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Learning Support Strategies to Overcome the Effects of Promoting Condoned Senior Phase Mathematics Learners to the FET Phase

Yudvir Bhagwonparsadh^a & Kereng Gilbert Pule^{*b}

* Corresponding author **Email:** pulekg@unisa.ac.za

a. Department of Mathematics, Natural Science and Technology Education, The University of Free State, Bloemfontein, South Africa.

b. Department of Mathematics Education, Pretoria, University of South Africa, South Africa.

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ABSTRACT

The study investigated the effects of condonation on the promotion of senior phase mathematics learners into the FET phase in a high school in KwaZulu-Natal. Condoned learners were assisted to progress, despite not meeting the pass requirements. The study suggests learning support strategies teachers could use to improve condoned FET mathematics learners' performance. An exploratory case study investigated the condonation policy and its effects thereof. Interviews were conducted with two mathematics teachers, and open-ended questions were posed. The data analysis entailed collating the data, followed by a thematic data analysis approach. The literature study was done on pertinent theories, prior studies, and pragmatic research. The findings suggest that condoned learners did not master the foundational knowledge and accumulated knowledge gaps. Consequently, learners struggle to achieve good performance in FET mathematics. This may lead to condoned learners failing FET mathematics, dropping mathematics in favour of more uncomplicated mathematical literacy, or dropping out of school rather than completing Grade 12. The study recommends that condoned senior phase mathematics learners struggling to perform well in FET mathematics need to undergo an individualised learning support programme. Teachers will then employ various academic teaching and learning support strategies to help improve learners' FET mathematics performance. The success of learning support depends on a collaborative relationship between nurturing teachers and parents and positive discipline in group teaching within supplemental classes.

KEYWORDS

Condonation; teachers; individual support plan; learning support strategies; improved learner performance, mathematics.

BACKGROUND

This study investigates the effects of condonation on the promotion of senior phase mathematics learners to the further education and training (FET) phase. In 2016, the Department of Basic Education (DBE) introduced the *Special Condonation Dispensation for Learners in the Senior Phase (Grades 7-9)* policy for 2016 to 2017 (DBE, 2016). Learners who would have failed the senior phase because of not meeting the minimum pass requirements (DBE, 2016) were condoned in senior phase mathematics and promoted to the FET phase. Many of these progressed learners achieve below par in various subjects, specifically sciences, including mathematics (Dube & Ndaba, 2021).

Condoned learners had not mastered the foundational skills in the senior phase needed to take on FET mathematics (Davids & Waghid, 2016), but condonation allowed them to be advanced and eventually reach Grade 12 without mastering basic skills and knowledge (Lumadi, 2014). In other words, these learners' deficits in expertise continued to grow in the FET phase, resulting in many of them performing poorly in mathematics. These learners need to be academically supported to pass FET mathematics (Legotlo et al., 2002). An academic support programme involves structured interventions given to learners within specified time frames (DBE, 2014). This would help condoned learners to overcome their gaps in knowledge and catch up with the lost content in the FET phase (DBE, 2020).

Therefore, there is a need for condoned mathematics learners to be academically supported to overcome their gaps in knowledge and master the content of the subject that they did not pass in the senior phase (DBE, 2014). To assist learners with learning difficulties, the DBE has national guidelines such as *Education White Paper 6: Special Needs Education* (DBE, 2001), which contains the national policy on inclusive education, and the *Screening, Identification, Assessment, and Support* (SIAS) policy (DBE, 2014), which allows for the tracking of learners who are at risk of failing so that an intervention support programme can be provided to overcome their barriers to learning. These policies provide guidelines on using academic learning strategies to support learners who are struggling with the learning content.

Seemingly, these policies were not adequate. Many learners failed or dropped out of school, as the cohort that started school was much larger than the one that finished Grade 12 (Letshwene, 2019). According to Davids and Waghid (2016), inadequate academic learning support is provided to underperforming learners. The performance of these learners may improve if they receive assistance from their teachers.

Problem statement

The policy of condoning senior phase mathematics learners and promoting them to the FET phase without having acquired the foundational mathematics skills has resulted in learners struggling to learn FET mathematics. Schools now implement the "pass one, pass all" policy, where, in effect, all learners are condoned in mathematics regardless of their competencies in the subject matter (Davids & Waghid, 2016). This has resulted in learners failing FET mathematics and failing in the phase (DBE, 2020).

