



13. “I cannot do it alone”: Teachers as change agents for inclusive education

Vibeke Vågenes, Kari Ludvigsen, and Cosmas Mnyanyi

Abstract This is a study of three Tanzanian teachers’ efforts to implement new knowledge about vision and learning in their schools. We ask if capacity building supports the teachers’ ambitions and what barriers and possibilities they face in realizing more inclusive education (IE). The schools appear to have different cultures and space for supporting teachers’ efforts. The teachers find it hard being alone when implementing new capacity. We argue that the organization of the education sector may be a barrier to IE.

Keywords inclusive education | teachers | competence for inclusion | vision and learning | enactment of knowledge

INTRODUCTION

This chapter focuses on three Tanzanian primary school teachers and their efforts to implement newly acquired knowledge about vision and vision disturbances. We study how they integrate this knowledge in their teaching practices and whether they experience challenges in enacting potentially innovative, inclusive teaching practices. The research questions are the following:

How can capacity building support teachers’ efforts to teach more inclusively?
How do they work to adapt their knowledge in their local school setting? What barriers and possibilities are teachers with competencies in learning difficulties facing to become change agents for inclusive education (IE)?

The teachers completed a continuing professional development course (CPD) that was part of a research project and taught both theoretically and practically how vision disturbances amongst children in ordinary classrooms can be identified.

A practical training of eye muscles amongst children with vision disturbances followed, to improve functional vision and reading capabilities (Wilhelmsen & Felder, 2021).

Our analysis is based on an empirical investigation of the teachers' experiences as well as contextual factors that enhanced or limited their efforts as change agents. The analysis is informed by theoretical perspectives and analytical tools that regard teachers as possible change agents and schools as an arena for the enactment of policy changes. We will, however, first present the background for our study, including the relevant Tanzanian education policies and the approach to inclusive education.

BACKGROUND

Since independence, Tanzania has emphasized education as the backbone for national development and identity. Tanzania is committed to the Education for All initiatives, as well as the UN Sustainable Development Goals (SDG). Tanzania has also signed global agreements on inclusive education and the right of children with disabilities to education. Central educational challenges are a high dropout rate and fluctuating pass rates at exams, together with low enrolment of vulnerable groups.

Tanzanian special education dates back to the 1950s (Kapinga, 2012; Mnyanyi, 2014). Following the Salamanca Agreement (UNESCO, 1994), Tanzania started implementing inclusive education in 1997 to ensure access to education for all children (Kapinga, 2012; Mnyanyi, 2014).

According to Opini and Onditi (2016), Tanzania has taken positive measures to improve the educational status of children with disabilities (CWD) by (i) developing disability policies, (ii) establishing inclusive schools, (iii) addressing the stigma of disability, (iv) developing a Disability Law, (v) having specialized teacher college for preparing staff, and (v) improving teacher training. Policies including the Education and Training Policy (1995), the Disability Policy (2004), Disability Act number 9 of 2010, and the Education and Training Policy (2014) emphasize the need to improve access to education for all children and reduce stigma by creating awareness campaigns.

Improving teacher training is critical in the implementation of an inclusive education. Special Needs (SN) teacher education dates to 1962 (Kapinga, 2012) and has since then been based on CPD or in-service training for teachers (Kapinga, 2012; Mnyanyi, 2014). As a strategy to prepare more teachers for Special Needs Education (SNE) and IE, a new teacher training programme for pre-service teachers was introduced in 2019 (URT, 2019b).

The National Strategy on Inclusive Education (2009–2017) defined IE as a system of education in which all children, youths, and adults are enrolled, actively participate, and achieve in regular schools and other educational programmes regardless of their diverse backgrounds and abilities, without discrimination, through the minimization of barriers and the maximization of resources (URT, 2009, p. 2). Issues limiting participation were identified to be in the learner – impairment, psychosocial disturbances, and life experiences – and around the learner – environment, curriculum and teaching, and system (URT, 2009). The strategy for IE (2018–2021) aimed to ensure access, participation, and learning of children with special needs and disabilities in schools (URT, 2017). A new National Strategy on Inclusive Education (2022–2026) puts emphasis on the implementation of inclusive education across education levels. The strategy aims to increase enrolment, to prevent exclusion and dropout, and to ensure increased school completion rates of vulnerable children. It also recognizes the need to strengthen teacher training for SNE and IE.

Implementing IE requires that more children with special needs will learn in regular schools and will lead to rising demands for teachers with SN / IE skills (URT, 2009, 2017). Teachers need empowerment to be able to implement curricula for targeted students (Adbenyega, 2007; Bannister-Tyrrell et al., 2018; Mnyanyi, 2014). A system of special boarding schools, special units, and inclusive schools provides education for children with special needs, and the number of children with disabilities who are enrolled in primary and secondary schools is slowly increasing (JMT, 2021). The 2008–2009 Tanzania National Panel Survey (TZNPS) reported that the school enrolment rate for all children was 81.8 percent. For children with disabilities, it was 57.6 percent, and for children without disabilities it was 82.3 percent. Estimates show that in 2019, a total of 400,000 children living with various forms of disability were eligible for schooling, of whom 11 percent were enrolled in schools (URT, 2019a).

