Exploring teachers' perceptions of Continuing Professional Development (CPD) for inclusive education: General and special education teachers in Mkushi District, Zambia

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ABSTRACT:

The purpose of this study was to explore teachers' perceptions of Continuing Professional Development (CPD) for inclusive education in Mkushi District, and its role in improving pedagogical practices in inclusive settings. The study was conducted among 78 general and special education teachers teaching in primary and secondary schools that were either special or inclusive education schools. A survey research design was used to measure teachers' perceptions about the current practices in inclusive education and their training needs to enable them to implement inclusive education. A self-administered online questionnaire was sent out to participants, through which quantitative and qualitative data were collected and analyzed. The findings suggest that generally, teachers in Mkushi have positive perceptions about CPD for inclusive education and were enthusiastic about the practice. However, the teachers indicated that they needed CPD to focus on how to teach in inclusive settings and to develop skills in adapting teaching materials to meet learners' needs. The teachers believed that these training needs could be achieved if they were trained by experts in inclusive education. It is hoped that the findings of this research would lead to more effective models for teachers' professional development in inclusive education in Zambia.

Keywords: continuing professional development, inclusive education, special education, teachers' perceptions

INTRODUCTION

The integration of learners with special education needs (SEN) into mainstream schools requires making reasonable adjustments to enable them to learn alongside their peers without disabilities in inclusive settings. The Zambian government has enacted several laws and policies regarding the legislation of education of persons with disabilities, which provide a foundation for current practices in special and inclusive education in Zambia (Chitiyo & Muwana, 2018; MOE, 2015). However, with the extra pressure to include learners with SEN, many teachers in Zambia lack adequate knowledge, skills, and confidence to manage these learners. Therefore, Continuing Professional Development (CPD) for teachers becomes critical and this research topic was chosen so that it could provide an opportunity to capture teachers' perspectives of how they are professionally supported in implementing inclusive education and how CPD facilitates and/or inhibits how they experience, understand and construct inclusion in their classrooms.

BACKGROUND CONTEXT

Development of Inclusive Education in Zambia

Inclusive education is an approach to meeting the educational needs of all students through instructional approaches that support their learning and participation in schools and communities and respond to their instructional requirements (Carrington et al., 2012; Chhetri, 2015; Florian, 2014; Muwana & Ostrosky, 2014). IE supports the diverse needs of students in a community that promotes acceptance, collaboration, cooperation, and democratic participation (Carrington et al., 2012). It, therefore, requires the inclusion of students with disabilities (SWD) in all activities and not for them to be removed from the regular classroom. Schools design individual programs for each student and all students receive individualized services and approaches to learning regardless of ability or disability (Carrington et al., 2012).

Following the declaration and recognition of education as a fundamental human right (Carrington et al., 2012; United Nations, 2007), the Zambian government through the Ministry of Education (MOE) formulated policies such as the Education Policy (Educating our Future), 1996, Education Act 23, 2011, Disabilities Act 6, 2012 and the National Policy on Disability, 2015 (MOE, 2015). After the launch of the "Educating our Future" policy document (MOE, 1996), Zambia adopted the inclusive education as an ideal practice for all students. This showed the government's commitment to ensuring SWD received equitable and quality education as much as possible. Further, the Inclusive Schooling Program was piloted in the Kalulushi district in the Copperbelt province in 1997. In 2004, the program was introduced in 21 other districts (Ngulube, 2016). By 2015, all schools were required to include all learners regardless of disability and to make the necessary adjustments to meet their learning needs based on the MOE implementation guidelines (MOE, 2015). The program involved training teachers and administrators on how to implement inclusive education. This meant that a series of professional development programs had to be conducted to ensure that teachers were well-prepared for this program. Despite all these efforts by government to promote inclusion, many teachers still feel unprepared and lack the mandatory skills and confidence to effectively address student diversity in their classrooms (Chitiyo & Muwana, 2018; Muwana & Ostrosky, 2014; Ngulube, 2016;). As such, Continuing Professional Development (CPD) programs are warranted to address these shortcomings.

Continuing Professional Development (CPD) in Zambia

CPD is an ongoing teacher education activity aimed at improving teachers' skills to meet students' learning needs and increase teachers' knowledge and understanding, to enhance student learning outcomes and achievements (Kabila et al., 2018; Mubiana, 2011; Tesfaw & Hofman, 2012). CPD aims to bring positive changes in teachers' classroom practices, attitudes, and beliefs. It builds teachers' capacity to reflect on, analyze and document their experiences through a systematic series of workshops, formal and informal meeting discussions, training sessions, and lesson observations (Mangope & Mukhopadhyay, 2015; Selemani-Meke, 2013). There are many terms that have been used to describe staff development but the term CPD has been selected for this study because the term 'continuing' suggests something that is uninterrupted or ongoing (O'Brien & Jones, 2014). Thus, teachers have to continuously deepen their knowledge and competencies and keep themselves updated with fundamental developments in their profession. In addition, the term CPD implies individual and organizational commitment and requires all employees to update their knowledge and skills for the benefit of the entire profession (Bowen, 2013).

