

## **Teachers' experiences of a differentiated curriculum for children with autism spectrum disorder**

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### **Abstract**

*This study explored teachers' experiences in implementing a differentiated curriculum for children with severe intellectual disorders, including learners with autism spectrum disorder. The South African Differentiated Curriculum and Assessment Policy Statement (DCAPS) (2018) is a pilot study implemented by the Department of Basic Education (DBE) to adapt the existing Curriculum and Assessment Policy Statement (CAPS) to accommodate learners with high support needs to acquire skills and independence. This research followed a qualitative approach with a phenomenological multiple case study design. Eight teachers from four different schools in the Gauteng province participated. Data were collected through semi-structured interviews, document analysis, observations and field notes. In the interviews, teachers shared their thoughts, feelings and experiences about using the DCAPS (2018). The findings revealed the following major themes: (1) The teachers did not entirely understand the rationale behind the DCAPS (2018) curriculum for children with autism (2) teachers found the implementation of the differentiated curriculum difficult (3) teachers lacked sufficient training on the DCAPS (2018) curriculum. It was recommended that the Department of Basic Education (DBE) uses a professional developmental model that includes continuous monitoring and support. The study provides a stepping-stone for further research on the DCAPS (2018) curriculum for children with autism in South Africa.*

**Keywords:** Autism spectrum disorder, differentiated curriculum, disability, support for learners.

### **Introduction**

The new democratic dispensation in South Africa in 1994 provided a means to transform education (Legodi, 2001). It was an opportunity to move a deeply segregated and fragmented education system into one integrated system (Gumede & Biyase, 2016). It aimed to reflect

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democracy, equity and social justice as outlined in the National Constitution (South African Constitutional Assembly, 1996). Educational reform attempted to redress former inequalities, unify standards and ensure equal opportunities for all learners (Hayes, O'Toole, & Halpenny, 2017). However, the curriculum of the time did not cater for learners with severe intellectual disabilities. The Differentiated Curriculum and Assessment Policy Statement (DCAPS) (2018) was therefore introduced. Before the introduction of the DCAPS (2018) curriculum for children with severe intellectual disabilities, special schools used the National Curriculum Statement's (NCS) Curriculum and Assessment Policy Statement (CAPS) (DoE, 2011).

The South African National Association for Specialised Education (SANASE) linked the National Curriculum Statement's (NCS) Curriculum and Assessment Policy Statement (CAPS) (DBE, 2011) with the teaching programme for special schools. Research (Ameen, 2020) showed that some teachers did not fully understand that SANASE was a working document and not a curriculum. The DCAPS (2018) was designed to strengthen curriculum practices in the classroom. Some of the practices include sequencing and coverage of essential content with a structured syllabus and assessment (Ismajli & Imami-Morina, 2018). The DCAPS (2018) encourages practical subjects which enhance the learners' self confidence in life skills, preventing them from becoming frustrated and dropping out of school early. The additional advantage was that it allowed learners to master specific skills and content over a three-year phase.

The DCAPS (2018) is a structured curriculum and covers three formal subjects, Mathematics, Literacy and Life Skills. In the senior phase, learners may choose three of fifteen practical subjects to specialise in. An example of a practical subject could be gardening, hair dressing, hospitality or office filing. These practical subjects enable learners to master a skill independently to achieve the learning outcomes of the curriculum. Allowing learners the option of practical subjects of their interest, provides many children with an education to help them become independent and enter the labour market where possible and contribute to the economy (Herbst & Mills, 2012).

The DCAPS (2018) curriculum compliments the Screening, Identification, Assessment and Support (SIAS, 2014) policy. The aim of the SIAS (2014) is to provide learners out of school and learners with special educational needs with the basic right to education. It is focussed to manage and support teaching and learning within the framework of the National

Curriculum Statement Grades R-12 for learners experiencing learning barriers including learners on the autism spectrum.