RELEVANT RESEARCH AND THEORY

This text focuses on the possibilities and barriers facing teachers who opt to become change agents for inclusive education by applying knowledge about vision problems. The concept of inclusive education suggests removing physical, attitudinal, and structural barriers and enabling the social and academic participation of all learners, while recognizing the specific barriers some children with disabilities can face in mainstream settings. However, schooling cannot be regarded in isolation from the competing priorities of poor, rural families who often must “choose between education and more basic needs, in particular feeding and medicating

the disabled person” (Grech, 2014, p. 141). Additional factors hindering equal participation may be related to nutrition, transport to and from school, family and community attitudes, language of instruction, and perceived relevance of the curriculum. International discussions have tended to overlook local understandings of inclusion and the fact that education for “all” does not always mean “all”, so efforts are needed to prevent the exclusion of children with disabilities from education (Miles & Singal, 2010).

The three teachers in our study have attended higher education concerning vision disturbances, testing, and training of children’s vision. Our analysis of how they work to adapt their knowledge in their local school setting, and the contextual barriers and possibilities they experience when setting out to use and spread the new ideas and methods, will draw upon studies pointing to challenges when it comes to successfully implementing IE in general and regarding the inclusion of children with disabilities in particular. We understand teachers as actors engaging in transforming and adjusting policies and programmes to the specific school context. Ball et al. (2012) offer an approach based on what they label policy enactment, referring to how local teachers enact policies through discretionary interpretations of goals and ideas in their daily practical work, as an adjustment to concrete contextual factors. Enactment is regarded as a process framed by institutional factors, involving a range of actors (p. 14). Actions and activities result from interpretational processes that interact with contextual, historic, and psychosocial dynamics (p. 71). Ball et al. (2012) consider schools as the centre of policy enactment and as networks of different and overlapping groups of people, artefacts, and practices (p. 143).

The theory of enactment focuses on three factors that make up the policy process: the material (physical aspects of the school, depending on the context), the interpretive (the problem of meaning), and the discursive. In practice, policy actors use various resources to produce their readings and interpretations of policies and programmes based on their experience, scepticism, and criticism (p. 15). Thus, in this perspective, teachers are defined as creative meaning-makers (p. 138). For our purpose, it is particularly relevant to regard contextual factors that may limit or enhance the agency of the teachers. How do the teachers act, and how do they experience this process?

Ball et al. (2012) mention four contextual factors concerning the challenges and possibilities for securing CWD’s inclusion in the educational system and completing their education:

1. The external context regards the support from local governments, pressure, and expectations towards the school.

2. The situated context of local community factors and the historical conditions of the specific school.
3. The professional culture regards the values and experiences of the teachers and school management in the specific setting.
4. The material context.

We will discuss the experiences of the teachers in relation to these factors.

Several studies have pointed out the challenges when it comes to realizing educational reforms and changes in teaching practices in an East African setting. Vavrus et al. (2013) identify the relevant challenges facing the Tanzanian education system, including conceptualizations of authority, and realizing IE in an education system where "the concept is not fully understood by teachers, parents and education officials" (Vavrus et al., 2013, p. 16). The NGO HakiElimu describes five barriers that prevent CWD from participating in school: physically inappropriate and inaccessible school buildings, the general failure among stakeholders to identify the needs of these children, the lack of teacher training, knowledge, and experience, teachers thinking that IE is beyond their capacity, and the lack of teaching and learning materials (HakiElimu, 2008; Lehtomäki et al., 2014). Tungaraza (2014, 2018) also points to contextual factors like inaccessible schools and curricula, the lack of support from parents and community, untrained teachers, and the lack of teaching and learning materials that render IE challenging. Teachers and heads of schools with CWD in their classrooms mostly do not have training in SNE or IE, and the teachers who were interviewed by Tungaraza felt that they generally lacked knowledge and confidence to practice IE.

In addition to factors regarding the infrastructure, community support, and the educational system, several studies point out that teachers need training and confidence to act as change agents. In a comparative study from several African countries, Westbrook and Croft (2015) found that their sample of Tanzanian newly qualified teachers were not prepared to meet student diversity. Teacher education has been slow to adjust to the national policy of IE, and the teaching methods employed often do not support a student-centred and active form of learning that is implied in the curricula.

On the other hand, the Tanzanian teachers in Westbrook and Croft's study were more inclined to practice inclusive teaching strategies, compared to colleagues in neighbouring countries. This slightly more positive attitude to IE in Tanzania is linked to the long-standing awareness of the crucial role of education since independence.

