

Designing an Interactive Training Workshop for Teachers who are Teaching Learners with ASD

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Abstract: Teachers' experiences supporting learners with Autism Spectrum Disorder (ASD) in mainstream classrooms vary widely yet commonly teachers face various difficulties in teaching these learners. Following the inclusive education policy as envisioned in Education White Paper 6, independent primary schools are increasingly enrolling learners with ASD posing challenges for mainstream teachers. Having learners with special educational needs in mainstream classrooms, changes classroom dynamics with added responsibility towards learners with ASD. Teachers often lack knowledge of how to support learners with ASD and systemic factors influence the teaching atmosphere. To address these issues, an interactive workshop will be designed, framed around Albert Bandura's social cognitive theory, which focuses on self-efficacy. In this study, teacher self-efficacy in teaching learners with ASD will be explored. The paradigmatic perspective of the study will be pragmatism, using an action research design with a qualitative approach to collecting data to explore the research question, of what content and learning activities should be facilitated in a teacher workshop. The action research will follow six phases. In phase one, the planning of the workshop content will be done based on a thorough literature review. Phase two will be purposive sampling to select the teachers participating in the workshop which will be conducted in a mainstream primary school. Qualifying teachers will be asked to complete a pre-workshop survey detailing their biographical profiles and experience with ASD learners. Phase three is taking action, which refers to conducting the workshop. Phase four will be the collection of data from the workshop role-plays, observations, and post-workshop survey. Thematic content analysis will be used to analyse the raw data sets. The study will contribute towards teachers' professional development with practical, clear guidelines for mainstream teachers in supporting learners with ASD in mainstream primary classrooms.

Keywords: Autism spectrum disorder, Teacher training, Special needs, Inclusive education, ASD-specific training, ASD guidelines

1. Introduction

In mainstream primary schools, teachers' experiences in instructing learners with Neurodevelopmental Disorders such as Autism Spectrum Disorder (ASD) are challenging and require varied learning support strategies based on the characteristics of the learners (Yoro et al., 2020). Teachers employ a broader range of didactic, teacher-centred and pedagogical, learner-centred approaches to address the diverse needs of learners with ASD, thus enabling each learner to achieve their maximum potential. This study explores the preparation of an in-service teacher training intervention workshop to support learners with ASD in mainstream primary schools.

2. Problem Statement

Teachers encountering learners with ASD in mainstream primary schools often confront challenges related to complex behaviour and emotional dissociation, such as tantrum-throwing and head-banging (Vorster, 2019). As per the Education White Paper 6 policy (DoE, 2001), envisaging quality education for all learners, there are increasing numbers of learners with ASD integrated into the educational system. Teachers must thus adapt their pedagogical approaches to accommodate learners with ASD (Beghin, 2021). Such pedagogical accommodations underscore the necessity of designing appropriate in-service teacher training interventions to address the inadequate application of inclusive educational policies. The integration of learners with ASD into mainstream primary schools in South Africa presents challenges exacerbated by wide-spread poverty (Sumbane et al., 2023). The challenge also arises from the insufficient training of teachers in addressing the complexities presented by learners with ASD in primary schools (Jaffal, 2022). Not all teachers possess the requisite training or resources to effectively instruct and accommodate learners with ASD in mainstream primary schools (Sumbane et al., 2023). The central research problem may be compounded by teachers' inadequate pre- and in-service training for managing learners with ASD in schools.

3. Research Questions

What in-service teacher training intervention can be designed to support learners with ASD in mainstream primary schools?

Sub-questions

- What content can be used in an in-service teacher training intervention for teachers who are teaching learners with ASD in mainstream primary schools?
- In what way does an in-service teacher training intervention for teachers who are teaching learners with ASD in mainstream primary schools contribute to the didactics of teachers?
- What guidelines can be developed through the in-service teacher training intervention for teachers who are teaching learners with ASD in mainstream primary schools?

4. Conceptual Framework

The conceptual framework for this study includes ASD, inclusive education, and Albert Bandura's self-efficacy theory. The intersection of these concepts presents a comprehensive foundation for designing an interactive teacher workshop for assisting ASD learners in inclusive environments. This study explores key aspects of ASD, including challenges in social communication, emotional disturbances, repetitive behaviours, and sensory sensitivities (Maenner et al., 2021). The fundamental principles of inclusive education explored in this study were participation, equal opportunity, adaptability, and individualised support (Inclusive Education Canada, 2020). Self-efficacy refers to the belief in one's ability to accomplish a task (Bandura, 1994). According to Albert Bandura's self-efficacy theory, four sources influence self-efficacy: observation, past experience, verbal persuasion, and emotional state (Bandura, 1994). To successfully support learners with ASD, teachers should apply inclusive education pedagogies in the classroom and enhance their self-efficacy and beliefs that they can indeed support learners with ASD. It is crucial to introduce inclusive education strategies in a classroom which support all learners, including those with ASD. Hence, it is vital to provide in-service teacher training interventions that focus on teachers supporting students with ASD more effectively. In-service teacher training is essential for improving teachers' didactic skills thus helping boost teachers' self-confidence when working with learners with ASD.