In order to address this problem, condoned learners require academic learner support. Letshwene (2019) broadly defines learning support or academic support as a collective action to support learners by using intervention programmes, either by curriculum differentiation or adaptation and referring learners to other stakeholders for approval. In other words, condoned learners need remediation of the foundational content they have not acquired; thus, they require reteaching (Oktavianty et al., 2018).

However, the literature shows that the learning support provided to underperforming learners by the DBE is minimal or non-existent; therefore, many learners struggle to acquire the new learning content (Davids & Waghid, 2016). To the researchers' knowledge, very little research has been conducted on learning support strategies that may assist mathematics learners in overcoming the effects of being condoned in the senior phase and then promoted to the FET phase. Therefore, this study investigates the effects of condonation on the promotion of senior phase mathematics learners who were promoted to the FET phase and the possible learning support strategies that may be implemented in a selected school in KwaZulu-Natal.

Research Questions

- How does condoning Grade 9 learners and promoting them to Grade 10 affect their mathematics performance in the FET phase?
- How can condoned learners be academically supported to improve their mathematics performance?

Research Objectives

The research objectives are:

- to explore how condoning Grade 9 learners and promoting them to Grade 10 affect their mathematics performance; and
- to determine the academic support provided to condoned mathematics learners to • improve their mathematics performance.

THEORETICAL FRAMEWORK

The social constructivist theory provided a framework for the researchers to conduct an empirical review of learning support strategies to overcome the effects of condoning and promoting senior phase mathematics learners to the FET phase. Vygotsky theorised learning in children as a process to construct new knowledge on existing knowledge. In other words, knowledge is created by learners being actively involved in collaborative social interaction and negotiation with other knowledgeable persons through group dynamics and being influenced by their real-life experiences (Bay et al., 2012). Furthermore, learners build new knowledge by scaffolding new knowledge based on existing knowledge.

Condoned senior phase mathematics learners require Grade 9 mathematical knowledge to build their FET knowledge because mathematics is hierarchical (DBE, 2001). Therefore, condoning learners in the senior phase affects their academic performance levels in FET mathematics. Legotlo et al. (2002) postulate that when learners do not perform well in the

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senior phase, it affects their mastery of the subject matter in the FET phase. Related to this, the researchers also share the view of other scholars that condoned senior phase mathematics learners lack the foundational knowledge, are pushed into the FET phase, and, consequently, struggle with learning the new content. These learners have acquired learning deficits or gaps in mathematics that affect their performance levels in the grades ahead (Letshwene, 2019).

To assist condoned learners in the FET phase, they need to gain basic mathematical knowledge to improve their performance levels in FET mathematics to overcome their learning gaps in mathematical knowledge. Accordingly, the DBE introduced the SIAS policy (DBE, 2014), which specifically addressed the need to provide academic learning support to learners to overcome their learning difficulties.

A cohort of condoned senior phase mathematics learners can mediate socially, and their language is the medium through which they develop knowledge; hence, meaning is constructed (Pritchard & Woollard, 2010). In a social constructivist mathematics classroom, teaching a lesson has now changed to facilitating a lesson (Bay et al., 2012). The teacher instructing the lesson content in its traditional form is no more. This allows the teacher to create and facilitate learning so that condoned learners can participate in the processing and gaining of knowledge. Therefore, learners are not passive receptors but actively interrogate the mathematics content with questions (Fritz-Stratmann et al., 2014). The teacher's role is now that of a motivator, supporter, and challenger in learning, and no longer a disseminator of knowledge.

Opponents of social constructivism assert that knowledge is negotiated, mediated, and informed by individual learners' experiences; therefore, the learning outcomes may differ (Bay et al., 2012). The constructivist learning theory focuses on actively building new knowledge on previous knowledge and experiences. The researchers postulate that teachers may reveal the effects of condoning senior learners in mathematics and suggest possible academic intervention strategies to support these learners in the FET phase. The deficits in mathematical knowledge accumulated by condoned learners show that they need to be retaught the primary subject matter to learn new content.