Another study by Miles et al. (2018) concludes that inclusive practices and more equality in education rely mostly on the ingenuity of single teachers. This study

found that experienced teachers also showed willingness to adapt their teaching to include CWD. Teachers who had attended short courses in IE tended to be more oriented towards including CWD in their classrooms and more imaginative in developing inclusive practices. Mnyanyi's (2014) study on teachers' practices in regular schools enrolling children with visual impairment indicated that teachers can systematically change their practices through reflection, analysis, and collaboration as they grow professionally and gain new knowledge and skills for creating a welcoming school environment and enhancing the learning outcomes of pupils with disabilities.

We will here study how the knowledge, ideas, and methods provided by the project CDP are being translated into the work of three teachers in different local school settings and examine how the teachers' efforts to use their knowledge about vision problems interact with contextual factors in their attempts to implement new knowledge of vision problems to increase opportunities for inclusive education.

METHODS

This study is based on results from a Norwegian–Tanzanian research project (2017–2021). We lean on methodological triangulation, using qualitative semi-structured interviews, focus group interviews, observation, field conversations, quantitative survey, and education statistics. Seven teachers and two heads of schools completed the project CPD course that was a central part of the project, and informants were selected from this group. Strategic selection identified three teachers working in schools with different profiles regarding SNE or IE. The three schools are representative of the different types of schools in Tanzania, and this variation enables us to identify the challenges faced by different types of schools. The three teachers are all experienced and dedicated. They have the equivalent of bachelor's degrees in education, which means they have more education than most fellow teachers in primary schools.

Qualitative, semi-structured interviews with the three teachers were carried out on three points of time, in 2018, 2019, and finally in 2021. The pandemic complicated a continuation within the project period, and the follow-up interviews in 2021 were carried out only by our Tanzanian research partner and co-author. The interviews that ranged from 15 to 60 minutes were recorded, transcribed, and stored off-line. In addition, our data also include interviews with school leaders, classroom observation, and informal conversations, from the period 2017–2019. We observed and interviewed participants on short courses about vision problems held at two of the schools. The third school came to our attention in 2018. We also

draw upon material from two master's theses, the research for which was carried out at the third school.

Additional sets of data provide context for our analysis of the three teachers. We carried out a quantitative household survey from the vicinity of School A, with 100 households forming a representative selection. This survey produced data concerning the role of the school, the socio-economic status, and parental attitudes towards education using univariate and bivariate analyses. Statistical material made available from the national authorities gives valuable information about education in Tanzania. National education policies are also important elements in the analysis.

The transcribed interviews were discussed before a content coding selected relevant passages. These categories emerged abductively. The quotes were categorized according to two purposes: to describe each school and teacher and to relate to the theoretical categories that we are applying. The external validity was increased by discussing our interpretations with the teachers in repeated interviews and informal meetings.

The three teachers and the schools in which they work are all anonymized. We have randomized the genders of the teachers and purposely present limited information about their situated contexts. Our project has been clarified by NSD – Norwegian Centre for Research Data and follows the ethical guidelines of both countries.

The CPD course involved screening and training of a selection of children with vision disturbances. We do not have evidence or data materials to discuss the effect of the interventions or how the reading abilities of the children develop over time. When we argue that this kind of intervention seems to have positive effects on the chances to succeed in school, we rely on the impressions of the teachers involved and the available project publications.

FINDINGS ACCORDING TO THE SCHOOLS AND TEACHERS

In the following we describe and analyse the experience and practices of the three teachers in relation to features of the schools where they are employed. We see these schools as situated contexts, with specific professional cultures, as well as material and personnel situations. The schools where the teachers George, Ruth, and Angel work are in three distinctive communities. Places and the localized material, social, and cultural conditions develop differently in situated contexts, and schools are integrated parts of the places where they are situated. Localized experiences of the challenges the teachers meet when following policies, and at the same time enacting their new knowledge, will be at the centre of the analysis.

School A and teacher George

The situated context of School A is a community where it is the only governmental primary school, while two minor schools are private alternatives. Our household survey revealed that most parents preferred private schools but were lacking the necessary capital. School A remained their “only way out”. At the time of observation, School A had around 850 pupils. It is a typical peri-urban primary school, situated in a village largely surrounded by agricultural fields, not far from the urban centre. Most of the parents are small-scale farmers or involved in small businesses. Together with the local community representatives, the school was struggling to collect parents’ payments for school lunches. Consequently, the children in this school received no food during school hours. The local community contributed towards the renovation of the buildings, but the classroom buildings were run-down, and classrooms were crowded. There was a severe shortage of teaching and learning materials, such as textbooks.