Two policy documents address the rationale of the DCAPS (2018). The first is the White Paper 1 on Education and Training (March 1995, p.21) that states: “Education and training are basic human rights. The state has an obligation to protect and advance these rights, so that all citizens, irrespective of race, class, gender, creed or age, have the opportunity to develop their capacities and potential, and make their full contribution to society”. In addition to the statement in White Paper 1, section 5 of the South African Schools Act, 1996 states: “A public school must admit learners and serve their educational requirements without unfairly discriminating in any way”. This curriculum further contributes to the realisation of two important conventions ratified by the South African Government in the new dispensation after 1994. The first was the Convention of the Rights of the Child (1989) that protects the rights of every child with severe intellectual disabilities to safety. The second one, the Convention on the Rights of Persons with Disabilities (2006), promotes dignity, self-reliance and the ability to participate in the community. This convention emphasises that children with disabilities must not be excluded from the general education system based on disability. Lastly, the South African Constitution (1996) guarantees the right to education of all children of school-going age. It is important that a concerted effort is made in compliance with the judgement in South Africa 2011 (5) SA 87 (WCC), to ensure that all learners with disabilities are in school and can access the curriculum (Ngwena & Pretorius, 2012).

### **Literature review**

One of the fundamental rights of every child is to access the curriculum (Marisha, Marisha, & Maholo, 2015). It is the social and professional responsibility of basic education and teachers to ensure this right is guaranteed (UNESCO, 2004). This curriculum should not only be accessible, but the differentiation of the curriculum should accommodate all learners. Curriculum differentiation is a strategy that involves modification, adaptation and extension of methodologies, instructional and assessment strategies and curriculum content (Marisha, Marisha, & Maholo, 2015). The William and Flora Hewlett Foundation (2013) refers to a differentiated curriculum as an opportunity for children to experience deep learning and understanding. It is further argued that the differentiated curriculum allows teachers the time and space to accommodate the individual and diverse needs of learners in the class (Ansah, 2017). This accommodation provides the teacher with the opportunity to identify individual learning strengths, needs and interests when adapting lessons using different methods and

strategies in teaching (Kurth & Keegan, 2014). When learners' individual needs are addressed there is self-confidence, motivation and willingness to learn (Singal, 2018). Learners feel less isolated from teaching and learning.

The DCAPS (2018) was designed to accommodate the curriculum needs of all learners including learners on the autism spectrum. It allows the teachers to be flexible and for learners to work at their own pace (Lombardo, 2015). Autism is defined as an impairment in social communication, with restricted and repetitive behaviours (American Psychiatric Association [APA], 2013). In the different age groups of learners with autism non-specific aspects such as extreme temperaments, social engagement and eating and sleeping disorders could add to existing educational challenges (Muskens, Velders & Staal, 2017). It is argued by many professionals, teachers and parents that autism is a unique disability that requires separate and distinctive specialised intervention methods, curricula, and programmes (Partlo, 2017). A differentiated curriculum like the DCAPS (2018) allows every aspect of the curriculum to be modified to accommodate the diverse characteristics of learners, including learners with autism.

### **Methodology**

The study used a qualitative research approach which adopted an interpretive paradigm. The multiple case study design allowed for the understanding of the social and psychological phenomena from the perspectives of the people involved. The aim in the study was to explore the teachers' experiences of implementing the differentiated curriculum for children with autism spectrum disorder.

### **Sampling**

Eight participants from four schools across the Gauteng province provided rich data to fulfil the purpose of the research questions. Seven participants were female and one was male. They qualified as teachers either at a university or a teaching college. Most of the participants worked at mainstream schools before being employed as teachers at a special school. Seven of the participants had never taught children with autism before.

### **Ethical procedures**

To secure the participants for the study, the Ethics Committee of the Faculty of Education at the University of Johannesburg and the Gauteng Department of Education provided permission to conduct the research. The ethical clearance number was Sem 12019-006 quoted on all the

consent forms as an indication that the research had been cleared by the ethics committee. The teachers signed informed consent forms to participate in the research. Participants were informed that the study was confidential and that they could withdraw from the research at any time. Consent forms were given to the school principal as part of ethical clearance. Anonymity and confidentiality of teachers were ensured by naming the four schools A, B, C and D, and teachers were given numbers.