Through the MOE, the Zambian government acknowledges the importance of teachers' professional development and their role in meeting the challenges of

providing quality education. Therefore, the national education policy (MOE, 1996) underlines the importance of employing and maintaining qualified and competent teachers. The MOE identifies CPD as a means of ongoing in-service training aimed at familiarizing teachers with new curriculum content and materials, upgrading their instructional skills, and enhancing their resourcefulness (MOE & JICA, 2015). CPD programs in Zambia are mainly in the form of short-term ongoing programs, which consist of capacity-building activities that take place within schools or in teachers' resource centers (Mubanga, 2012). They mainly involve small teacher group meetings and lesson study cycles (LSC) held regularly to facilitate quality teacher professional development by discussing professional issues that develop teachers' knowledge and skills (MOE & JICA, 2015; Sinyangwe et al., 2016). Considering the challenges of teacher competency and lack of confidence to teach in inclusive settings, the MOE adopted CPD as an avenue for staff development in inclusive education for in-service teachers (Chitiyo & Muwana, 2018; Wapling, 2016).

CONTINUING PROFESSIONAL DEVELOPMENT FOR INCLUSIVE EDUCATION

Several factors influence teachers' ability to administer inclusive education, including their attitudes, training, and willingness to positively respond to student diversity in their classrooms. Research shows that teachers lack self-efficacy and confidence in their capability to manage student diversity due to a lack of, or insufficient training in special education (Bailey et al., 2015; Saloviita, 2020; Sharma et al., 2019). A further research study by Florian and Linklater (2010), found a lack of teacher training as a barrier to inclusion. Ngulube (2016) found that most Zambian teachers lacked the necessary expertise to implement interventions and believed that inclusive education was not their responsibility but that of specialist teachers. Similarly, Chitiyo and Muwana (2018) reported that many teachers in Zambia lacked the mandatory skills to effectively address student diversity in their classrooms. Additionally, they found that most special education teachers did not support inclusive education because they assumed most teachers in regular schools lacked the ability to manage students with SEN. However, professional development could have a great influence on these assumptions, teachers' attitudes, and their efficacy in inclusive education.

To manage learner diversity in their classrooms, teachers ought to have various additional skills and strategies

as well as positive attitudes toward the education of students with SEN. CPD programs are necessary to address these limitations as they positively influence teachers' attitudes and improve their efficacy (Bailey et al., 2015; Habler et al., 2015; Sharma et al., 2019). In inclusive education, CPD plays the role of improving the capacity of teachers to cater to the needs of students with SEN in the regular classroom and to keep them updated with changes in inclusive education policies and appropriate support practices (Das et al., 2013).

CPD has several benefits for towards implementation of inclusive education and depending on their experiences; teachers have varying perceptions about it. CPD impacts educational processes and outcomes as it enables teachers to stay updated with knowledge and instruction in their subject areas (Kagoda & Ezati, 2014; Sinyangwe et al., 2016). This means that teachers become more competent as they are able to update and extend their professional knowledge and skills on major developments in inclusive education (Kagoda & Ezati, 2014). Additionally, they are able to recognize and reinforce new areas of practice (Sinyangwe et al., 2016). CPD also enables teachers to make creative use of technologies to overcome barriers that SWD encounters (Habler et al., 2015). They become familiar with new technologies, such as the use of assistive devices and equipment. CPD further reduces teacher attrition as it provides professional learning communities through which teachers can interact to share ideas and experiences about managing student diversity. It offers stimulation and support for change when older teachers in the profession meet with their colleagues (Kagoda & Ezati, 2014). This implies that older teachers have opportunities through CPD to learn from newly trained teachers about new developments in inclusive education and new ways of managing students with SEN. Furthermore, teachers hardly find time to network during workdays, therefore, CPD programs provide an opportunity to interact and analyze teaching techniques to refresh their skills (Thomas, 2009). Therefore, in inclusive education, CPD helps to reduce stress when dealing with the demands of inclusion and it results in less resistance to inclusive practices, as it creates communities of practice for teachers, rather than working in isolation (Kagoda & Ezati, 2014).

Finally, while many variables affect students' academic achievement, some areas of research point toward teachers' CPD as one of the contributing factors (Asmari, 2016; MOE & JICA, 2015; Thomas, 2009). CPD enables teachers to improve their classroom practices and instructional approaches, increases levels of engagement

with students with SEN, promotes personal and professional growth, improves teachers' attitudes toward students with SEN, and develops positive values and beliefs with regard to inclusion and teachers' sense of commitment to their relationship with SWD (Hennessy et al., 2016; Plair, 2013; Nishimura, 2014; Subban & Mahlo, 2017).

