

Tackling Learning Challenges in the Senior Phase

Zenex Foundation has supported programmes in the Senior Phase for several years focusing on both English and Mathematics. Various projects and interventions have revealed significant challenges in the phase that are both structural and content-specific. The impact of these challenges affects learning outcomes generally and, in particular, enrolments in key subjects in the Further Education and Training (FET) Phase such as Mathematics and Science, which are gateway subjects to scarce-skill careers.

Supporting the Senior Phase was a deliberate strategic choice for Zenex in the 2019-2025 strategy period. Previously, Zenex worked in the FET Phase directly with learners. While initiatives impacted individual learners positively, projects were not systemic and therefore had limited impact.

Making the Case for Working in the Senior Phase

Why Senior Phase?

The rationale is that, if Mathematics backlogs are addressed in the Senior Phase, more learners will take Mathematics to Grade 12. English is a necessary condition for academic success as the predominant Language of Learning, Teaching and Assessment (LoLTA), hence the additional focus on English.

Drawing on a range of pilot projects carried out by Zenex, evidence has emerged which contributes to the conversation about learning challenges in the Senior Phase. Data from external sources mirrors what Zenex has found on a small scale in pilot projects. The 2019 round of the Trends in International Mathematics and Science Study (TIMSS) indicates that South Africa continues to be one of the lowest performing countries in Mathematics and Science, including in Grade 9¹. Just 41% of Grade 9 Mathematics learners and 36% of Science learners reached the low benchmark. Similarly, the Western Cape Education Department's annual systemic test results for 2023 reflect a 20.5% pass rate in Mathematics in Grade 9 and a 51.6% pass rate in Languages².

There is a clear need to address learning challenges evident in the Senior Phase. However, the phase is a particularly neglected area of the education system. While work in the Foundation Phase is critical to establish a solid academic foundation, significant focus on the Foundation Phase at the expense of other phases has led to a lack of awareness and understanding of the unique challenges and needs within the Senior Phase. Prior to addressing the learning challenges impacting the Senior Phase, a common understanding of these challenges must be established, as well as shared language to discuss the nature of learning backlogs, an area of particular concern in the phase.



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Critical Focus Areas for Impact

What then are the key issues and levers for tackling learning challenges in the Senior Phase? Evidence from Zenex's projects indicates that a curriculum review, learner support and teacher development are focus areas that could produce the greatest impact.


Curriculum

It is well established that the Curriculum and Assessment Policy Statement (CAPS), and subsequent Annual Teaching Plans (ATPs), are comprehensive and ambitious in design. It is also well known that covering all the curriculum set out in the policy documents is difficult due to the number of actual teaching days, once time for assessments, extra-curricular activities and school events has been deducted. The number of topics, activities and skills is too extensive for the available time, which contributes to poor learning outcomes in the Senior Phase³.

Learning Backlogs


Despite the phenomenon of learning backlogs being readily accepted in the sector, the nature of these backlogs at the various stages of the system needs to be more clearly articulated. Furthermore, varying reasons for the cause of learning backlogs exist, which also requires clarification.

Some point to insufficient curriculum coverage as the root cause of backlogs, while others suggest that poor quality teaching is what leads to backlogs. Other reasons for backlogs include the progression policy in schools and lack of exposure to resources. In addition, learners in South Africa enter the schooling system with developmental backlogs due to their socioeconomic status which impacts key cognitive skills required in academic settings.



In Mathematics specifically, topics are hierarchical in that they build on each other. Therefore, knowledge of the sequence, process or steps needed with a particular topic is a prerequisite for new content. On the other hand, language learning tends to be iterative, in that similar skills are developed across the education system but at more nuanced and sophisticated levels as the years progress.

Another way in which learning backlogs may develop is as a result of the LoLTA. Learning backlogs related to language are particularly difficult to disentangle due to the interrelated nature of language use, literacy and content areas. The LoLTA and First Additional Language, often English, revolves around concepts of learning about the language, learning through the language and learning using the language. Poor proficiency levels in both home language and English mean that learners are not prepared for the academic demands of later grades, which impacts both Languages subjects as well as content area subjects such as Mathematics and Natural Science.