There is a dire need to overcome the effects of condonation on senior phase mathematics learners who have been promoted to the FET phase. Letshwene (2019) insists that learners with learning difficulties should receive learning support, which would benefit them in the classroom. This may improve their mathematics performance and translate into better National Senior Certificate results. It may also reduce the number of learners failing mathematics, leading, in turn, to fewer learners dropping out of school before they reach Grade 12. In addition, learners may leave school with more mathematical knowledge, which should better equip them to study mathematical courses at the tertiary level. Moreover, an improvement in the quality of mathematics performance would allow South Africa to compete globally with other countries. Therefore, there is a need to explore learning support strategies to overcome the effects of condonation on senior phase mathematics learners to improve their academic performance levels in FET mathematics.

LITERATURE REVIEW

Possible challenges faced by condoned senior phase mathematics learners in the FET phase Legotlo et al. (2002) point out that learners in the senior phase are promoted without gradeappropriate competencies, which results in shortfalls in their mathematics learning content. Subsequently, their poor mathematics performance is noticeable over time, especially from Grade 10 to Grade 12. If their poor performance is not remedied, dire consequences may be experienced by condoned learners, especially when they enter the FET phase.

The DBE (2020) states that due to learners being condoned, there is a high dropout rate, especially from Grade 10 to Grade 12, due to learners failing because of their incompetence in the subject matter. This can also be attributed to the high rate of passing learners who do not meet the minimum pass requirements to the senior phase, in other words, condoning learners. In 2019, the DBE reported a dropout rate of almost half the number of learners sitting for the National Senior Certificate in 2018. There is no condonation in Grade 10; therefore, many learners underperform and fail the grade (Pule, 2020).

There is a dire need to overcome the effects of condonation on senior phase mathematics learners who are promoted to the FET phase. If these effects can be rectified, the learners' mathematics performance can be improved, which may translate into better National Senior Certificate results. Also, the number of learners who fail mathematics can be reduced, leading, in turn, to fewer learners dropping out of school before they reach Grade 12. Moreover, learners may leave school with more mathematical knowledge, which should better equip them to study mathematical courses at the tertiary level. An improvement in the quality of mathematics performance would also allow South Africa to compete globally with other countries.

Condoned senior phase mathematics learners have learning deficits in mathematical knowledge

Condoned senior phase mathematics learners have acquired gaps in knowledge that contribute to their underperformance in FET mathematics (Letshwene, 2019; Pule, 2020). These learning difficulties hinder learners from developing basic literacy skills and result in low achievement levels. Condoned learners may not be deserving of passing to the FET phase, and if they are progressed, they may be responsible for a poor pass rate in Grade 12 (Pule, 2020). Many eventually drop out of school before reaching Grade 12. Meanwhile, other learners who struggled to get to Grade 12 might have performed poorly in the subject content and, therefore, enrolled for mathematical literacy instead of pure mathematics (Letshwene 2019).

Defining an academic support programme and the contribution it makes to learners' performance level in FET mathematics

An academic support programme should consist of different learning support strategies schools may implement to improve the academic performance of learners who are at peril of diminished academic achievement (Peterson et al., 2014). Learning support programmes comprise additional teaching material, holiday classes, after-school programmes, and differentiated teaching strategies to address the specific learner's performance (DBE, 2020). Furthermore, a learning support programme consists of additional remediation, curriculum instruction, the academic teaching of learners in groups, and other related psychological, medical, and social support services to prevent learning difficulties in learners. Oktavianty et al. (2018) define learning support or academic support as a collective action to support learners by using intervention programmes – either curriculum differentiation and adaptation or referring learners to other stakeholders for support.

Accordingly, the researchers define academic support programmes as learning support strategies that include additional teaching material, the remediation of learning in smaller groups, a differentiated approach to teaching, extra classes during the holidays, after-school programmes, and academic support provided by other related social structures. Supplementary teaching material offers expanded opportunities for struggling learners to work through supplementary mathematical sums such as those they are struggling with to strengthen their involvement and inclusion in the lesson (Fritz-Stratmann et al., 2014).

Remediation is needed when learners do not learn the subject content and require reteaching (Oktavianty et al., 2018). It should include educational intervention strategies focused on learners who did not master the subject content in the previous grades. Learners with similar learning difficulties need to be retaught basic knowledge in small groups (Oktavianty et al., 2018). Remediation after school hours may bridge learning gaps acquired in learners' previous grades.

Differentiated teaching strategies refer to the change, modification, or adaptation of teaching and learning methodologies and assessment strategies to improve learners' performance abilities in the classroom (DBE, 2014). The subject teacher may host extra classes after school or during the school holidays.