In rural or peri-urban contexts parents tend to have low levels of education. Our survey revealed that 74 percent of female caretakers and 69 percent of male caretakers have primary education as their highest level of education. Interviews with several school leaders confirmed that parents in peri-urban or rural communities more often tend to be less involved in their children’s education. Often, School A was struggling to contact the parents concerning their children, and the headmistress confirmed that only some parents used to come to the annual Parents’ Day or in other ways were involved in the school. Also, the local community leaders complained about the lack of involvement. Parental support and collaboration is essential when it comes to children with special needs, and the stakeholders reported that parents of CWD often were reluctant to send their children to school.

School A has a small unit for SN in a separate building, with three small rooms available. The unit for SN and mainstream classes share the same schoolyard. Teacher **George** was a teacher in the special unit. In School A he was the only teacher who completed the CPD course Vision for Reading and Learning. Directly following this, George completed a master’s degree in education.

Most of teachers in the mainstream classes participated in a short course concerning vision and learning. George was a driving force for this short course. However, many of the teachers have since then been transferred to other schools according to national policy.

In interviews George expressed his passion for his newly acquired knowledge about vision and learning. He said that the knowledge was very important both for him in his work as a SN teacher and for the whole school. He took time to pass through the mainstream classes to ask the children if they experienced vision problems. He had screened some children in the school for vision problems. More

than that, he was pointing out that he took care to use the knowledge in his family and local community to advise people in his networks concerning their vision problems.

George was an energetic teacher who enjoyed a large degree of trust from the head of school. He was dedicated to the new knowledge and wanted to make a difference for children also in the mainstream classes. In 2019 he said:

George: This course has a lot of value for me as a teacher. Because I take my time to pass through the classes, normal classes, and ask students how do you feel, if there are anybody who have a problem of vision, if everybody see clearly on the blackboard ...

Interviewer: You ask the kids?

George: Yes, I ask the kids. I go in all over the classes ... yeah, in every week, I go there. Yeah, in every class I pass though. And ask them; is there anybody who find any problem, when you are looking on the blackboard or something like that. (...) I have already screened children here with these local instruments I have here. Because I have the knowledge. That is the big issue. The instruments are not so many big issues. So, I use my knowledge to do that, for all of my school. Last year I planned to screen Standard 1 ... all of the Standard 1. I planned to do that. But I failed to do that because of the situation I had.

What he was referring to here is the fact that he had planned to carry out vision screening of all school starters in early 2019, but that he was prevented from doing this due to a period of absence from work. In fact, this points to one of the arguments of this study. If there is only one person with the competence in a school, the implementation process is fragile. George explained:

My knowledge has been received well by other teachers. Because we teach them, they have knowledge even about that. That is why they sent to me some students, and I just go there myself, and check, and look, and do everything. Yeah. So, it is worth ... Not only to me, but to the school.

The context of the professional culture appeared as supportive. The headmistress was hopeful that George's new knowledge and skills would help the school. She anticipated that if every school starter could be screened for vision disturbances, they could receive treatment and their academic performance would improve. The national authorities monitor the academic performance of every school, and if

more children perform better, lifting the educational standard, the school would be in a better position.

The headmistress anticipated that George would educate the rest of the teachers concerning eye problems and perform screenings and identify children with problems. George, on his side, argued that certain factors complicated his enactment of the new knowledge in School A:

For a large school like this, there is a challenge of having time for teachers to learn vision screening skills and practices ... our school is too big for one person to do all the activities.

Lack of infrastructure, tools, and staff were also put forward as a further barrier to the development of the screening and training:

I also face other challenges like having school infrastructure for screening as one might need a space for the activity, our classes are small and do not have enough light, shortages of experts to provide vision lessons for muscle exercise, shortages of tools for vision screening. (...) I need more time. I need more tools.

I cannot do it alone. I need colleagues from the school and those from the college. I need more experts so we can screen more children.

George also pointed out that the short course offered to other staff members was insufficient:

The short course, from the other teachers, others ... they want to even understand more. But the time is very limited. You know? And they asked me for, when the short course was over, are there any plan of having even a full content of that knowledge that we have here? Maybe a simple book or what ...

School B and teacher Ruth

School B is an urban, governmental primary school with a good reputation. The number of pupils is growing, and currently more than 1,600 pupils attend the school, mostly from families who live in or close to the city. The classrooms are packed. The parents are typically engaged in business of some kind. Some are traders in the city market, while others are public employees. They have the financial opportunity to pay the required school fees. The headmaster explained that the

children come from families who "have something". The fees are, nevertheless, considerably lower than those charged by good private schools.

Compared to rural settlements, urban residents typically tend to be more involved in the formal economy, have higher incomes, and have more years of schooling. Consequently, they are also more resourceful in terms of contributing ideas to the school (Kigobe et al., 2019). The former assistant head of school B said about the education level of the parents:

Maybe primary level there are something like 60% of the parents. Secondary level, maybe like 20%. The remaining portion maybe have A-level, or colleges. But some parents do not know how to read.

School B does not have a SN unit, but it is inclusive in the sense that there are children with low vision in the normal classes. The school is attentive to ensure that these students are integrated in classes and in play. In the classrooms low-vision students are often placed at the front, closest to the blackboard, and they are often allowed to go freely up to study close-up what the teacher has written on the blackboard.