Desimone's conceptual framework for the evaluation of CPD

Desimone's (2009) model of CPD evaluation is a conceptual framework for studying the impact of professional development on teachers and students. The framework provides five elements of professional development which are further categorized into core elements and structural elements. Core elements include content focus and coherence, and they refer to CPD learning content (Desimone, 2009; Merchie et al., 2018). While structural elements include duration, collective participation, and active learning and refer to the structure or design of CPD activities (Darling-Hammond et al., 2017; Desimone, 2009; Merchie et al., 2018).

Desimone (2009) emphasizes that although it is important for the core features of CPD to be present in any professional development, their presence alone does not determine the effectiveness of CPD. Therefore, she proposed a basic model of how CPD could effectively influence teachers and lead to increased student learning. The model shows an interactive relationship among the core features and suggests the following steps for successful professional development: (a) teachers should participate in professional development (b) professional development should increase teachers' knowledge and skills, change their attitudes and beliefs or both (c) teachers should be able to use their knowledge, skills, attitudes, and beliefs to improve their classroom practice, that is, content or instruction approach or both (d) the new instructional changes should increase student learning outcomes (Desimone, 2009).

Active Learning

As opposed to passive learning, professional development should provide opportunities for teachers to be actively engaged in learning activities such as observing expert teachers or being observed, making presentations, receiving feedback, and engaging in or leading discussions (Desimone, 2009). This means that CPD should be participant-driven and should enable participants to engage with content, with each other, and with facilitators to allow for the application and exchange of knowl-

edge (Kashoti et al., 2018; Hennessy et al., 2016). Other scholars have also suggested that CPD should be practical, allowing participants to apply new knowledge in classroom settings, to observe and be observed, and to receive feedback as a way of enhancing pedagogical skills and avoiding rote learning (Srinivasacharlu, 2019).

Collective Participation

Professional development should promote an interactive learning community by providing opportunities for teachers of the same subject, grade, department or school to participate in the same activity (Desimone, 2009). This allows teachers to collaborate or collectively share their knowledge, concepts and experiences. Furthermore, it allows teachers to improve their practice, especially when participants are at various stages of readiness. This relates to the concept of community of practice proposed by Lave and Wenger (1991) who described it as a group of individuals who share common knowledge, skills, beliefs or attitude and learn how to do things better as they regularly interact. Kashoti et al. (2018) and Hauge and Wan (2019) identify that this approach encourages collaboration and provides opportunities for teachers to discuss the successes and challenges in implementing new strategies. Kashoti et al. (2018) further summarize that collaboration, through collective participation sustains changes to teaching practice as teachers have more opportunities to discuss issues pertaining to their profession. It provides opportunities for reflection, for teachers to learn from each other and increases efficacy (Kashoti et al., 2018).

Coherence

An important aspect of coherence is that there should be consistency between what is taught in professional development and teachers' knowledge and beliefs, school, district, and state policies or reforms (Desimone, 2009). Das et al. (2013) added that this could be achieved if teachers were involved in planning from the beginning as they could identify their own needs and ensure that they were incorporated into CPD programs. When CPD aligns with participants' knowledge and beliefs, it allows them to be reflective practitioners (Mangope & Mukhopadhyay, 2015). This enables them to make a connection between the learning content and real work experiences. This assertion relates to the constructivist theory of learning whose view is that learners or participants construct knowledge from their experiences (Vygotsky, 1978). Research indicates that many teachers fail to commit to CPD programs that lack a connection between what they

are learning and the realities of their classrooms (Das et al., 2013; Smeby & Heggen, 2014) and that there is a positive relationship between coherence and changes in teaching practice (Kang et al., 2013).

Content Focus

As opposed to traditional models, professional development that focuses on specific subject content and teaching techniques leads to teachers' increase in knowledge, skills, and improvement in practice (Desimone, 2009). This means that to be effective, CPD content should be contextually meaningful to participants and allow association of what they are learning to their experiences. Findings by Gore and Rosser (2022) showed that content-focused CPD generated fundamental insights for teachers about their practice and their students. It improved their ongoing collaboration with their colleagues and changed their beliefs and practice. Therefore, CPD that focuses on a specific content context, rather than in an abstract context that is content-free, is more effective and may lead to improved results in teacher knowledge and practice and possible student achievement. Kashoti et al. (2018) add that content-focused CPD offers knowledge that relates to general teaching practices such as classroom supervision and organization, instructional strategies and assessment as well as subject content. In addition, Plair (2013) amplifies this by stating that CPD content should be student focused and based on practice in order to address challenges that occur in everyday teaching and learning. Similarly, results by the National Centre for Education Evaluation (NCEE, 2017) showed that CPD that focused on improving teachers' knowledge of content and content-specific pedagogy produced significant improvements in the teachers' knowledge by the end of the year which the CPD program was implemented.