Lastly, parents, peers, and teachers may provide academic support to struggling learners. Learners' social structures also refer to services received from the Departments of Social Development, Health, and the Public Service Administration that should assist learners with social problems that may affect their academic achievement in school (DBE, 2001).

Individual Support Plans (ISPs) for condoned learners

Learners who have been condoned in mathematics struggle with grasping new mathematical content because they did not master the subject matter in the previous grade and, consequently, perform poorly in the FET phase (Lumadi, 2014). Therefore, the subject teacher should design an ISP for every condoned learner (DBE, 2014). The function of the ISP is to provide learning support to condoned learners to help improve their academic performance in mathematics. It involves using various complementary learning support strategies to intervene with learners who perform poorly in the subject. The ISP should be developed with the learner's parents and the school-based support team (DBE, 2014) and aims to supplement the learner's opportunities to acquire the subject matter he or she has lost. This educational support is added

to classroom teaching and learning and can be in the form of intervention strategies such as learning programmes, services, and resources (DBE, 2014).

Pule (2020) claims that learning support should be given to learners who experience difficulties in learning the subject matter; this forms part of the ISP. According to the DBE (2014), learning support provided by mathematics teachers is critical in the learning and development of a learner who experiences learning difficulties. Peterson et al. (2014) affirm that providing academic support to learners will help improve underperforming learners' educational achievement. Hence, the quality of the ISP is critical to providing academic support to condoned learners who struggle to perform well in the FET phase. The following complementary learning support strategies may assist condoned mathematics learners in improving their performance levels as they progress to the FET phase: differentiated learning, remedial teaching on the subject content, peer tutoring, and parental support.

Differentiated learning

To understand learning support, the researchers investigated differentiated learning in an inclusive classroom (DBE, 2001). Differentiated learning allows teachers to create different expectations for different learners performing at various academic levels in order to include all learners in teaching and learning. Teachers should use multiple methods and support to succeed with differentiated instructions within the curriculum (DBE, 2014).

Differentiation should be necessary for learners who learn mathematics because they vary in their readiness, interests, and learning preferences in the classroom. All the learners in a classroom will not be at the same level in their knowledge and understanding of mathematical concepts and their use of mathematical skills, such as mental mathematics and estimation (Fritz-Stratmann et al., 2014). Moreover, learners differ in their application of solving problems in mathematics. In other words, they differ in their reasoning skills, connecting mathematics to real life, and representing mathematical ideas and relationships.

The curriculum can be differentiated to cater to each learner's needs to prevent underperforming learners from failing mathematics in the FET phase. This should help learners to overcome their learning difficulties in learning mathematics and reach the necessary level of knowledge, skill, and competency (DBE, 2014).

Remedial teaching on the subject content

Condoned senior phase mathematics learners are advanced to Grade 10 without achieving the minimum requirement to pass. They then find learning new subject matter challenging (Letshwene, 2019) and should, therefore, receive remedial teaching on the mathematical content they found difficult to grasp in the senior phase to assimilate the new FET content.

Remedial education can be described as reading, writing, or mathematics courses for learners who are deficient in using the necessary academic skills (Lumadi, 2014). Consequently, the researchers define remedial teaching as teaching content that condoned learners find challenging to master. The SIAS policy (DBE, 2014) focuses on remedial teaching to assist learners in increasing their performance levels in the subject matter. Subject teachers should also be remedial teachers who provide the necessary academic support to condoned learners with learning difficulties to improve learners' performance levels at school (DBE, 2001).

Peer tutoring

A school-based support team should consist of learner representatives at the senior, further education, or higher education levels (DBE, 2014). The support provided by learners' peers can vary from psychological to academic or social support. Peer tutoring should be an educational approach that entails learners assisting one another to learn content by repeating key concepts.

Peer support aims to support learners in a socially participative learning environment (Kroflič, 2019). Some schools have adopted a "buddy system" as a form of peer support with substantial academic benefits for learners who experience challenges in learning. Fritz-Stratmann et al. (2014) reveal that peer tutoring is effective for elementary and secondary learners. The strategies involved in successful peer tutoring require the repetition of key concepts in the subject content and opportunities for the learners to respond to attain improved levels of performance (Lumadi, 2014).