### **Data collection**

Data collection involved individual interviews, document analysis, observations and field notes. The open-ended questions allowed the participants to respond in their own words (Barrett & Twycross, 2018). The data was collected from eight teachers from four LSEN schools across Gauteng. Teachers were made aware that the information would be audio-recorded as well as the transcript and the information will be used for research purposes. The researcher requested permission to take notes since the interviews were confidential. The interviews were conducted in the classrooms of the teachers in a natural environment that they were familiar with. The research participants were thus able to share information that was honest, accurate, and reflected their experience authentically. Document analysis was also used to collect data. The lesson plans, work schedules and assessment plans required by the DCAPS (2018) curriculum for the three formal subjects and selection of practical subjects were collected from the four schools. Observations in schools took place once a week in the classrooms for an hour. The observations and field notes gave me the opportunity to see the teachers using a differentiated curriculum in practice. Part of the fieldwork in the data collection entailed the written field notes.

We used inductive thematic analysis as described by Percy, Kostere and Kostere (2015). All the interviews were carefully read, and each participant's response was colour coded. As data emerged, similar phrases were marked to identify patterns. These patterns resulted in three themes. 1) The teachers did not entirely understand the rationale behind the DCAPS (2018) curriculum for children with autism, (2) teachers found the implementation of the curriculum difficult (3) teachers lacked appropriate training on the DCAPS (2018) curriculum.

**Theme 1: The teachers did not entirely understand the rationale behind the DCAPS (2018) curriculum for children with autism**

The first finding revealed that none of the eight participants from the four schools had fully understood the rationale of the DCAPS (2018) for children with autism. At least six participants from the four schools referred to the SANASE working document as a curriculum of choice in the interviews. This clearly showed in that some participants did not understand the difference between a curriculum and a working document. However, some participants in School A and B showed that they grasped certain aspects of the new curriculum being piloted.

Two of the eight participants indicated that they felt that the DCAPS (2018) curriculum did not meet the requirements for children with autism. One of the participants said: *“When it comes to a curriculum, it’s very difficult, because even now, we don’t have a curriculum to follow. We are still struggling; none of autism schools have got a specific curriculum to follow.”*

Six participants from the three schools argued that the DCAPS (2018) curriculum was still too complex for children with autism. The participants indicated that learning areas like Mathematics were too abstract or advanced for learners who have high support needs. It was evident that teachers did not understand the rationale and importance of having a structured curriculum for learners with severe intellectual disabilities. Also, that a differentiated curriculum allows learners a maximum of three years in a phase to master content, concepts and skills that would usually be dealt with in one year.

*Some activities are too complex, like they need more abstract thinking, which is a skill that our children don’t have. If it’s abstract, then it doesn’t work for us. Some children cannot do the Mathematics that is expected of them from the curriculum.*

Participants from Schools A and B, who each had more than ten years of experience teaching children with autism, understood the rationale of allowing learners time to master content, concepts and skills over a three-year phase. But participant 1, School C, indicated the complexities of the DCAPS (2018) curriculum.

*So, it means this curriculum is going to change; and the new curriculum, I assume we are going to implement it. It says 80 % should be practical, 20% should be theory, but as of now, I can say the DCAPS is almost 95% theory because we are always seated in class and the practical is once in a while; maybe you may go to the play centre.*

Across all four schools, participants felt positive about 80% of the subject coverage being practical in nature. All eight teachers agreed that a structured curriculum is what special schools needed for children with autism but found the implementation of three formal subjects difficult to comprehend. Participant 2 in School C shared the following.

*Yes! We are in the process of implementing it; it's still in trial and error. We are planning – we already started with the planning. Somewhere, somehow, we find challenges and then we trying to jot it down.*

In School C, participant 1 stated that because children with autism are unpredictable expressing the scepticism about teaching children with autism three formal subjects and at least three practical subjects. This she indicated would be difficult as it is too much work to cover for children with autism. The participant indicated that the DCAPS (2018) curriculum expected specific subject content to be covered but failed to address how it needs to be done with different disabilities and in this case children with autism and behaviour challenges.

