**Table 3** below). At the same time, construct validity showed that the constructs were unidimensional (Ziegler and Hagemann, 2015).

Table 3: Results of construct validity and sample adequacy tests (*n* = 55)

	Parents			Teachers			Other Professionals		
	Bartlett test (Validity)		KMO-stat (Adequacy)	Bartlett test (Validity)		KMO-stat (Adequacy)	Bartlett test (Validity)		KMO-stat (Adequacy)
	χ2-stat	p-value		χ2-stat	p-value		χ2-stat	p-value	
Usage of Knowledge Transfer Tools									
Online Resources	1388.874	< .01	.737	1318.910	< .01	.662	1154.889	< .01	.780
Effectiveness of Knowledge Transfer Tools									
Online Resources	1526.153	< .01	.690	1224.076	< .01	.725	1802.473	< .01	.713

Thirdly, the results of sampling adequacy testing, confirmed that the survey data accommodated exploratory factor analysis, measured by the Kaiser-Meyer-Olkin (KMO) statistic. The results for construct validity and sample adequacy shown in **Table 3** indicated that the *p*-values for Bartlett's test were all significant at the 1% level, thereby showing that the constructs passed construct validity testing (Field, 2016).

3.6. Ethical Considerations

The Ministry of Education, Tertiary Education, Science, and Technology of Mauritius granted ethical approval through its Research and Ethics Committee (REC). Before the study began, participants were given extensive information on the study's aim, objectives, and process. Participation in this study was voluntary and anonymous. All data were obtained anonymously, and participants' confidentiality was maintained.

3.7. Statistical Analysis

Microsoft Excel 2019 and IBM SPSS Statistics 26 were used for all statistical analyses. It was crucial to perform normality checks for every variable before selecting the appropriate tests. According to the SPSS results, at least one of the three variables was not normally distributed for every mean comparison (both for the effectiveness and usage of knowledge transfer instruments). Therefore, the Kruskal-Wallis test, which is its non-parametric test, was employed to evaluate the differences between the means instead of the one-way ANOVA. The means and standard deviations of the scores for each Likert statement, along with the test-statistic and p-value, are displayed in Table 3 for each comparison of means among the three respondent groups. Below each table, the data have been interpreted using the 0.05 and 0.02 significance levels, respectively. SPSS-generated non-parametric post hoc tests assisted in identifying significant variations between means; these will be the only differences that are analyzed.

RESULTS

Table 4: Usage of online resources

	Parents	Teachers	Other professionals	Test-statistic	p-value
E-Leaflet	1.87 ± 1.23	1.91 ± 1.19	2.06 ± 1.01	1.656	.437
E-Newsletter	1.62 ± 1.03	1.74 ± 1.17	1.96 ± 1.17	3.230	.199
E-book	1.73 ± 1.08	1.96 ± 1.20	2.31 ± 1.36	8.871	.012*
E-journal	1.56 ± 1.03	1.67 ± 1.16	2.07 ± 1.28	9.143	.010*
E-Poster	1.98 ± 1.14	1.94 ± 1.20	2.15 ± 1.05	1.432	.489
E-Conference proceeding	1.45 ± 0.80	1.45 ± 0.87	1.79 ± 1.28	4.402	.111
E-Reports	2.82 ± 1.34	2.71 ± 1.29	3.09 ± 1.04	2.832	.243
E-Maps	1.38 ± 0.65	1.42 ± 0.74	1.62 ± 0.92	2.935	.230
E-Picture	2.80 ± 1.31	2.80 ± 1.25	2.89 ± 1.30	0.211	.900
E-Magazine	1.64 ± 0.95	1.62 ± 0.87	1.79 ± 1.20	1.017	.602
Email	2.73 ± 1.01	2.75 ± 1.06	3.45 ± 1.26	16.390	.000**
Websites	2.47 ± 1.09	2.55 ± 1.12	3.00 ± 1.18	6.795	.033*
Online Library	1.85 ± 0.98	2.14 ± 1.13	2.78 ± 1.25	17.370	.000**
Online encyclopaedia	1.69 ± 1.04	2.00 ± 1.22	2.51 ± 1.12	9.543	.008**
Online discussion Forum	1.73 ± 0.95	1.83 ± 1.09	2.43 ± 1.09	8.452	.015*
Blog	1.70 ± 0.97	1.70 ± 0.97	1.80 ± 1.09	1.192	.551
Wikis	1.57 ± 0.74	1.58 ± 0.73	1.90 ± 1.09	4.415	.110
Webinar	1.91 ± 1.08	2.02 ± 1.19	2.70 ± 1.09	13.749	.001**
Virtual community of practice	1.98 ± 1.13	1.82 ± 1.00	2.58 ± 0.98	12.771	.002**
Virtual story telling	1.44 ± 0.74	1.47 ± 0.89	1.60 ± 1.26	1.091	.580
Virtual focus group	1.55 ± 0.86	1.56 ± 0.91	2.09 ± 1.26	8.202	.017*
Virtual workshop	1.60 ± 0.89	1.71 ± 0.99	2.34 ± 1.23	12.759	.002**