Both the head of School B and the teacher **Ruth** completed the CPD course. Originally one more teacher completed, but she was quickly assigned to another job. In interviews, the headmaster and the teachers were favourable towards the new knowledge. The headmaster was positive about disseminating knowledge of vision problems to the staff and regarded it useful for their ongoing inclusive practices. He was also positive about implementing the new knowledge in the classrooms.

Teacher Ruth was already an experienced teacher. She found the new knowledge and skills acquired in the course valuable and useful. Looking back, she said:

The course was so important to me. You know, often times we blamed children for not performing in schools in different aspects including reading and writing. We did not understand their problems were related to vision disturbances. I realized the course was important when I learnt that by knowing vision challenges one can help the children whose vision is not working well in the classroom.

Ruth was applying the knowledge in her classroom, but she had not found any chance to screen pupils or in other ways reach outside her classes. She explained:

After attending that course, I am taking attention, I mean, to my classes there. Especially to my classes which I am teaching because I cannot ... eh ... do, I mean, I am not taking attention to other classes because I am not teaching. But, for the right being, for the classes in which I am, I'm taking attention to if a person cannot write a work, a person cannot do a work, or a person cannot read. I have to pay attention, to understand the problem of that person.

Ruth found it difficult to achieve much without a designated team of expert teachers in the school, and it was hard for her to singlehandedly complete all the work. Previously, her fellow teachers showed little interest in the knowledge, but after the project arranged a one-day course for the teaching staff, her colleagues' attitudes to the knowledge changed. They became interested in the fact that children may suffer from vision disturbances that may cause problems with learning. Like in School A, many of those teachers have since then been transferred to another school.

Ruth pointed to several challenges that were complicating her introduction and expansion of new practices at her school, such as a need for more equipment to do vision stimulation and training and a lack of time. Like George, Ruth stated that the teachers were already burdened with many tasks and striving to complete their teaching duties:

According to our syllabus we do not have enough time ... of even teaching, even describing to others to understand about this. (...) You know we teachers' time to collaborate is an issue, everyone is busy with the routine work.

She did not perceive negative attitudes from her colleagues or management as obstacles for the implementation of new, inclusive practices. On the other hand, the major challenges seemed to be related to the material context and the transfer of staff who had acquired knowledge of vision issues. The professional culture and the organizational structure and hierarchical culture of this large school represented challenges for enacting this knowledge in School B. The headmaster's office was in a separate building. People were queuing up to meet him. The headmaster's participation in the CPD was regarded valuable both by himself and by Ruth. However, the duties and tasks of the headmaster impeded him from making use of the knowledge or supporting Ruth in doing so:

Mr. Headmaster is very busy there, and cannot sit and do this or this, because what he is doing in his office there is so many things.

The short course received positive feedback from the participants. Ruth felt that her colleagues appreciated the course and learned from it, but she thought that the course was too brief with no practical knowledge:

What I think, because on that day we learned only ... you can say only theoretical, not practical. So, I do think that it can be better if they are told that they can be taught by, I mean the way we have learned by an action doing, learning, learning by doing.

Really, they who attended that really appreciate it. They loved this. Yeh, they learned something. But the time was not enough.

According to Ruth, the most pressing challenge was, however, related to the lack of time and staff in daily teaching:

All teachers are ready to learn more about vision training and screening, but time is not enough. Actually, we need more teachers.

Basically, in such a large school, one person cannot do it alone. (...) In a group you can do it. You can do something, but alone is impossible. Yes.

School C and teacher Angel

School C is a peri-urban, governmental primary school. Its buildings are in slightly better condition compared to School A. School C also experiences a severe lack of teaching and learning materials. The school appears to be well managed, with a relatively new, young head of school.

The school has two separate units. The mainstream classes are located at the front. There are approximately 750 students in these classes. With the exception of a few students, these classes are not inclusive. Some vision-impaired students are re-assigned to ordinary classes in Standard 4, if the teachers find this appropriate.

Separated by a wall there is a SN unit with approximately 100 students with classes for the hearing impaired, the visually impaired, and the intellectually impaired. This unit has separate equipment and facilities for the staff. Our observations and interviews, plus two MA theses based on material from this school, indicate an exchange of experience and competencies between the two units (Hagen, 2019; Raad, 2019). Teachers in the mainstream unit may consult a colleague from the SN unit if they have concerns about a child. The school's SN unit is well known in the local community, and parents often contact them when they want their child to be assessed.

Observations gave an impression of a low-hierarchical and inclusive professional culture amongst the staff and management. The headmaster was very present amongst the staff during the school day. She used the teacher's room as her office and engaged in communication with staff during breaks. The situated context and professional culture appeared to be more geared towards collaboration and trust, compared to other schools. In one aspect the staff seemed to feel united across the chain of command, that was in their communal feeling of distress caused by the frequent visits of the school inspectors.