*You know challenges can be there because our children are not predictable; you cannot predict how they will behave or what strategy to use. You will not know how they will be at that time. I don't think the curriculum will suite them.*

School C, participant 2 indicated that although the curriculum is differentiated there is need for further differentiation to meet the learners' individual needs. This could also be addressed by using the SIAS (2014) policy with the DCAPS (2018) curriculum. The participant explained it in this way:

*Curriculum differentiation is to teach in a way that suits the level of needs for the learner. Every child is different, every child has different needs, every child has a different learning style, so I consider all those factors when I offer my teaching and then I adapt the time, I adapt the method, that is what differentiation is . . .*

Participants from all four schools had a clear understanding of the subject annual teaching plans and assessment standards required in the DCAPS (2018) curriculum. This was evident from observation in the classroom and in the participants' teaching files.

In both schools, participants from schools C and D indicated that the Individual Support Plans (ISP), as part of the SIAS process, would assist them to support children with autism at different ages in the classroom.

*The SIAS policy together with the DCAPS, allows for children to do certain activities but also allows for an autistic child to complete activities over three years or four years behind. So now, with an autism specific, the curriculum demands for children to be seen as individuals with specific needs.*

All eight participants in the four schools said that the DCAPS (2018) curriculum had come at the right time to provide structure for teaching children with autism in the classroom. Another concern of all participants was that previously, learners were grouped according to levels of support needs. The DCAPS (2018) curriculum groups learners according to ages. Participant 2 from school A argued that grouping children according to age does not consider their different levels of support.

*They are all going to be the same age, whether low functioning [or not], all mixed in a class. That is when I find it difficult because the behaviours also, like a low functioning child and a high functioning child, it becomes very difficult for your planning, firstly, your lesson plans – maybe you have to do three lesson plans because that child is extremely low and this one is high, whilst another is in-between.*

The participants understood that the original curriculum needed to be further adapted if necessary, as there are several challenges to consider when teaching children with severe disabilities (Rogers and Johnson, 2018). As in the case of learners with autism, the curriculum should address the communicative, social, and behavioural needs of learners. There are no single method, strategy or programme that will fit all learners or all teachers (Laurillard, 2013). It is up to individual teachers to decide how to use the curriculum as a guide to support children with severed intellectual disabilities. There is thus a clear indication that some of the teachers did not understand the DCAPS (2018) curriculum and how it was going to meet the diverse needs of children with autism. There was a lack of understanding of further differentiation to suit the learners' individual needs. It is evident that teachers will continue experiencing dissatisfaction within an education system who fails to adequately support them but expects delivery (Abegglen and Hessels, 2018).

## **Theme 2: Teachers found the implementation of the curriculum difficult**

The second finding related to the way the teachers were implementing the DCAPS (2018) curriculum in the classroom. Two of the participants, from school C and school D, indicated that even though it is possible to implement some activities without difficulty, they faced inevitable challenges as they did not know exactly how to incorporate the three formal subjects

into the lessons as learners with autism learn differently. Participant 1 from School B referred to a few times to the following programme.

*Children with autism learn differently, three subjects...they learn visually. If you say a learner should be able to count one side; a learner should be able to read continuous words, but if I look at the way they talk about DCAPS, it's broad and complex; they have not given us direction.*

Despite the above statement, participants across the schools indicated the significance of the curriculum and more practical activities and subjects at schools. Schools piloting the DCAPS (2018) curriculum have the opportunity to choose between three and four skills subjects out of fifteen skills subjects. One of the skill subjects School C offers is vegetable gardening. Learners are given the opportunity to grow vegetables. The topic covered in the life skills subject was vegetables and healthy eating.

*The vegetable that are grown in the garden. Learners learn about colours of vegetables and healthy eating.*

Participants from schools A and B, established autism schools, indicated that they thought it is possible to implement some activities without problems. However, inevitable challenges would be faced in adapting the existing curriculums they previously used to the DCAPS (2018) and the SANASE programme. School A, Participant 1 indicated that taking learners to the shop to buy grocery items are challenging for some children.

*Not all our children can go shopping with many people around, the noise is too much.*

A participant from School C appreciated the idea of a more structured curriculum specifically for learners with autism. The participant indicated that following the Department's differentiated curriculum and assessment policy statement for each subject was important per term. School A, Participant 2 added that they could not say that the DCAPS (2018) curriculum did not work before having tried it.