Duration

As opposed to one-time workshops, conferences, or seminars, Desimone (2009) states that professional development should be provided over a sufficient period of time. This should include the duration of the activity and the span over which such activities take place (i.e., should be ongoing as opposed to a one-off activity). To reinforce this assertion, Mangope and Mukhopadhyay (2015) point out that effective CPD should have a systematic, ongoing pattern. Therefore, in an instance where one-time workshops or seminars are the only options, they should be followed up by meetings that would allow teachers to review and clarify their concerns (David & Kuyini, 2012). This implies that if CPD is to contribute

to the general improvement of education, it should be a continuous process. If one activity is not followed or built on by another, it may have little or no value. With this view, David and Kuyini (2012) place emphasis on the significance of ongoing in-house mentorship programs. For example, a general education teacher whose intention is to learn and continue to improve their knowledge and skills in handling students with SEN can collaborate with a special education teacher. Similarly, Li et al. (2021) suggest that shorter contact hours and longer span of time required for CPD generate willingness for teachers to improve their practice and consequently influence their attitudes and they suggest the use of Workshop-Seminar-Demonstration Class PD (WSD-PD).

Desimone's (2009) elements of effective professional development are critical in ensuring that teachers not only participate in professional development but that they should also be able to increase their knowledge and skills. This knowledge and skills should enable teachers to improve their practice in order to increase students' learning outcomes.

Although there are other frameworks for evaluating CPD such as Kirkpatrick's (1959) and Guskey's (2000) frameworks, Desimone's (2009) framework was selected for this study because it provides a strong foundation for studying the effectiveness of CPD. It is comprehensive in practice as it tests for fundamental aspects of CPD outcomes, that is, do teachers learn? Does their teaching practice change? And most importantly, does it result in improved student outcomes? (Desimone et al., 2002; Kang et al., 2013; King, 2014; Merchie et al., 2018). Kirkpatrick's (1959) framework on the other hand raises questions on whether it is still a wholesome and effective tool to evaluate a program considering that it has come a long way and a lot has changed in the last six decades. The framework has been criticized for its rigidity and tendency to use lower levels and leave out other essential aspects of the evaluation and its lack of evidence on the cause and effect among the levels (Cahapay, 2021; Reio et al., 2017). Older research also found the Kirkpatrick framework to be inadequate in its explanatory power as it only provided a broad range of characteristics of effective CPD but failed to explain why these were effective, as such it had not been widely used in education (Alliger & Janak, 1989; Guskey, 2000; Holton, 1996). Similarly, Guskey's (2000) framework has been criticized for its use of a hierarchical structure. Coldwell and Simkins (2011) and King (2014) dispute the concept of successive levels used by Guskey arguing that the success of one level is not a consequence of the other. They also suggested that

the model should have encompassed all the variables that affect CPD evaluation. Based on these arguments, this study was guided by Desimone's (2009) framework.

METHOD

This study used the survey research design as it explored teachers' perceptions about CPD for inclusive education. Considering the timeframe for conducting this research, a cross-sectional survey was used to collect information over a short amount of time, to investigate the current perceptions and practices in CPD for inclusive education among general and special education teachers. Following the convergent parallel design, mixed data (quantitative and qualitative) were collected through an online questionnaire to answer the research questions. The researcher was seeking to collect quantitative data that has strength in numbers and which could provide information about the population. This was complemented by qualitative data to provide richer descriptions of specific survey items and attain a more complete understanding of the research problem.

A web-based questionnaire created using Qualtrics software was disseminated to teachers using a link to the anonymous survey. The questionnaire had closed-ended items some of which required participants to respond using a 5-point Likert scale with anchors strongly agree (1) to strongly disagree (5) and open-ended questions to allow participants to explain their situations due to the unique nature of their contexts and needs. To determine whether participants were capable of completing the survey and that they understood the questions, the questionnaire was piloted with three teachers and a Doctor in Education who provided feedback suggesting minor modifications. Based on the feedback, modifications to the wording and formatting of items were made before the final version of the questionnaire was used with the survey participants.

Sample and sampling procedure

Mkushi District was selected for this study which focused on teachers from schools in the central business district. Mkushi central business district has a total teacher population of about 120 and 180 at primary and secondary school levels, respectively. The population for this study consisted of special education and general education teachers from both primary and secondary schools in Mkushi District that either had special education units or offered inclusive education.