Parental support

Letshwene (2019) believes that the most effective strategy to improve learners' mathematics performance is to engage parents in their children's learning process. The parent is one of several essential stakeholders in implementing a support programme. Within the school-based support team environment, parents should communicate with the subject teacher on decisions that need to be made about the type of academic support programme offered to their children (DBE, 2014).

Parents should play an integral role in recognising learning difficulties experienced by condoned learners. Once communicated to the subject teachers, it can lead to finding the exact nature of the barrier that a learner experiences (DBE, 2014). Parental involvement is beneficial in improving the performance level of mathematics learners (Letshwene, 2019; Pule, 2020). Hence, it should be the responsibility of the parents of condoned learners to inaugurate contact with subject teachers regarding their children's progress and additional support that is needed. This will allow parents to provide academic support to their children who are struggling with the subject content at home while informing the subject teachers of their children's progress in the educational support programme they are following.

However, parents who are ill-informed about their supporting role in the academic support programme may increase their children's learning difficulties in the subject content. For this not to happen, the parents and the subject teacher should be in constant communication with each other about the activities of the support programme and the successes and failures thereof (DBE, 2014).

Parents can positively affect the performance levels of learners in an academic support programme. According to Pule (2020), the parent component of providing support to learners with barriers to learning in an inclusive education system is essential. Parents should be more actively involved in their children's academics (DBE, 2001). Therefore, it is paramount that parents and subject teachers forge a two-way communication relationship so that parents can be correctly informed of the learning difficulties their children are experiencing. Parents can also support learners at home because they may continue participating in the academic support programme long after leaving the institution.

METHODS

This research followed a qualitative approach to a case study and used raw data from the participants. The researchers employed the purposive sampling method to identify mathematics teachers who taught condoned learners up to Grade 12 for the 2016 and 2017 cohorts. This single criterion was used to select participants and derive meaning from their responses about the phenomenon under review (see Creswell, 2016). Semi-structured questions were posed to the two mathematics teachers, audio-recorded, and investigated.

Two mathematics teachers who taught condoned senior phase mathematics learners in the FET phase were selected to participate in the study. For a thorough investigation, it is imperative to present a short résumé of their biographic attributes of qualification, position held, and type of school. Table 1 below shows the teachers' age, sex, years of teaching experience, and highest qualifications.

| Participants | Age | Sex | Teaching | Highest | Position held | School |
|--------------|-----|-----|------------|---------------|---------------|--------|
| | | | experience | qualification | | |
| Teacher 1 | 48 | Μ | 28 years | F.Ed. Dip. | Department | Public |
| | | | | | head | |
| Teacher 2 | 42 | F | 15 years | B.Ed. | PL1 | Public |

 Table 1. Biographical information

It is clear from Table 1 that the participants in the study were qualified teachers – one had a FET Diploma and the other a bachelor's degree in Education. One participant was a department head (post-level 2 educator), and the other was a post-level 1 educator. Both were taught in the selected public school in a residential suburb.

In this study, thematic analysis was employed to make sense of the data gained from the participants. Thematic analysis is a procedure used to identify, analyse, and report patterns (themes) within data collected by a researcher in a meaningful way (Braun & Clarke, 2006). Questions were posed to the participants to gain data for each generated code. The data acquired from answering the research sub-questions were used to create codes. The codes identified themes throughout the interviews to reach a repeated pattern of meaning. The themes were categorised according to the information gained from the participants' responses, as suggested by Braun and Clarke (2006). The categories were obtained from questions coded as "the effects of condonation and promotion on learners' performance", "condoned learners

require academic support", and "support strategies to assist condoned learners to improve their performance". These codes were used to categorise all the collected data to develop themes. When all the data had been classified, themes were developed.

The researchers studied the data extensively, providing detailed narrations to answer the research questions. The interpretation of the participants' feedback to each question is presented below.

RESULTS

The responses given by the mathematics teachers during the interviews are presented with some discussion below.

In your experience with the Grade 10 learners, how did the learners' condonation in Grade 9 mathematics affect their academic performance in Grade 10?