Teacher **Angel** was at the time of the first observations a teacher in year 4. She was an experienced teacher, and she enjoyed trust and a good relationship with the head of school. In her class there were around 90 children sitting close together. Two children were blind, and they used braille machines. They were placed in the front row, and Angel explained that they had special friends who served as helpers in the classes. Angel showed us the brand-new braille textbooks that the school had recently received. These books were not enough for all students to keep but helpful for teaching and preparing for exams.

Angel's implementation of the new knowledge was innovative, and every morning her class started with eye exercises. The children sang, stood up, sat down, and turned around several times. Then, all the children used their thumb to exercise the eye muscles together for some minutes. She took care to ask the children if they felt discomfort when doing the exercises or when working. In addition, Angel had screened 60 children for vision disturbances and found that 13 of them had vision challenges. She performed weekly training with these children. She explained:

I communicated to their parents and started interventions. On the whole all children had an improved vision after the intervention.

In 2021 the authorities transferred Angel to another school where she was appointed the head of school. She was pleased with the promotion. Her new school is a rural school, where she is the only person with the expert knowledge of vision and vision disturbances. In 2021 she commented on the new knowledge and the course she took:

The course helped me a lot. The most important help to my job was how to determine children with vision challenges and help them to develop better vision without surgery.

In my class I had children who looked normal but could not read well. After attending the course on vision, my first activity as a practice, I went back to

school and screened them. What happened was that most of these children had vision challenges that affected their learning. Generally, the course made me to understand that vision disturbances can contribute to learning challenges.

Concerning plans for the future, she said:

My plan is to implement the same as what I did at [School C]. I am planning to screen teachers, so they are aware and later screen children. The idea I have is that when I screen children, teachers will have already been screened so they might assist me. The school is big ... has so many children ... as such I cannot screen all of them alone.

Like the two other teachers in our study, Angel found that she could not reach out to all classes alone. This was also the case in her new school. One month after starting, she had identified one child with vision problems in the class she was teaching, and she had changed the child's position in the classroom to improve the viewing conditions.

The staff in School C have not been through courses about vision problems, but collaboration between the SN and the mainstream school units may have contributed to a general acknowledgement of the importance of knowledge about the needs of children with learning problems and experience with inclusive practices (Raad, 2019). As a teacher in School C, Angel felt that she had full support from the head of school and that most of her colleagues were supportive, while some of the teachers were reluctant. She explained this:

Some have been interested, and I have screened some of the teachers, but some say: So, you have time to play with the children.

In her opinion, this was because they were not familiar with the knowledge and the fact that there was a lot of pressure to complete teaching according to the schedule of the syllabi. As mentioned, this school experienced frequent inspections, and this may have contributed to this kind of attitude.

DISCUSSION

The analysis highlights that George, Ruth, and Angel have taken the initiative to use their newly acquired competence in their schools and classrooms and regard this as relevant for helping children to improve their learning. In this section, we discuss the possibilities and challenges for expanding the inclusive practices initiated by the teachers.

How the teachers experience the possibilities for change

The three teachers have initiated new practices after completing their CPD on vision for reading and learning. They demonstrate excitement and talk positively about the new knowledge and skills they have acquired. However, the ambitions and scope of their innovative practices vary.

Angel, Ruth, and George face challenges and different options in their efforts to implement the new knowledge in their jobs. Ball et al. (2012) see the school as an arena where policies are enacted, leaving large or small spaces for the actors to adjust policies and programmes to the context. In line with this, it is interesting to ask how three differing schools give space for our teachers' efforts. According to implementation theory, teachers are creative makers of meaning (Ball et al., 2012) or street-level bureaucrats who must exercise discretion when dealing with complex situations (Lipsky, 2010). But how is this relevant for our three teachers?

All three schools give access to children with special needs, two of them in separate units, and two of them try out inclusive classrooms for children with vision problems. Two of the teachers in our study work in mainstream classrooms. The third, George, is employed in the SN unit. Whilst SN teacher George has an ambition to visit the mainstream classrooms of his school frequently to identify vision problems, Ruth and Angel limited their activities mainly to their own classrooms. In his school, George was the only teacher who had completed the CPD, and the headmaster places a great deal of trust in him to use his acquired competence both in the SN unit and in the mainstream classrooms. The head of school hopes that George may be able to screen school starters, as a means of preventing the consequences of undetected learning problems. Thus, there is room for engagement and entrepreneurship that may enhance George's opportunities to use his knowledge about vision problems more widely at his school. It is, however, important to also underline that George's position differs from the other two teachers here, as his time and work in a SN unit is less regulated than teachers in mainstream classrooms. Students in his classrooms are not expected to pass the academic exam after primary school, since the focus is on acquiring certain competences. This lower pressure on academic performance may give George room for more extensive initiatives for the mainstream students.