The survey aimed to study at least 30 teachers; therefore, surveys were sent out to 100 teachers to obtain at least 30 replies. Stratified sampling was used to target two groups of participants i.e. those trained in special education and those not trained in special education but were teaching in inclusive schools. There are a total of 22 teachers trained in special education in Mkushi District and these were all purposively selected to be invited to participate in this study. An additional 88 general education teachers from the inclusive schools were also purposively selected to be invited to participate using the generic purposive sampling approach on an a priori basis, that is, should have a general education background and be teaching in an inclusive school.

Data Analysis

A total of 90 participants returned the questionnaires. Twelve questionnaires were discarded as respondents did not respond to any question, therefore 78 were analyzed. To rule out the need for manual data entry and to eliminate possible data entry errors, data from the 78 questionnaires were exported into an Excel software package. Before data analyses were conducted, the datasets were screened for missing data and any abnormalities. Descriptive statistical analysis was conducted to summarize the data and present the results in the form of summary statistics as well as frequency and percentage of the variable scales. Thematic analysis was conducted for the detailed qualitative responses to the open-ended questions.

Closed-ended and open-ended responses were separated, coded, and exported from Excel to SPSS version 26.0, from which values were labeled. Respondents were asked on a 5-point Likert scale, from strongly agree (1) to strongly disagree (5) with attitudinal statements relating to CPD for inclusive education. Further, open-ended responses were checked for missing data and only 43 out of 78 were valid. The responses were systematically coded to identify patterns and themes which were then placed into categories and sub-categories. The coded responses were entered into Excel, and descriptive statistics were generated and analyzed. The responses to each item were grouped into themes for analysis.

FINDINGS AND DISCUSSION

Out of 78 respondents, 69.2% were general education teachers, 21.8% were qualified as special education teachers 9.0% did not specify. The majority 66.7% of the respondents were females while 23.1% were males and 10.3% did not specify. About 71.8% of the teachers had bachelor's degrees in education followed by 10.3% with a diploma and the rest held Master, Ph.D., and oth-

er certificates, while 9.0% did not specify. Further participants' demographic information is shown in Table 1 and this information broadly reflects the makeup of Zambia's teaching population (MOE, 2016).

Active Learning

To find out if CPD promoted active learning among participants, teachers were asked to indicate their level of agreement with four survey items. The findings established that teachers in Mkushi had opportunities to be actively involved in the CPD activities and as a result, they gained a better understanding of managing learner diversity. As shown in Table 2, the teachers generally agreed that they had opportunities to discuss with colleagues how to improve teaching in inclusive settings (mean= 1.76). In addition, they agreed that they had opportunities to share ideas on how to improve teaching in inclusive settings through group discussions and presentations (mean=1.5), to observe others and be observed in teaching and provide feedback (mean=1.92), and that CPD offered opportunities to be active learners (mean=1.5). However, when asked to describe the CPDs in which they had participated, most teachers did not specify how they participated. This is probably because many teachers had only participated as passive learners rather than active learners. These findings show that from their perspective, teachers had opportunities to actively engage in learning activities during CPD.

These findings are consistent with the features of active learning from Desimone's (2009) framework, which recommends moving away from traditional lecture-based models, towards engaging and practical models connected to teachers' classrooms and students. As opposed to sit-and-get, CPD programs that are practical and participative driven as the ones described by the teachers in this study, enhance teachers' pedagogical skills and enable them to apply their newly acquired knowledge. Similarly, active learning improves some aspects of teachers' feedback, and professional development that uses this strategy is effective and sustainable and can provide long and short-term changes in teachers' behavior (Van den Bergh et al., 2014; Park & Xu, 2022). This consequently improves teacher competence and persistence and has the potential to improve student outcomes.

Collective Participation

Descriptive statistics of the responses for the three statements in the element of collective participation were conducted. Table 3 shows that all or almost all of the teachers agreed that CPD provided opportunities for

them to share knowledge and experiences with colleagues from the same department or grade level (mean= 1.6), and from other schools (mean= 1.73). All teachers also agreed that they needed more opportunities to collectively participate with their colleagues (mean= 1.49). These findings reveal that teachers perceived CPD to promote an interactive learning community through which they were able to collaborate or collectively share their knowledge and experiences and that they needed more of such interactions. This is in accordance with the implementation guidelines provided by the Zambian Ministry of Education, that one-off workshops should be followed by a series of more interactive activities to take place within schools (MOE & JICA, 2015; Mubanga, 2012). This also aligns with earlier studies which have shown that through collective participation, teachers obtain stimulation and support necessary for change and that it provides ongoing training opportunities, team teaching, mentoring, and development of networks (Kagoda & Ezati, 2014; Kashoti et al., 2018). Through such interactions, teachers indicated that they had gained a better understanding of managing learner diversity and they had opportunities to discuss with their colleagues how to improve teaching in inclusive settings. Similarly, Desimone's (2009) framework suggests that this approach makes CPD effective as it enables teachers to improve their practice, especially when they are at various stages of readiness. A study by Hauge and Wan (2019) further points out that collective participation promotes trust among participants. It is perhaps because of this trust that teachers were able to share their knowledge and experience with their colleagues. Although it may not be right to assume that professional development automatically occurs when teachers collaborate, the successful implementation of inclusive education depends on collaboration of teachers and CPD is one of the avenues that this could be achieved when it is controlled, led and supported by teachers as it helps to bridge the gap between old and new methods and ways of practice and thinking