* $p < 0.05$, ** $p < 0.01$; p_1 for parents, p_2 for teachers

According to the *p*-values in **Table 4**, it was found that OTs used e-journals (p_1 = 0.017, p_2 = 0.046), emails (p_1 = 0.001, p_2 = 0.002), online libraries (p_1 = 0.000, p_2 = 0.018), webinars (p_1 = 0.002, p_2 = 0.009), virtual communities of practice (p_1 = 0.002, p_2 = 0.020), virtual focus groups (p_1 = 0.040, p_2 = 0.040) and virtual workshops (p_1 = 0.003, p_2 = 0.014) when transferring knowledge to *both* parents and teachers significantly *less* often than they did when communicating with other professionals.

Also, OTs used e-books (p_1 = 0.010), websites (p_1 = 0.047), online encyclopedias (p_1 = 0.007) and online discussion forums (p_1 = 0.024) significantly *less* often with parents (only), as compared to using them when transferring knowledge to other professionals. Once again, there were no significant differences between the means scores of parents and teachers for any of the online resources, meaning that OTs used online resources practically as often with parents as with teachers for transferring knowledge.

Table 5: Effectiveness of online resources

	Parents	Teachers	Other professionals	Test-statistic	p-value
E-Leaflet	2.98 ± 0.97	3.02 ± 1.01	3.44 ± 1.16	5.380	.068
E-Newsletter	2.98 ± 1.00	3.02 ± 1.04	3.43 ± 1.21	4.922	.085
E-book	3.00 ± 0.98	3.06 ± 1.05	3.57 ± 1.17	8.252	.016*
E-journal	2.79 ± 1.01	2.90 ± 1.02	3.53 ± 1.21	12.569	.002**
E-Poster	2.96 ± 1.00	3.00 ± 1.02	3.54 ± 1.08	9.557	.008**
E-Conference proceeding	2.74 ± 0.99	2.76 ± 1.04	3.42 ± 1.13	11.453	.003**
E-Reports	3.58 ± 0.88	3.39 ± 1.07	3.93 ± 0.88	8.195	.017*
E-Maps	2.67 ± 1.00	2.84 ± 1.10	3.15 ± 1.08	4.130	.127
E-Picture	3.35 ± 1.08	3.44 ± 1.12	3.78 ± 1.14	5.610	.060
E-Magazine	2.63 ± 0.97	2.73 ± 1.08	3.12 ± 0.75	4.824	.090
Email	3.72 ± 0.94	3.69 ± 0.93	4.24 ± 1.02	12.448	.002**
Websites	3.55 ± 1.05	3.63 ± 1.05	4.14 ± 1.13	11.355	.003**
Online Library	3.08 ± 1.09	3.38 ± 1.02	3.86 ± 1.11	14.159	.001**
Online encyclopaedia	2.96 ± 1.07	3.20 ± 1.17	3.85 ± 1.13	16.191	.000**
Online discussion Forum	3.18 ± 1.07	3.49 ± 1.18	3.94 ± 1.11	12.370	.002**
Blog	2.76 ± 1.04	2.91 ± 1.15	3.18 ± 1.27	2.408	.300
Wikis	2.80 ± 0.92	3.16 ± 1.11	3.29 ± 1.25	3.919	.141
Webinar	3.19 ± 1.10	3.58 ± 1.03	3.98 ± 1.16	13.554	.001**
Virtual community of practice	3.04 ± 1.06	3.28 ± 0.97	3.96 ± 1.17	17.866	.000**
Virtual story telling	2.60 ± 1.03	2.87 ± 1.08	3.28 ± 1.30	6.862	.032*
Virtual focus group	3.04 ± 1.25	3.26 ± 1.07	3.88 ± 1.17	13.588	.001**
Virtual workshop	3.10 ± 1.09	3.37 ± 0.96	3.92 ± 1.07	15.968	.000**

$^*p < 0.05$, $^{**}p < 0.01$; p_1 for parents, p_1 for teachers

As was the case of usage of online resources (**Table 4**), there were several significant differences in their effectiveness in transferring knowledge to parents, teachers and other professionals at both the 5% and 1% levels. **Table 5** shows that there were 15 such differences, whereby OTs found most of these activities being significantly effective to transfer knowledge to other professionals, as compared to both parents and teachers.