Responses from both teachers to this question asserted that condoned mathematics learners had not met the minimum pass required and, therefore, had been condoned. Their responses suggested that condoned mathematics learners lacked some subject content from the previous grade. The participants contended that condoned learners struggled with the basics of the subject matter, as they had been promoted to higher grades. This is in line with findings by the DBE (2020) that condoned learners progressed without meeting the requirements and, therefore, lacked the foundational knowledge in mathematics that they should have mastered in the senior phase. The two participants highlighted the effects of condonation on learners' academic performance in Grade 10 as follows:

Teacher 1: Those that [had] been condoned, what you call, they did not get the pass requirement. So, it means some gaps have been left out that have not been filled. **Teacher 2:** These learners lack basic maths; the simple knowledge in maths they don't have. Like the simple things in multiplication and the exponents, the difference in multiplication and exponents, those things; if you are talking of multiplication as well as the numbers for exponents. So, they end up not understanding the relationship. They struggle with [the] basics in the subject when they move to Grade 11.

Teacher 1 further argued that condoning senior phase mathematics learners and progressing them to the FET phase negatively affected their performance and changed their mathematical literacy. This trend was also noted by the DBE (2020), as there was a higher enrolment for mathematical literacy than pure mathematics because condoned learners struggled with mathematics and then failed FET mathematics. The following response from Teacher 1 demonstrates this.

Teacher 1: Whenever the learner comes to Grade 10, so maybe after a quarter, that learner needs to change from mathematics to mathematical literacy because that learner is struggling after being condoned from [sic] Grade 9 mathematics.

How does condoning senior phase learners affect their ability to acquire the new mathematics content in Grade 10?

The feedback from both teachers suggests that condoning senior phase mathematics learners and progressing them to the FET phase negatively affect the performance of mathematics learners. These learners do not possess the fundamental mathematical knowledge and, therefore, need to be retaught the foundational knowledge in mathematics. According to both participants, condoning and promoting learners result in their struggling with FET mathematics.

Teacher 1: If they struggle, you need to start afresh, as if you are still teaching them the Grade 9 work.

Teacher 2: We must arrange some time to assist them to fill up those gaps they are lacking in that grade.

How can condoned learners in the FET phase be academically supported to improve their mathematics performance?

The responses from the participants suggest that they attempted to provide supplementary teaching to condoned mathematics learners on the Grade 9 content they had not mastered. Both participants conceded that extra classes were given which aimed to reteach the foundational knowledge that learners had not acquired. The DBE (2014) also shares this view, stating that in preparation for learning FET mathematics, condoned learners need extra classes to undergo an academic support programme to receive the foundational knowledge in mathematics they have not acquired. Therefore, additional classes are required for condoned senior phase learners to be retaught the foundational knowledge in mathematics, as were related by both teachers.

Teacher 1: We have tried to support them, by what you call, those that are having problems, although we understand that some learners are to give the extra tuition [sic].

Teacher 2: This is where we tried to offer the learners some extra classes ... we must arrange some time to assist them to fill up those gaps they are lacking in that grade.

Discuss an academic support programme you offered that resulted in a positive or negative effect on learners' performance in Grade 10 Mathematics

Both teachers seemed to agree that an academic support programme consisting of working out past examination papers and textbooks would positively affect condoned mathematics learners' performance in the FET phase. Similarly, the DBE (2020) attributes the success of the 2019 National Senior Certificate support programme to its use of past question papers. This suggests that academic support consisting of previous years' examination papers will improve condoned learners' performance in FET mathematics, as affirmed by the responses below.

Teacher 1: The support programme of [sic] which I offered to learners, ay, that one to improve on their performance in other words ... I use the textbook as a guideline but in [sic] some stage, I put, what you call, some problems from previous question papers to make them aware that questions are asked in this way whenever they are writing a test.

Teacher 2: The support documents with questions taken from previous question papers must be used throughout schools with their solution so that learners can just revise such similar questions.

DISCUSSION

The findings are discussed under the subheadings below, using the abovementioned data.

The negative effects of condonation and promotion on learners' mathematics performance in the FET phase

The outcome of the study suggests that condoned mathematics learners lack some primary mathematics content from the previous grade. Condoned learners struggle with the basics in the subject matter, as they have been promoted to higher grades. Basic mathematical knowledge is the foundation on which new knowledge is built, which is closely aligned with social constructivism. Social constructivism is based on the belief that learners gain new meaning from building knowledge on their pre-existing knowledge (Pritchard & Woollard, 2010).