*I must try it to get to choose what my autistic children in the class can or can't do, and then I can be able to criticize it. That is why I implemented it fully this year for term one. I already know what strategies worked with DCAPS and what didn't work.*

Participants from Schools A and B who had years of experience teaching children with autism also expressed concerns about the number of recommended subjects to be taught in the DCAPS (2018). They added that children with autism learn and understand work differently from their

peers in mainstream classes. School B, Participant 1 elaborated on the academic differences of children in the mainstream compared to that of children who are autistic.

*So whereas these other curricula expect a child who is probably in grade one to be able to do, like you are scoring them, A, B, C and D, with an autistic child, they might be three years or four years behind. So now, with an autism-specific, the curriculum would be less demanding and more individualised.*

As opposed to the current situation, DCAPS (2018) learners according to their ages. School B, Participant 2, explained this as follows:

*What I learnt, it's going to be grading kids. So far, at our school, there are no grades, but with DCAPS what I have learnt is that kids are graded from grade R up to grade 5 for learners with disabilities, and they are grouped according to age. That's according to policy.*

The lack of how to implement the DCAPS (2018) in the finding of Theme 2 has resulted in teachers being unsure how further differentiate it with children with autism. They have not been sufficiently trained on it. There is a need for a clearer understanding between policy makers and teacher practice is important (Lang, Schneider, Kett, Cole & Groce, 2019). It was also important to see how teachers with more experience in teaching children with autism where more confident to implement the new differentiated curriculum. Teachers are still struggling with how to manage the complexities of the disorder. In terms of DCAPS (2018), participants from all four schools indicated that teachers need to be creative if they wanted to implement it. They felt that the knowledge they have is general and not specific. During the visits by the researcher basic resources such as picture symbols, Makaton chats building blocks were being used. In the four schools, teachers explained the significance of these resources.

The challenge for them was the absence of any workbooks for teachers' and learners to facilitate the implementation of the DCAPS (2018). Teachers are currently using the CAPS workbooks whereby lesson plans per grade are being differentiated. The CAPS policy document for the Foundation Phase (South Africa 2011b) makes provision for meaningful tasks that teachers could use to support teaching in the policy document. During my observations in both School C and D some teachers were innovative and created their own tasks in order to captivate the learners' interest in the lessons in the absence of the workbooks from the Department of Basic Education (DBE). Due to the lack of sufficient training on the DCAPS (2018) teachers are overwhelmed in their classrooms. The completion of the workbooks will

further encourage teachers to implement the DCAPS (2018) curriculum. To address this finding effective and efficient monitoring of the implementation of the DCAPS (2018) by the Department of Basic Education (DBE) is necessary.

### **Theme 3: Teachers' lacked appropriate training on the DCAPS (2018) curriculum**

The third theme relates to the training of the DCAPS (2018) curriculum, which was conducted by the Gauteng Department of Education in June 2019. Teachers for each phase attended a five-day once-off workshop. The workshop focused on the DCAPS (2018) piloted curriculum content and fewer on strategies for assessing and teaching specific subjects and lessons. The workshop focused on disabilities in general and not specifically on autism. Most participants expressed a sense of disaffection with the training they received from the facilitators during the five-day workshop. Such disaffection was due to a lack of specialised facilitators who knew little about the challenges of autism.

Participants from four schools who worked at schools for children with autism, were sceptical about the success of the workshops. Teachers believe that learners with autism have deficits in communication, social and behaviour and that DCAPS (2018) does not fully accommodate these challenges in the timeframe stipulated to cover the curriculum. School D, Participant 2 is still under the impression that there should be a specific curriculum for children with autism. Participant 2 from School D, had the following to say

*I think being a teacher, one must think out of the box. I don't think DCAPS training was very useful for us, but I think I attended the literacy part of it which was talking to everybody, not specifically for children with autism."*

Teachers found it difficult to make sense of the DCAPS (2018) in their classrooms. They only understood it better after training in smaller groups and being given the opportunity to share information on their experiences in the different autism schools. Six participants indicated that they had no choice but to attend the training for the sake of representing the school after being nominated for training. One of the participants from school C expressed the concern that the training was for learners with intellectual disabilities generally, not specifically for teachers who teach children with autism. Training teachers from the mainstream schools are very different to training teachers in special schools. Research indicates that various factors contribute to the success of teaching children with various disabilities. These include the age of the teacher, gender, type of training and self-efficacy (Vaz et al. 2015).