The *p*-values indicate that e-journals (p_1 = 0.004, p_2 = 0.014), e-posters (p_1 = 0.018, p_2 = 0.030), e-conferences (p_1 = 0.010, p_2 = 0.012), emails (p_1 = 0.005, p_2 = 0.009), websites (p_1 = 0.005, p_2 = 0.023), online libraries (p_1 = 0.001, p_2 = 0.048), online encyclopedias (p_1 = 0.000, p_2 = 0.017), virtual communities of practice (p_1 = 0.000, p_2 = 0.007), virtual focus groups (p_1 = 0.002, p_2 = 0.017) and virtual workshops (p_1 = 0.000, p_2 = 0.019) were significantly more effective means for OTs to transfer knowledge to other professionals than to *both* parents and teachers.

However, there were significant differences between *only* parents and other professionals, whereby the latter were more effectively communicated with through e-books (p = 0.028), online discussions (p = 0.001), webinars (p = 0.001) and virtual story telling (p = 0.027) by OTs. Lastly, there was only one online resource (p = 0.017), namely e-reports, for which OTs transferred knowledge more effectively to other professionals than to teachers.

Table 6: Correlation coefficients between usage of knowledge transfer tools and their effectiveness for parents

	Effectiveness of Knowledge Transfer Tools
Online Resources	.454**

** *p* < 0.01

Table 7: Correlation coefficients between usage of knowledge transfer tools and their effectiveness for teachers

	Effectiveness of Knowledge Transfer Tools
Online Resources	.385**

** *p* < 0.01

Table 8: Correlation coefficients between usage of knowledge transfer tools and their effectiveness for other professionals

	Effectiveness of Knowledge Transfer Tools
Online Resources	.443**

** *p* < 0.01

The SPSS-generated results are shown in **Tables 6** to **8** above, where it is observed that, for each group of respondents, all independent variables were significantly correlated with effectiveness of knowledge transfer tools at the 1% level, except for one (**Table 8**). The usage of social media platforms was not

significantly correlated with its effectiveness in the case of other professionals (r = 0.234, p = .086) at the 5% level of significance.

Nonetheless, since most, if not all, independent variables in each of the three sets had significant correlations with the effectiveness of knowledge transfer tools.

DISCUSSIONS

Since SEN students comprise of a variety of impairments, they require distinct teaching strategy (Sitopu et al., 2024; Guna et al., 2024; Fawait et al., 2024) not only from the OT but from all the stakeholders working with them. This study examined the different online knowledge transfer tools OTs used to transfer knowledge to other stakeholders in order to get the best solutions for future recommendations for each category of respondent. As per the first objective of the study, the usage of the online resources for each category of respondent was analyzed and compared. From the Table 4, it was found that OTs used e-journals, emails, online libraries, webinars, virtual communities of practice, virtual focus groups and virtual workshops when transferring knowledge to *both* parents and teachers significantly *less* often than they did when communicating with other professionals. Also, OTs used e-books, websites, online encyclopedias and online discussion forums significantly *less* often with parents (only), as compared to using them when transferring knowledge to other professionals.

One common point was observed from the findings of this section which was that OTs utilized these online resources (e-journals, emails, online libraries, webinars, virtual communities of practice, virtual focus groups and virtual workshops) more with other professionals than with parents and teachers. Several factors can be deduced from this outcome. The first one is that the IT literacy of other professionals are more than that of parents and teachers and OTs find themselves more comfortable dealing with other professionals through these online resources. The second one is other professionals have been trained to use these online resources more than parents and teachers. The third one is that the usage of these online resources does not hinder the transfer of knowledge from the OTs to these professionals and the messages are conveyed. On the other side of the coin, it can be derived as well that parents and teachers are not well equipped to use online resources. This may be a consequence of low IT literacy or lack of training in using these resources. On the second section of usage of online resources, it was also noted that OTs used e-books, websites, online encyclopedias and online discussion forums significantly *less* often with parents (only), as compared to using them when transferring knowledge to other professionals. Moreover, it was considered that OTs used some online resources (e-books, websites, online encyclopedias and online discussion forums) more frequently with other professionals than with parents. Hence, to summarize the usage of online resources, OTs used them more with other professionals than with teachers and parents when compared with all the three respondents. However, if parents and teacher's category was compared, there were no significant differences between the means scores of parents and teachers for any of the

online resources, meaning that OTs used online resources practically as often with parents as with teachers for transferring knowledge.