Coherence

The descriptive statistics in Table 4 show that teachers tended to agree that CPD in their schools was consistent with their knowledge, experiences, and beliefs, as well as their school policies and reforms. These had mean scores of 1.83 and 2.03 and standard errors of 0.07 and 0.11 respectively. About 8.9% of the teachers neither agreed nor disagreed that CPD was consistent with their schools' policies and reforms, 5.4% disagreed while 1.8% strongly disagreed. The rest strongly agreed (21.4%) and agreed

Table 1. **Participants' demographic information (n=78)**

Variable	Group/Category	Missing (%) n = 7 (9.0%) Frequency (%)	General Education n= 54 (69.2%) Frequency (%)	Special Education n = 17(21.8%) Frequency (%)	Total n = 78 (100.0%) Frequency (%)
Gender	Male	-	14(25.9%)	4(23.5%)	18(23.1%)
	Female	-	39(73.9%)	13(76.5%)	52(66.7%)
	Missing	7(100.0%)	1(1.9%)	-	8(10.3%)
	Total	**7(100.0%)**	**54(100.0%)**	**17(100.0%)**	**78(100.0)**
Age	25-29	-	6(11.1%)	-	6(7.7%)
	30-39	-	31(57.4%)	12(70.6%)	43(55.1%)
	40-49	-	15(27.8%)	3(17.6%)	18(23.1%)
	50-59	-	2(3.7%)	2(11.8%)	4(5.1%)
	Missing	7(100.0%)	-	-	7(9.0%)
	Total	**7(100.0%)**	**54(100.0)**	**17(100.0%)**	**78(100.0%)**
Years of teaching	0-3	-	3(5.6%)	1(5.9%)	4(5.1%)
	4-7	-	8(14.8%)	-	8(10.3%)
	8-10	-	15(27.8%)	5(29.4%)	20(25.6%)
	More than 10 years	-	28(51.9%)	11(64.7%)	39(50.0%)
	Missing	7(100.0%)	-	-	7(9.0%)
	Total	**7(100.0%)**	**54(100.0%)**	**17(100.0%)**	**78(100.0%)**
Level of qualification	Diploma	-	6(11.1%)	2(11.8%)	8(10.3%)
	Bachelor's degree	-	44(81.5%)	12(70.6%)	56(71.8%)
	Master's degree	-	3(5.6%))	2(11.8%)	5(6.4%)
	Doctoral degree (PhD)	-	1(1.9%)	-	1(1.3%)
	Others	-	-	1(5.9%)	1(1.3%)
	Missing	7(100.0%)	-	-	7(9.0%)
	Total	**7(100.0%)**	**54(100.0%)**	**17(100.0%)**	**78(100.0%)**

Variable	Group/Category	Missing (%) n = 7 (9.0%) Frequency (%)	General Education n= 54 (69.2%) Frequency (%)	Special Education n = 17(21.8%) Frequency (%)	Total n = 78 (100.0%) Frequency (%)
Teaching specialisation in school	Special Education	-	-	4(23.5%)	4(5.1%)
	General Education	-	49(90.7%)	3(17.6%)	52(66.7%)
	Both	-	5(9.3%)	10(58.8%)	15(19.2%)
	Missing	7(100.0%)	-	-	7(9.0%)
	Total	**7100.0%)**	**54(100.0%)**	**17(100.0%)**	**78(100.0%)**
Level of school	Primary	-	5(9.3%)	10(58.8%)	15(19.2%)
	Secondary	-	49(90.7%)	6(35.3%)	55(70.5%)
	Missing	7(100.0%)	-	1(5.9%	8(9.0%)
	Total	**7(100.0%)**	**54(100.0%)**	**17(100.0%)**	**78(100.0%)**
Type of school	Special Unit	-	-	8(47.1%)	8(10.3%)
	Inclusive Education	-	21(38.9%)	5(29.4%)	26(33.3%)
	General Education	-	33(61.1%)	3(17.6%)	36(46.2%)
	Missing	6(100.0%)	-	1(5.9%)	7(9.0%)
	Total	**6(100.0%)**	**54(100.0%)**	**17(100.0%)**	**78(100.0%)**