Furthermore, the study has revealed that without acquiring foundational knowledge in mathematics, condoned learners struggle to achieve good performance levels. The DBE (2020) acknowledges that the continuous decline in condoned learners' performance as they move to higher grades is a huge concern. The decline in learners' mathematics marks can be attributed to promoting learners with accumulated gaps (Legotlo et al., 2002). According to the social constructivist learning theory, condoned learners require prior knowledge as the foundation to build new mathematical knowledge (Bay et al., 2012). Therefore, meaningful learning in mathematics can only happen by scaffolding new knowledge based on existing knowledge.

The study shows that learners may lack important mathematical content when they are progressed to Grade 11, as they have not acquired foundational knowledge in Grade 10 but are pushed to Grade 11. Letshwene (2019) believes that assisting learners to progress from grade to grade results in accumulated learning deficits, which are evident from Grade 10 to Grade 12. These learners may struggle with acquiring new content throughout the year because they lack the grounding knowledge from Grade 9. Eventually, they may fail the subject, drop out of school, or drop mathematics in favour of mathematical literacy.

Many support strategies exist to assist condoned learners in improving their performance levels in mathematics

The findings suggest that extra tuition was given to condoned mathematics learners and was supplemented with other academic support strategies. An ISP provides learning support to learners who struggle with understanding the subject content through additional support strategies or expanded opportunities for classroom learning (DBE, 2014). Learners should attend extra classes to undergo an academic support programme for mathematics.

The SIAS policy (DBE, 2014) provides the framework for constructing an educational support programme. This policy advocates that learning support must be given to learners in

their schools to overcome barriers to learning and development (DBE, 2014). The ISP includes differentiation of the subject content, a change in classroom methodologies, and a modification in assessment to accommodate learners with barriers to learning and development (DBE, 2001). Extra classes can be conducted by mathematics teachers outside standard teaching time, allowing condoned learners to receive additional learning support on concepts with which they are struggling in mathematics. Peterson et al. (2014) postulate that after-school programmes positively affect teaching and learning. Condoned learners usually attend these classes and are equipped with knowledge before or after school hours; therefore, extra classes do not infringe on standard teaching time. Additional mathematics classes provide social constructivist teachers with the opportunity to place the learners at the centre of knowledge construction by posing questions on challenging mathematical content (Kroflič, 2019).

The findings suggest that exposing condoned learners to previous examination papers helps them improve their performance level in FET mathematics. Similarly, according to the DBE (2020), academic support was provided to Grade 12 learners in 2019, including additional teaching material from past examination papers and after-school programmes. These were supplemented with differentiated teaching programmes, lesson adaptations, and differentiated grouping and modification of teaching methodologies during supplemental classes (DBE, 2020).

Pule (2020) points out that schools provide extra classes so that learners can improve their academic achievement. During additional classes, learners receive supplementary notes and different teaching and learning on mathematical concepts (Fritz-Stratmann et al., 2014). Extra tuition time with the subject teacher can also allow learners added time to complete their mathematics classwork under the teacher's supervision (DBE, 2001).

Letshwene (2019) mentions that expanded opportunities are related to homework given to learners. Homework is an academic support strategy used to teach mathematics to learners who experience difficulties (Oktavianty et al., 2018) and allows learners to practice mathematical problems, such as word problems, in past examination papers (Letshwene, 2019). Therefore, giving learners previous examination papers for homework will enable them to engage with the subject matter independently.

After a teacher has identified a learner's weakness, based on the corrections done on homework, the teacher can provide the appropriate academic support, either by reteaching or varying the teaching methodology (Oktavianty et al., 2018). This may enable struggling learners to master the mathematical concepts they find challenging. This form of academic support strategy can be used to improve learners' performance. The findings concur that condoned mathematics learners should be retaught their mathematics classroom and foundational knowledge. This finding is aligned with the theory of social constructivism, which advocates that mathematics learners being involved in interactive group work and problem-solving situations constitutes meaningful learning (Bay et al., 2012).

The learning needs of condoned learners can explicitly be catered to in differentiated classes using varying teaching methodologies and practices. Curriculum differentiation includes

variation in the subject matter, an adaptation of teaching methodologies, and adjustment in assessment regimes (DBE, 2014). Differentiation of the school curriculum is another strategy the subject teacher may use on underperforming learners in mathematics to raise their level of performance.