5. Literature Review

South Africa's educational system has undergone a significant transformation, transitioning from focusing on mainstream and special education to integrating full-service mainstream schools following the enactment of Education White Paper 6 in 2001 (Mphanda, 2018). This shift has resulted in a notable increase in the enrolment of learners with ASD in mainstream schools, despite potential practical challenges. There is also a shortage of Special Educational Needs (SEN) schools equipped to accommodate learners with ASD.

The Diagnostic and Statistical Manual of Mental Disorders, 5th Edition Text Revision (DSM-5-TR) groups difficulties with social interaction and communication into one dimension known as ASD (American Psychiatric Association [APA], 2022). A health professional registered with the Health and Professional Counsel of South Africa (HPCSA), such as a licenced paediatrician, educational psychologist, clinical psychologist, or psychiatrist, diagnoses ASD in South Africa (Autism South Africa, 2015). Five factors, discussed in greater depth in Chapter Two, are part of the DSM-5-TR diagnostic criteria for ASD, which a person must meet in order to get a clinical diagnosis (Maenner et al., 2021). The DSM-5-TR identifies two primary characteristics of ASD: 1) deficiencies in social relations and communication; and 2) restricted repetitive behaviours, interests, and activities (APA, 2022). The updated language, as it appears in the DSM-5-TR, states that to be diagnosed with ASD, 'all' of the characteristics, rather than 'any' of them, must be present (APA, 2022).

Teachers should receive enhanced training and collaborative support from the education system to facilitate inclusive education in their classrooms effectively (Fourie, 2018). However, many teachers are inadequately equipped with the essential training to implement the inclusive education principles outlined in Education White Paper 6 (Majoko & Phasha, 2018). Not all teachers are adequately prepared during their pre-service training to implement inclusive education in a classroom setting (Adewumi & Mosito, 2019). The academic success of learners with ASD is closely linked to their performance in well-structured learning environments, where they feel more at ease due to clear routines and predictable structure (Nicklason, 2023).

Some guidelines to support learners with ASD include Picture Enhanced Communication Systems (PECS), classroom environment management, and support strategies. PECS employs visual aids, such as picture cards

and communication books, which are advantageous for learners with ASD who experience difficulties processing auditory information (Santos et al., 2020). Carefully designed to maximise sensory stimulation, the sensory garden engages the senses of hearing, sight, touch, smell, and taste via landscape, colour, and texture, among other components (Nikraves & Tabaeian, 2016). Multi-sensory environments (MSEs), also called sensory rooms, are specialised areas used extensively in special education facilities to regulate learners' emotional and sensory responses (Unwin et al., 2021).

In the study exploring the preparation of a training workshop for teachers who are teaching learners with ASD, the background, conceptual framework, and literature review were conducted. The methodology has been planned but is yet to be performed.

6. Methodology

6.1 Paradigmatic Perspective

This study will utilise a pragmatic paradigm to investigate the design an interactive in-service teacher training intervention focusing on support for learners with ASD in mainstream primary schools. Pragmatic research aims to identify inconsistencies in the inclusive education system and create solutions for them (Vasianovych et al., 2020).

6.2 Research Design

The study employs action research with a qualitative approach to investigate the research inquiries. The integrated method of participatory action research and learning (PALAR) amalgamates participatory action research with lifelong action learning, recognising PALAR as a theory of knowledge, a philosophy, and a strategy for facilitating community interaction (Zuber-Skerritte, 2015).

6.2.1 Phase one, planning action research

During the planning phase, it was imperative to review pertinent literature to gather information relevant to the design of the professional development in-service workshop. An action plan was developed, and the pre-workshop survey was designed to gather biographical information and participants' experiences with ASD learners.

6.2.2 Phase two, sample and sampling

Participants will be purposively sampled to. The criterion will be teachers instructing learners with ASD in mainstream primary schools.