As per the second objective, this research examined the effectiveness of the online resources with the three categories of respondents. The analysis showed that e-journals, e-posters, e-conferences, emails, websites, online libraries, online encyclopedias, virtual communities of practice, virtual focus groups and virtual workshops were significantly more effective means for OTs to transfer knowledge to other professionals than to *both* parents and teachers. Prior literatures also confirm the effectiveness of these above-mentioned online resources. According to Sawitry, (2011), E-journals are designed to be easily readable by anyone in need of scientific data. Duchin and Sherwood (1990) stated that an e-poster uses a well-planned arrangement to communicate information and have a logical flow of information, clear images, and little text for easy comprehension and real-world application. Additionally, Malka et al., (2015) shared that health professionals utilize email to collaborate and get consultations from other experts since it allows for the easy sharing of information and improves effective communication. Moreover, e-library allows all users to access well-managed knowledge repositories (Cidral et al., 2018: Meskhi et al., 2019; Atkinson, 2021; Trappey et al., 2021; Anjaria, 2020; Islam et al., 2011) and online encyclopedias help in organizing content presentation, accessibility, interactivity, and multimedia and visual components that aid with concept clarification (Sarinah et al., 2024). Research has also classified virtual communities of practice as an effective tool that organizations and policymakers can purposefully develop for the aim of disseminating information in a targeted manner (de Carvalho-Filho et al., 2020; Zamboni et al., 2020). Moreso, virtual workshop was also termed as effective as it helps in fostering an atmosphere that encourages innovation, teamwork, and fruitful participation (Glowbl, 2024).

The second segment of effectiveness of online resources also unearthed that e-books, online discussions, webinars and virtual story telling were rated as effective by OTs between only parents and other professionals. As per previous literature, the above mentioned online resources have proved their efficacy; e-books are useful because they simplify concepts, facilitate successful learning experiences, and help develop specific skills (Al-Astal & Zaydah, 2015; Collins et al., 1997; Glasgow, 1997; Short, 2010), online discussion forums have proven to be effective communication tools for fostering engagement, exchanging ideas, and disseminating knowledge (Nandi et al., 2009), webinars help professionals share their experiences and convey scientific information (Li et al., 2020) and digital storytelling aided in the development of critical thinking and problem-solving skills (Chen & Chuang, 2020; Yang & Wu, 2012; McLellan & Wyatt, 2006), digital, global, technological, visual, and knowledge literacy (Brown et al., 2005; Çetin, 2021), communication skills (Karakoyun & Kuzu, 2017; Mnisi, 2015; Al-Amri, 2020; Öztürk & Tunç Ayvaz, 2017), creativity and critical thinking (Anggeraini, 2020; Tabieh et al., 2021), research skills (Çiçek, 2018), and integration skills (Kabaran et al., 2019). Lastly, e-reports were found to be more effectively to other professionals than to teachers which aligns to a study done by Permana and

Daniswari (2021) stating that e-reports helps in success of educational services as it facilitates the full planning, execution, and evaluation process of stakeholders in accordance with roles and responsibilities.

As per the third goal of this study, the relationship between the online resources and their efficacy was tested. The SPSS-generated results are shown in **Tables 6** to **8** above, where it is observed that, for each group of respondents, all independent variables were significantly correlated with effectiveness of knowledge transfer tools at the 1% level (**Table 8**). All independent variables in each of the three sets had significant correlations with the effectiveness of knowledge transfer tools. Hence, *H_0: Online Resources* have no impact on *Effectiveness of Knowledge Transfer Tools* was rejected *and H_1: Online Resources* have a significant positive impact on *Effectiveness of Knowledge Transfer Tools* was accepted. This resulted in the deduction that online resources were very useful to OTs in transferring knowledge to all the three respondents.

To summarise, out of the three categories of respondents, online resources were more adapted for the other professionals than to parents and teachers which shows that there is a big work which needs to be done with these two categories in terms of IT literacy and training. Moreover, it was found that the mean of tools used with teachers and parents were almost same. If ICT needs to be incorporated in SEN learning, it will be recommended that more studies be done on these two groups to improve their work.

CONCLUSION

Knowledge transfer is very important amongst SEN stakeholders as this is the key to improve SEN learning. By sharing knowledge amongst the different people working with SEN, new experiential knowledge can be generated which may fasten the SEN learning process and since time is evolving and the 21st century skills demand the use of ICT skills, the use of online resources as KT tool amongst the stakeholders is a must. Unfortunately, it was deducted from this study that the most of the online KT tools were used with other professionals only. It is therefore recommended to work on other studies on teachers and parents and see how to incorporate training sessions on the online resources to better help them. It is recommended also to have more studies to figure out which of the KT tools other than ICT which are being used to transfer knowledge to these two respondents. Nevertheless, this studied had certain limitations as well like small OT sample and the KT tools were restricted to online resources which can be extrapolated in future studies.

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