CONCLUSION

This study supplements the body of knowledge on the effects of the condonation of senior phase mathematics learners and their promotion to the FET phase. The findings suggest that condoning senior phase learners and promoting them to the FET phase result in their not mastering the foundational knowledge required to learn FET mathematics. Therefore, condoning senior phase learners in mathematics results in their accumulating gaps in knowledge.

The study recommends that condoned mathematics learners undergo an academic support programme in the FET phase. This would enable them to acquire the prior knowledge needed to overcome their accumulated knowledge gaps to perform well in FET mathematics. Mathematics teachers should develop an ISP for every condoned learner who experiences learning challenges and should include learning support strategies that are supplemental to the ordinary school day in the form of extra classes conducted before or after the regular school day. The school-based support team should be integral in coordinating the learning support programme for every condoned learner who needs academic support.

REFERENCES

- Bay, E., Bagceci B., & Çetin, B. (2012). The effects of social constructivist approach on the learners' problem-solving and metacognitive levels. *Journal of Social Sciences*, 8(3), 343-349. https://doi.org/10.3844/jssp.2012.343.349
- Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101. http://dx.doi.org/10.1191/1478088706qp063oa
- Davids, N. & Waghid, Y. (2016). *Educational leadership in becoming: On the potential of leadership in action*. Routledge.
- Department of Basic Education (South Africa). (2001). *Education White Paper 6 Special Needs Education: Building an inclusive education and training system*. Department of Basic Education.
- Department of Basic Education (South Africa). (2014). *Policy on screening, identification, assessment and support*. Department of Basic Education.
- Department of Basic Education (South Africa). (2016). *National assessment circular No 3 of 2016*. Department of Basic Education.
- Department of Basic Education (South Africa). (2020). *Annual performance report 2020-2021*. Department of Basic Education.

Dube, B. & Ndaba, X. P. (2021). Educating progressed learners in times of COVID-19: How can bricolage help? *Research in Social Sciences and Technology*, 6(2), 22-36. <u>https://doi.org/10.46303/ressat.2021.9</u>

Creswell, J. W. (2016). *First steps in research* (2nd ed.). Van Schaik.

- Fritz-Stratmann, A., Ehlert, A., & Klusener, G. (2014). Learning support pedagogy for children who struggle to develop the concepts underlying the operations of addition and subtraction of numbers: The "Calculia" programme. *South African Journal of Childhood Education*, 4(3), 136-158. https://doi.org/10.4102/sajce.v4i3.232
- Kroflič, R. 2019. The pedagogical importance of stories and narrative knowledge. https://www.researchgate.net/publication/334084066_Robi_Kroflic_The_Pedagogical_ Importance_Of_Stories_And_Narrative_Knowledge
- Legotlo, M. W., Maaga, M. P., & Sebego, M. G. (2002). Perceptions of stakeholders on causes of poor performance in Grade 12 in a province in South Africa. *South African Journal of Education, 22*(2), 113-118.

https://www.ajol.info/index.php/saje/article/download/24883/20560

Letshwene, M. J. (2019). *Key generic curriculum factors affecting Grade 12 learner performance: A multiple case study of South African secondary schools* [Doctoral dissertation, University of South Africa].

https://uir.unisa.ac.za/bitstream/handle/10500/25521/thesis_letshwene_mj.pdf

- Lumadi, M. W. (2014). Lacking the learner-centred approach in mathematics: A curricular paradigm. *International Journal of Educational Sciences, 7*(3), 783-788. http://dx.doi.org/10.1080/09751122.2014.11890241
- Oktavianty, E., Haratua, S., & Anuru, M. (2018). The effect of remediation on reducing misconception: A meta-analysis of student thesis on physics education. *Journal of Physics Conference Series, 1013*. https://iopscience.iop.org/article/10.1088/1742-6596/1013/1/012039
- Peterson, R. L., O'Connor, A., & Strawhun, J. (2014). Academic supports & tutoring 1-9. Strategy brief. University of Nebraska. https://www.researchgate.net/publication/316098272_Academic_Supports_and_Tuto ring Strategy Brief
- Pritchard, A. & Woollard, J. (2010). Psychology for the classroom: Constructivism and social learning. Routledge.Pule, G. (2020). School effectiveness and effective Mathematics teaching: Towards a model of improved learner outcomes [Doctoral dissertation, North-West University. Potchefstroom].