Table 2. **Knowledge and perceptions about CPD for IE: Active learning**

Variable	Size(n)	Mean (SE)	Scale				
			Strongly Agree	**Agree**	**Neither agree nor disagree**	**Disagree**	**Strongly Disagree**
			Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)
Opportunity to discuss with colleagues	55	1.76 (0.1)	21 (38.2%)	28 (50.9%)	4 (7.3%)	2 (3.6%)	-
Opportunity to share ideas with others	56	1.5 (0.07)	29 (51.8%)	26 (46.4%)	1 (1.8%)	-	-
Opportunity to observe others and be observed	57	1.92 (0.12)	18 (31.6%)	w31 (54.4%)	4 (7.0%)	2 (3.5%)	2 (3.5%)
Opportunity to be an active learner	57	1.5 (0.07)	30 (52.6%)	25 (43.9%)	2 (3.5%)	-	-

Table 3. **Knowledge and perceptions about CPD for IE: Collective Participation**

Variable	Size(n)	Mean (SE)	Scale				
			Strongly Agree	**Agree**	**Neither agree nor disagree**	**Disagree**	**Strongly Disagree**
			Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)
Share knowledge and experiences with colleagues from department/grade level	55	1.6 (0.06)	22 (40.0%)	33 (60.0%)	-	-	-
Share knowledge and experiences with colleagues from other schools	56	1.73 (0.07)	18 (32.1%)	36 (64.3%)	1 (1.8%)	1 (1.8%)	-
More opportunities to collectively participate with colleagues	57	1.49 (0.06)	29 (50.9%)	28 (49.1%)	-	-	-

(62.5%). These findings suggest that there was consistency between what was taught in CPD and teachers' knowledge and beliefs as well as their schools' inclusive education policies and/or strategies. If CPD is to be used as a means of achieving successful inclusion, it should be able to address teachers' concerns about inclusion (Mangope and Mukhopadhyay, 2015). This can be achieved when there is consistency between what is taught in CPD and teachers' knowledge and beliefs and their school policies (Desimone, 2009). These findings align with this recommendation from Desimone's framework and findings by Smeby and Heggen (2014) who suggest that coherence has a great impact on teachers' outcomes as it creates a link between theoretical knowledge and practical skills. Inevitably, teachers are likely to have concerns about inclusion depending on their experiences and beliefs. If these concerns are not addressed, teachers may fail to commit or make a connection between what they are taught in CPD and their classroom experiences.

Content Focus

After analysis of responses from the six statements in the element of content focus, descriptive statistics in Table 5 showed that teachers generally agreed that their knowledge and understanding of instructional practices was broadened through the CPD they had undertaken (mean= 1.74). A similar mean score was obtained for gaining a better understanding of managing learner diversity in their classrooms (1.7). Further, the teachers agreed that they had gained more content knowledge through CPD (mean= 1.87), that CPD had broadened their knowledge and skills in inclusive classroom management and assessment (mean= 1.89), and that it provided strategies to improve teaching students with SEN (mean= 1.94). However, many teachers also agreed that they would have liked for CPD to focus more on instructional skills in teaching students in an inclusive classroom (mean= 1.47). Surprisingly, even though teachers indicated that they had gained knowledge and understanding about inclusive education from CPD, their responses concerning their training needs indicated that they needed more training in teaching strategies and how to adapt teaching and learning materials to meet the needs of SWD. This implies that teachers were still not confident in these areas and that, possibly, the CPD offered to them had limited focus on subject-specific content, teaching techniques, and the practical aspects of inclusive education.

These findings agree with studies by Feng (2012), Kabila et al. (2018), and Themane and Thobejane (2019) who

found that teachers in their studies had similar concerns. They found that teachers were reluctant to participate in CPD as it did not meet their training needs to enable them to understand the concept of inclusive education. Desimone's (2009) framework emphasizes that professional development should focus on specific subject content and teaching techniques if it has to increase teachers' knowledge and skills and improve their practice. Perhaps this could be achieved if teachers were involved in planning for CPD programs as suggested by Das et al. (2013) and Gore and Rosser (2022). Intensive, content-focused CPD is an important tool for improving teaching as it improves teachers' knowledge and some aspects of their practice. Further, the teachers indicated that they would have liked to be trained by experts in inclusive education, to meet their training needs. These could be university or teacher-training college lecturers and researchers in the area of inclusive education. Experts, who are typically educators themselves, play a critical role in coaching and providing support by modeling instructional practices and sharing expertise about content and evidence-based practices (Darling-Hammond et al., 2017). However, Desimone (2009) emphasizes that expert training must be interactive and engaging, rather than relying on experts disseminating information such as in the traditional model.