6.2.3 Phase three, taking action

The workshop will be crafted after thoroughly reviewing the literature, and a participant manual will be developed. Designed to span a single day, the workshop will last 4-hours and be conducted by a skilled facilitator of adult professional training. Participants will engage in role-play activities to practice didactic skills and articulate their experiences teaching learners with ASD. The participants will participate in a role-play activity, expressing their experiences of teaching learners with ASD based on a scenario given to them. Following the role-play, the participants will be introduced to a discussion of support strategies for teaching learners with ASD. A follow-up role-play activity was after the discussion using the support strategies provided. An independent researcher will conduct ongoing observations according to a detailed schedule throughout the workshop.

6.2.4 Phase four, data collection

Data will be collected through a pre-workshop survey, role-play simulations, observations, and a post-workshop survey. The surveys will be distributed via Qualtrics and emailed to participants, containing open-ended questions. Role-play activities will be integrated into the workshop. Observation will continue throughout the workshop, with field notes as the primary observational data collection method. An online post-workshop survey, emailed to participants, will be conducted for participants to evaluate the workshop content and didactics.

6.2.5 Phase five, data analysis

Thematic content analysis will be used to code the raw data sets derived from the previous phase into meaningful themes using ATLAS-ti.

7. Contributions

The theoretical contribution is to the limited research that supports teachers who are teaching learners with ASD in South Africa. To support teachers who are teaching learners with ASD in mainstream schools and contribute to their understanding of literature applicable to the context, The practical contribution is to develop guidelines to support teachers when teaching learners with ASD. The workshop will enhance teachers' didactic skills in supporting the challenging behaviours and emotional dysregulation which ASD presents. The envisaged research output can be presented at conferences or schools in cooperation with the DBE to train teachers. The methodological contribution of the study is the use of Action research as research methodology. Action research in education has increased over the past few years, but it is still not commonly used methodology. Using role-play as a data collection method will provide a novel methodological contribution.

8. Discussion of the Progress

At this stage of the work-in-progress study, I provided an introduction and background, rationale, problem statement, research questions, objectives, and relevant concepts; the second chapter I completed aims to establish the conceptual framework, including my model based on personal experience and the theoretical orientation of others that shapes this study. In chapter two, I complete the study's conceptual framework, encompassing ASD, inclusive education, and Albert Bandura's self-efficacy theory, providing a comprehensive approach to supporting learners with ASD in inclusive environments. I have also concluded chapter three, which provides an overview of related and existing research on the diagnostic criteria of ASD, inclusive educational policies, the South African school system, teachers who are teaching learners with ASD, guidelines to support learners with ASD, and gaps in the literature. The guidelines retrieved from the literature were used to develop the workshop. I have developed and planned the workshop but must still apply it.

Furthermore, I have planned the fourth chapter of the study, which includes the methodology. The planned methodology for collecting the data includes a pragmatic paradigmatic perspective and an action research design. Furthermore, the planned methodology includes planning the action research, which includes various steps, taking action, which will include the workshop, purposive sampling to identify the teachers who will participate in the workshop, the data collection methods, including a pre-workshop survey, role-play, observation, and post-workshop survey, and thematic content analysis to analyse the data. The planned methodology also includes trustworthiness and ethical considerations that will be considered during the action research.

I await ethical clearance and acceptance of the study from the Faculty of Higher Degrees at the University of Johannesburg. Once the study has been accepted, I will contact relevant schools to request their consent to participate by the end of 2024. After receiving informed consent from the participating schools and participants, I will start collecting the data using a pre-workshop survey, role-play, observation, and post-workshop survey. At the end of 2024 or the beginning of 2025, I will apply thematic content analysis to analyse the data. Once that has been completed, I will write up the findings in the fifth chapter and discuss the findings in the sixth chapter of the study. The final chapter will provide a conclusion for the research report. The chapter will include the study's contributions, strengths, and limitations. Thereafter, recommendations for further studies will be made based on the results of this study.

9. Conclusion

There is a lack of guidelines for teachers teaching learners with ASD in the South African context. The envisaged research outputs are developing guidelines to support teachers when teaching learners with ASD in mainstream primary schools. These guidelines will contribute to the pedagogical and didactical approaches of the teacher. This will be specific to the South African context. The envisaged research output is to explore an in-service teacher training intervention that can be presented at conferences or schools in cooperation with the DBE to train teachers. The research results can contribute to developing teachers' skills in teaching learners with ASD in mainstream primary schools. This workshop, with guidelines to train in-service teachers when teaching learners with ASD in mainstream primary schools, can be presented nationwide. The study aims to equip teachers with sufficient skills to support learners with ASD in mainstream primary school classrooms. It will ensure they are trained and skilled to implement inclusive education in mainstream primary schools. The study will address the negative experiences of teachers when teaching learners with ASD with the necessary guidelines. The study will address the identified gap in supporting learners with ASD in mainstream primary schools.

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