Angel's classroom practice was systematic and extensive and based on collaboration with parents and headmaster. She had the ambition to share her routines with the teacher who was taking over her class, and as a newly employed headteacher at another school, she aimed to use her skills and experience further. George and Angel both mostly gained trust and support from their leaders and colleagues. Furthermore, at School C, a collaborative spirit between SN staff and ordinary teachers may have supported Angel's initiatives.

Ruth was also very positive about her new knowledge and tried to apply her skills in her own classroom. The headmaster shared her competence and was positive about using it in the school, but the busy schedule made it hard for him to participate in practice or transfer the knowledge to other staff members. More than the other two teachers, Ruth stressed the limitations of being the only teacher with these skills at a very large school from which staff were frequently transferred. The pressure on teaching the syllabi, together with the lack of collaborative relations in everyday activities, led her to see fewer possibilities for using the new knowledge systematically and routinely.

The challenges facing the teachers as change agents

The three teachers were enthusiastic about the potential of the knowledge they had gained and wanted to use it more extensively in their daily work to help children with learning problems. Nonetheless, they pointed out the limitations for expanding their activities. Miles et al. (2018) show that the realization of innovative, inclusive practices depends largely on the ingenuity of single teachers and less on structures and stakeholders framing the teachers. In the following, we sum up and discuss the challenges faced by our three teachers.

Time

Time resources are regulated according to both external and internal contextual factors. Although we have seen that the teachers look for possibilities to practise their newly acquired skills to improve the situation for children in their classes, all three teachers point to the lack of time as a significant obstacle for themselves, their colleagues, and headteachers when it comes to implementing new practices. Assessment of vision and vision training is a time-consuming activity, and they can only reach out to a few. The strongly regulated teaching schedules, frequent inspections of teachers' planning, teaching, results, and reporting restrict their flexibility. The curriculum is fixed and detailed, leaving little room for teacher initiatives. As we have shown, the three teachers face different schedules and curricula. As mainstream teachers, Ruth and Angel teach very large classes and remain responsible for those students' performances in tests and exams. George is in a slightly less regulated situation, teaching special needs according to another curriculum that is more directed towards achieving practical skills.

The pressure on individual teachers about test results also extends beyond the authorities, and in School B the pressure from parents is more intense. We know from research that in Tanzania parents and the home environment are also

important for children's academic performance (Ngorosho, 2011). In Ruth's school, parents in general have more resources. They are also more demanding and they pay for their children's schooling. Teachers' time for extra-curricular activity is limited, and the focus is on the children's exam scores.

At the time of data collection, the pressure from the school inspectors was most strongly experienced in School C. However, it was the head of School A who expressed the urge to screen school starters for vision disturbances, as this potentially could contribute to higher scores on national test results. There is considerable pressure on every school to improve their performances, and one essential element in this seems to be more detailed control over teachers' professional activities and their time. In summary, we see that both the external and internal contexts challenge the professional initiatives of each teacher.

Teacher competencies and the professional culture

The professional culture concerns the values and experiences of the teachers and school management in the specific setting. We define this factor with regard to the organization of and experience with SNE and IE in the three schools and staff and management attitudes towards application of the new knowledge.

The three schools provide either a special unit for children with special needs, and / or inclusive classrooms for children with low vision. The experience with having SN classes may influence both staff and head of schools' attitudes towards inclusive education. The degree of sharing experience across the units may vary. School A and School C have SN units, with dedicated and specialized staff. We observed less sharing in School A.

Regarding the attitudes of their colleagues towards new practices, the three teachers stated that for the most part they had been supportive. Two of them also reported that they had screened their fellow teachers for vision problems, something which may have enhanced positive attitudes towards the new knowledge about vision problems.

Support from fellow teachers seems to have been strengthened by the project's one-day courses on vision problems for teaching staff. The CPD participants from these schools found this useful but insufficient. Providing short courses seems to be a way of ensuring more support for the individual teachers who are working to change practices. It is, however, a challenge that the courses were mostly theoretical and perhaps with limited relevance as support in a practical setting.

Enactment of new ideas depends to a large degree on the staff members in local schools (Ball et al., 2012), and research shows that teachers generally feel that they lack competence and confidence to teach inclusively (HakiElimu, 2008; Lehtomäki

et al., 2014; Vavrus et al., 2013). It seems that the short courses and CPD course spurred engagement and reflections. On the other hand, pressure from both the external and internal contexts may prevent further professional development to engage with children with vision disturbances. The separation between the SN and mainstream teacher education and classrooms may further challenge professional sharing and support.

Local community, parent, and government support

Our material contains interviews with local leaders and school authorities, as well as focus groups with college staff, to discuss the possibilities for upscaling the capacity building related to vision disturbances. Local educational authorities were regarded by several informants as possible collaborators, and George mentioned the possibility of dissemination through the District Education Office.