Duration

The results in Table 6 show that about 61.8% of teachers attended CPD programs that lasted 2 hours or less followed by those that lasted 1 or more days (23.6%). This was followed by 3 to 5 hours (10.9%) and least was those that lasted 6 to 8 hours (3.6%). Further, 50.9% of these teachers indicated that they attended CPD meetings on a termly basis, while the least was weekly with 3.64%. These findings suggest that CPD was offered in a systematic ongoing pattern, although it was not very frequent, and not of long duration. Desimone's (2009) framework recommends that professional development should be provided over a sufficient period of time (i.e., the duration of the activity and the span over which such activities take place). Although the framework does not specify a threshold for the duration or frequency of CPD, having CPD on a termly basis for 1 to 3 hours does not seem to be sufficient because inclusive education appears to be demanding and requires careful planning. This is consistent with Darling-Hammond et al. (2017) who suggest that "meaningful professional learning that translates to changes in practice cannot be accomplished in short, one-off workshops" (p. 15). Although teachers indicated that workshops, LSCs, and teacher group meetings

Table 4. **Knowledge and perceptions about CPD for IE: Coherence**

Variable	Size(n)	Mean (SE)	Scale				
			Strongly Agree	**Agree**	**Neither agree nor disagree**	**Disagree**	**Strongly Disagree**
			Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)
Experiences are consistent with knowledge, goals and beliefs	56	1.83 (0.07)	14 (25%)	37 (66.1%)	5 (8.9%)	-	-
Consistent with school policies and reforms on inclusion	56	2.03 (0.11)	12 (21.4%)	35 (62.5%)	5 (8.9%)	3 (5.4%)	1 (1.8%)

Table 5. **Knowledge and perceptions about CPD for IE: Content focus**

Variable	Size(n)	Mean (SE)	Scale				
			Strongly Agree	**Agree**	**Neither agree nor disagree**	**Disagree**	**Strongly Disagree**
			Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)	Frequency (%)
Broadened knowledge and understanding of instructional practices	55	1.74 (0.1)	23 (41.8%)	25 (45.5%)	5 (9.1%)	2 (3.6%)	-
Gained better understanding of managing learner diversity	55	1.7 (0.1)	24 (43.6%)	25 (45.5%)	4 (7.3%)	2 (3.6%)	-
Gained more content knowledge	55	1.87 (0.09)	15 (27.3%)	34 (61.8%)	4 (7.3%)	2 (3.6%)	-
Broadened knowledge and skills in inclusive class management and assessment	56	1.89 (0.09)	14 (25.0%)	36 (64.3%)	4 (7.1%)	2 (3.6%)	-
Focus on instructional skills in managing students in IE	55	1.47 (0.06)	29 (52.7%)	26 (47.3%)	-	-	-
Provides strategies to improve teaching student with SEN	55	1.94 (0.1)	15 (27.3%)	30 (54.5%)	8 (14.5%)	2 (3.6%)	-

Table 6. **Knowledge and perceptions about CPD for IE: Duration**

CPD Frequency	Frequency	%	CDP Duration	Frequency	%
Weekly	2	3.6%	2 hours or less	34	61.8%
Monthly	10	18.2%	3 to 5 hours	6	10.9%
Termly	28	50.9%	6 to 8 hours	2	3.6%
Yearly	15	27.3%	1 or more days	13	23.6%
Total	*55*	*100.00%*	*Total*	*55*	*100.00%*

had worked well for them, ongoing school-based mentorship programs should be made more available to them as they have been found to be more effective (Das et al., 2013; David & Kuyini, 2012; Li et al., 2021; Mangope & Mukhopadhyay, 2015).

SUMMARY

Overall, the findings show that teachers perceived CPD to be effective in preparing and supporting them towards the implementation of IE and seemed to be keen to participate. Their responses indicated that the current CPD provisions aligned with the elements of effective professional development recommended by Desimone's (2009) framework. Similar to other studies (Kashoti et al., 2018; Mangope & Mukhopadhyay, 2015; Subban & Mahlo, 2017), the results show that teachers appreciated the importance and effectiveness of CPD and that it provided them with the opportunities to improve their practice and skills in teaching learners with SEN.

While the results of this study provide valuable insights into teachers' perceptions of CPD for inclusive education, they also substantiate the assertion that professional development conducted by experts in inclusive education would meet their training needs more effectively. Professional development program planners need to consider this while planning such training. Every teacher is capable of effectively providing inclusive practices in their classrooms. As such, professional development in inclusive education is a crucial phenomenon as it deals not only with teacher attitudes towards the inclusion of children with disabilities, but also with their confidence, their skills, and the existing segregative school structures. The traditional sit-and-get type of professional development has not been successful at ensuring a positive shift in teacher attitude and competency in implementing inclusive education. Therefore, educators, mentors, researchers, and scholars must work towards developing professional development programs and strategies to meet their training needs.

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