*Mostly they are just giving us what to do mainstream wise or other disabilities but when I am an autistic teacher (sic). And when questions are asked, they don't come back to me. So, I go because I have to represent the school and because I need to help the learners.*

Although participants from all four schools elaborated on the DCAPS (2018) curriculum, they failed to elaborate on the importance of SIAS (2014). The two documents provide the necessary support for children with severe intellectual disorders (SID) and complement each other. The training clearly did not explain clearly the policy document of the SIAS and how that compliments the DCAPS (2018) and how it would support the complex challenges with children with autism. The literature indicates there is no single method, strategy or programme that will fit all learners or teachers (Laurillard, 2013).

A participant from School D indicated that training on the curriculum needed to be practically demonstrated.

*The training needed to be practical so that we know what to do with children with autism in the class.*

Six of the eight participants from schools A, B, C and D emphasised the importance of specialists or non-profit organisations (NGO) to do the training. These NGOs, like Autism South Africa, were perceived as experts in the field of autism and provide autism specific training with practical examples as opposed to the Department of Basic Education (DBE). The facilitators from the DBE did not have the knowledge on how to further differentiate the DCAPS(2018). DBE also failed to include the teachers to assist them in the understanding of children with autism and how to support children and continued to be struggled to facilitate the material. There was little attempt time to clarify or go into depth. Facilitators announced that they were going to have a second training later in the year.

The findings of this study supported the idea that facilitators from the Department of Basic Education (DBE) generally update their knowledge and skills and work closely with organisations which have experience on autism. Latest research suggests that teacher colleges and universities worldwide are not preparing teachers adequately to teach children with disabilities (Sokal & Sharma 2017; Van Mieghem, Verschueren, Petry, & Struyf, 2018). Participant 2 from School B commented on the need for more targeted training as some teachers come from mainstream schools with limited or no experience of children with disabilities. Participant 2 further emphasised the need for universities to include modules for students on

various disabilities in the courses, and more specifically, on autism. The courses should include studies regarding policies and curricula at schools. Participant 2 added:

*Like for now I think there are some teachers who have never done special needs education, so it's better for them to do inclusive education. At least they will have ideas on how to help learners with disabilities.*

Participants also highlighted the need to have teachers receive advanced training to enable them to support the assessors and facilitators who are training the teachers. Teachers need assessor training to enable them to understand the autism specific curriculum, and how best to implement the differentiated curriculum for optimum results in teaching learners with autism. For children to reach their full potential, teachers need the capacity and training, skills, and the necessary resources (Carew, Deluca, Groce, & Kett, 2018).

It is evident that pre-service training at universities are needed. Several suggestions have been made about positive collaborative partnerships with non-governmental organisations (NGOs) on teaching support for autism spectrum disorder and other neurodevelopmental disorders to ensure the successful delivery of the DCAPS (2018).

### **Discussion of findings**

This study examined the teachers' experiences of the DCAPS (2018) curriculum to support children with autism. The findings of this study are aligned with previous research conducted by Saim and Al-Natour (2016) who explored the teachers experiences using a differentiated curriculum for children with disabilities. According to Richards and Rodgers (2014), the availability and provision of adequate support and resources determine the teachers' attitudes. Currently the teachers' following the DCAPS (2018) curriculum feel that they are not adequately supported by specialists in the field of autism. They also do not have the required workbooks for children with autism needed as they are still being written. It was also established that some teachers did not have the expertise and skills as they were not really trained sufficiently to implement the practical part of the DCAPS (2018) curriculum for children with autism. This made it difficult for them to understand why it was necessary to include three formal subjects and choose from 15 practical subjects. It is suggested by Laurillard (2013) that teachers should be empowered through training to feel confident in their teaching.