When it comes to support from parents, School C appears to enjoy closer collaboration with parents, while teachers at School A complained about the lack of parental involvement. School B parents are, overall, more involved in issues pertaining to the children and school activities.

National administration and policies frame the enactment of innovative practices (Ball et al., 2012) in Tanzania's hierarchical administrative system. The structure of the administrative offices may be a challenge because of the silo-like organization with special units taking care of SN educational issues (Vågenes et al., 2023). SN appears as a separate structural silo, and SN teacher education is designated for SN units, classes, and schools, and not for mainstream classrooms. There is little knowledge about general learning problems to be found in the SN teacher education which focuses on impaired children. Mainstream teacher education contains very limited knowledge on IE or SNE alike. Research shows that teachers feel they do not have the needed capacity or skills for IE but that they are able to change their practices through CPD, seminars, and contact with new ideas (Mnyanyi, 2014; Miles et al., 2018; Westbrook & Croft, 2015).

Material context

When it comes to the material context, all the schools need their buildings, teaching and learning materials, and furniture and sanitary facilities to be upgraded. A new curriculum has been implemented, and school managers describe how they are fighting to find copies of syllabi or books for the teachers. One of the school leaders criticized the authorities for a hasty implementation of a new curriculum, without ensuring that material is in place or that the teachers have been informed

about what or how to teach. Added to this is the number of children in the classrooms. Ruth's and Angel's classes contained 80–90 children. It goes without saying that working conditions may be challenging for the realization of IE. The three teachers differ to some extent when it comes to how they view the situation regarding infrastructure and equipment.

When it comes to material for screening children's vision, Ruth says that she needs such equipment, while George states that the material is of less importance as long as he has the skills. To start making a change, easily available, low-cost material can be used. To assess more thoroughly, however, there is a need for more advanced equipment.

CONCLUSION

Our analysis focuses on the experiences of three teachers who share the ambition to use and expand the knowledge and skills acquired through a CPD on vision disturbances. What are the barriers and possibilities for these teachers to act as change agents to enhance learning amongst all learners in their schools?

The three schools included in our study represent three situated contexts. They differ in size, geography, and recruitment of learners, as well as staff competence. The three schools represent a minority amongst Tanzanian schools as they all have experience with including children with special needs, either in separate units or in mainstream classrooms. In School A, teacher George experiences less pressure from external and internal contexts as a SN teacher of a small group. In crowded School B, teacher Ruth feels the pressure from authorities, as well as parents, to focus on curricular activities. The head of school has less contact with the teaching staff, and Ruth lacks support to carry out, for example, vision screening. In School C, teacher Angel is also conscious of the pressure from the authorities, while the professional culture seems more oriented towards sharing and support.

The three teachers were enthusiastic about their new knowledge, and they received support from school leaders and colleagues, particularly after more staff members gained knowledge about vision disturbances through short courses. They also pointed to a range of barriers they have faced when trying to establish new practices of screening and training vision. Only one of them had been able to reach out to several classes at School A, and the position of this teacher was in fact less regulated and more flexible compared to ordinary, mainstream teachers who were more bound by syllabi, testing, and exams.

The three teachers agree that the possibility of sharing knowledge and expanding new practices is limited if they were the only staff with such competencies.

The need for teamwork and sharing, and for more courses for the staff, are factors mentioned by all the teachers. As a single teacher with this specialist knowledge in a school, it may be difficult to organize screening and eye-motoric training in the very busy schedule that most teachers face in Tanzanian schools. It is empowering to be part of a team that can carry out such activities.

What is the relevant long-term sustainability of this kind of capacity building aimed at single primary schoolteachers? It is important to underscore that our analysis focuses upon the teacher experiences in using newly acquired knowledge. We do not have reliable data about the outcome of their efforts when it comes to enhancing reading and learning skills. Further, to grasp the scope and endurance of the new practices and the possibilities for competence sharing with other staff members, we will need to follow up the study over time. Our study gives, however, some clues regarding the possibilities for more stable, inclusive classroom practices. To provide new knowledge to one teacher in a large school with a strictly regulated timetable has limitations. Thus, it seems important to ensure that a group of staff share new ideas and tools in order to make lasting changes. Short courses to groups of teachers can give inspiration and new perspectives on teaching but need to provide practical tools and be more comprehensive to motivate and supply the capacity to change practices.

The Tanzanian system of job assignment, with authority-initiated transfer of teachers to new jobs, may provide possibilities for expanding new practices. On the other hand, it may cause vulnerability when it comes to the continuation of initiatives and new practices. There is a tendency to move teachers with high competence and experience to senior positions. We have seen that educating headmasters may help to ensure understanding and support, but in such positions, there may be less opportunity to become change agents due to busy schedules. The main findings of this study are, then, that knowledge about learning difficulties may foster change towards more inclusive practices, but that the scope and stability of these changing practices will depend on larger-scale competence reforms.

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