## **Conclusion**

The principle to further differentiate the DCAPS (2018) is a deliberate act to modify instructions or assignment to meet the developmental level and skills of children (Abodey & Ansah, 2017). The DCAPS (2018) allows for further differentiation to provide children the opportunity in a unique way that suits their individual needs. It allows teachers flexibility and creativity with children (Lombardo, 2015). It further allows children to work at their own pace. Despite knowing this, teachers are still finding it difficult to implement the DCAPS (2018) curriculum with children with severe intellectual disabilities and having high support needs. Against the background of inclusive education, the study stresses the importance of introducing a piloted DCAPS (2018) for children who have been diagnosed as severely intellectually disabled including children with autism. Such differentiation would consider applying subject-specific differentiation strategies. It acknowledges that different learners learn differently and have different needs. As much as research provides evidence of the benefit of a differentiation curriculum like the DCAPS (2018) one cannot overlook the absence of sufficient and appropriate skills and on-going training for teachers in schools for autism. Well-structured continuing professional development programmes for teachers in schools for autism are needed. The process of training should have an element of monitoring and support to ensure the teacher's experiences are translated into improved classroom practices which should include curriculum advisors and inclusion specialists. Based on the unique characteristics of children with autism, differentiating the curriculum has enormous benefits to children with autism.

## **Recommendation**

As the DCAPS (2018) in South Africa should consider the teachers' challenges and consider ways to improve it by theoretical and practical training to all teachers supporting children with autism. To achieve this, it needs to consider shifting its attention from the use of a workshop as the main professional development model for training teachers to continuous professional development, tailored to the teachers' needs and to accommodate different disabilities. This would ensure that training is aligned with practice to improve achievement in each subject area required by the DCAPS (2018). Future research could focus on the identified gaps of the implementation of the DCAPS (2018) for children with autism. Such research holds the potential to build onto the already existing body of knowledge of autism and provide an evidence-based framework to guide curriculum and policies.

## REFERENCES

- Abegglen, H.J., & Hessels, M.G. (2018). “Measures of individual, collaborative and environmental characteristics predict swiss school principals’, teachers’ and student teachers’ attitudes towards inclusive education.” *Psychoeducational Assessment, Intervention and Rehabilitation* 1 (1), 1–24.
- Abodey, E., & Ansah, J.A. (2017) Differentiated curriculum: The perspectives of the special educationist. *Journal of Research and Social Sciences*,7 (21), 26–33.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Association.
- Barrett, D., & Twycross, A. M. (2018). Data collection in qualitative research. *Evidence-Based Nursing*, 21(3), 63–4.
- Carew, M., Deluca, M., Groce, N., Fwaga, S., & Kett, M. (2020). The impact of an inclusive education intervention on learning outcomes for girls with disabilities within a resource-poor setting. *African Journal of Disability*, 9(1), 1–8.
- Creswell, J. W., & Báez, J. C. (2020). *30 essential skills for the qualitative researcher*. London: Sage Publications.
- Department of Basic Education (DBE). (2011). *Curriculum and assessment policy statement (CAPS). Grades 7–9. Natural Sciences*. Pretoria: Department of Basic Education.
- Department of Education (DoE). (2014). *Draft Policy on Screening, Identification, Assessment and Support (SIAS)*. Pretoria. South Africa: Government Printers.
- Department of Education (DoE). (2018). *Differentiated National Curriculum on Assessment Policy Statement (DCAPS)*. Pretoria: Government Printers.
- Flick, U. (Ed.). (2017). *The Sage handbook of qualitative data collection*. London: Sage.
- Gumede, V., & Biyase, M. (2016). Educational reforms and curriculum transformation in post-apartheid South Africa. *Environmental Economics*, (7, Iss. 2), 69–76.
- Hayes, N., O’Toole, L., & Halpenny, A. M. (2017). *Introducing Bronfenbrenner: A guide for practitioners and students in early years education*. London, UK:Routledge.
- Herbst, J., & Mills, G. (2012). *Africa’s Third Liberation-the New Search for Prosperity and Growth*. London, UK:Penguin Books.

- Ismajli, H., & Imami-Morina, I. (2018). Differentiated instruction: understanding and applying interactive strategies to meet the needs of all the students. *International Journal of Instruction*, 11(3), 207–218.
- Kozleski, E. B. (2017). The uses of qualitative research: Powerful methods to inform evidence-based practice in education. *Research and Practice for Persons with Severe Disabilities*, 42(1), 19–32.
- Kurth, J. A., & Keegan, L. (2014). Development and use of curricular adaptations for students receiving special education services. *The Journal of Special Education*, 48(3), 191–203.
- Lang, R., Schneider, M., Kett, M., Cole, E., & Groce, N. (2019). Policy development: An analysis of disability inclusion in a selection of African Union policies. *Development Policy Review*, 37(2), 155–175.
- Laurillard, D. (2013). *Rethinking university teaching: A conversational framework for the effective use of learning technologies* London: Routledge.
- Logodi, M. S., (2001). *The transformation of education in South Africa since 1994. A historical-educational survey and evaluation*. Pretoria: University of South Africa.
- Lombardo, C. (2015). Pros and cons of differentiated instruction. *Journal of Postsecondary Education and Disability*, 28(4), 447–460.
- MacKay, D. (2007). The United Nations convention on the rights of persons with disabilities. *Syracuse Journal of International Law and Commerce*, 34(2), 323–332.
- Muskens, J. B., Velders, F.P., & Staal, W.G. Medical comorbidities in children and adolescents with autism spectrum disorders and attention deficit hyperactivity disorders: a systematic review. (2017). *European Child and Adolescent Psychiatry*, (26) 1093–1103
- Marishane, M. A., Marishane, R. N., & Mahlo, F. D. (2015). Teacher capacity for curriculum differentiation in teaching foundation phase mathematics. *International Journal of Educational Sciences*, 11(3), 253–262.
- Pacho, T. (2015). Exploring participants' experiences using case study. *International Journal of Humanities and Social Science*, 5(4), 44–53.
- Partlo, S. (2018). *Meeting Learning Needs of Children with Autism Spectrum Disorder in Elementary Education*. (Doctoral Dissertation, Walden University).

- Percy, W., Kostere, K., & Kostere, S. (2015). Generic qualitative research in psychology. *The Qualitative Report*, 20(2), 76–85.
- Republic of South Africa 1996. *The South African Schools Act, Act 84 of 1996*. Pretoria: Government Printer.
- Republic of South Africa 1996. *Constitution of the Republic of South Africa, Act 108 of 1996*. Pretoria: Government Printer.
- Richards, J. C., & Rodgers, T. S. (2014). *Approaches and methods in language teaching*. Cambridge, UK: Cambridge University Press.
- Rogers, W., & Johnson, N. (2018). Strategies to include students with severe/multiple disabilities within the general education classroom. *Physical Disabilities: Education and Related Services*, 32(2).
- Siam, K. & Al-Natou, M. (2016). *Teachers' differentiated instruction practices and implementation challenges for learning disabilities in Jordan*. Canada: Published by Canadian Centre of Science and Education.
- Singal, N., Lynch, P., & Johansson, S. T. (Eds.). (2018). *Education and disability in the global South: New Perspectives from Africa and Asia*. Bloomsbury Publishing.
- Sokal, L., and U. Sharma. 2017. "Do I really need a course to learn to teach students with disabilities? I've been doing it for years." *Canadian Journal of Education/Revue canadienne de l'éducation* 40 (4), 739–760.
- The William and Flora Hewlett Foundation. (2015, July 19). *What is deeper learning?* Retrieved from <http://www.hewlett.org/programs/education/deeper-learning/what-deeper-learning>
- UNESCO 2004. *Changing teaching practices: Using curriculum differentiation to respond to students' diversity*. Paris: UNESCO.
- Vaz, S., N. Wilson, M. Falkmer, A. Sim, M. Scott, R. Cordier, ... T. Falkmer. (2015). "Factors associated with primary school teachers' attitudes towards the inclusion of students with disabilities." *PloS One* 10 (8), e0137002.
- Van Mieghem, A., Verschueren, K., Petry, K., & Struyf, E (2018). "An analysis of research on inclusive education: A systematic search and meta review." *International Journal of Inclusive Education*, 1–15.