Zenex has conceptualised learning backlogs as foundational knowledge and skills that have not been mastered sufficiently to allow learners to progress at grade level. The skills are foundational in that they are essential building blocks upon which subsequent knowledge is built. Learning backlogs are present across the basic education sector, though they may vary in nature at different levels of the system or the combination of factors that result in backlogs may vary across the system. New backlogs can emerge at later stages of the education system, even when previous backlogs have been addressed through interventions. It is in the Senior Phase that the true extent of unremediated backlogs emerges. The work of addressing learning backlogs is therefore continual.



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Contextual Factors

Challenges in the Senior Phase extend beyond the content classroom in that structural issues exist which also impact learning outcomes. The overwhelming focus on Matric learners means that learners in lower grades bear the brunt of initiatives to prioritise Matric performance such as movement of teachers across grades, mismatched placement of teachers in the Senior Phase to fill posts, and even time off of school due to the need for additional classrooms during Matric exams in order to fulfil the DBE's requirements for NSC examination protocols⁴.

Another contextual factor often cited is the place of Grade 7 as an exit year from the primary school. Some feel that less attention is paid to these learners as there is a sense that the schools' responsibility towards this group of learners will soon end and therefore extensive support initiatives are not worthwhile. Grade 7 therefore does not receive the attention it should and alignment with Senior Phase interventions is disjointed as they would have to extend across two different types of schools.

Despite these considerable barriers, many opportunities and leverage points are also on offer to learners in the Senior Phase. Greater independence and agency characterise learners in this phase. They are aware of their role in their own academic success and many learners are self-aware and motivated to improve their academic performance as a result. Furthermore, interventions and resources to support learning can be mediated outside of the classroom as learners are able to self-direct their learning, manage their own transport arrangements, and may have access to devices which can be used for learning purposes. Another positive development is increased attention from the DBE and provincial education departments in the Senior Phase, with some interventions already being carried out and others in the pipeline.

Considerations for Developing Solutions

Several considerations should be borne in mind when developing potential solutions to learning challenges in the Senior Phase.



Explore the possibility of more time to address both limited curriculum coverage and learning backlogs

This may manifest as a longer school day, but implications for adopting such an approach would have to be weighed up, including the financial and human resources factors.



Consider extra time outside of the school timetable

This is needed to deal with learning backlogs as it is very difficult to address backlogs in the classroom during ordinary teaching due to the high level of differentiation and intensive support required. Furthermore, initiatives to address learning backlogs cannot be more of the same curriculum – support must deal with foundational skills.



Perform a curriculum review

This is advisable, taking into account the overly ambitious breadth and depth of the Senior Phase curriculum.



Think about language in education (particularly in the Senior Phase) more widely

Language teachers cannot be the sole party developing language and literacy in schools. All teachers should actively develop disciplinary literacy in their specific domain, while simultaneously developing academic literacy more broadly. This requires training for teachers on how to develop literacy skills in the high school.



Address structural issues

This includes placing good teachers in Grades 8 and 9, not moving teachers around, not prioritising the Matric year at the expense of Senior Phase curriculum time, and addressing the lack of training for teachers to deal with foundational skill gaps.



Explore the potential of educational technology

Educational technology has potential in that it can provide the highly differentiated, personalised support that learners in this phase require, and the reach of the number of learners who can be supported is far higher than a teacher working alone.

The Senior Phase is a crucial but neglected component of the education system. It is time to pay greater attention to this key link to the FET Phase and beyond.

Pilot Descriptions

Learnings described in this article were drawn from four main pilot projects:

1. A school-based pilot targeting the teacher in four provinces with a focus on English and Mathematics.
2. A pilot targeting learners with a focus on Mathematics which utilised edtech.
3. A school-based project targeting English, with two components:
 - Teacher-focused pilots in the Eastern Cape and Western Cape,
 - Learner-focused pilots in Gauteng and KwaZulu-Natal.
4. A school-based pilot currently underway, targeting the teacher and utilising edtech, with a focus on Mathematics.

Endnotes

- 1 Reddy V., Winnaar, L., Arends, F., Juan, A., Harvey, J., Hannan, S., Isdale, K. 2022. *The South African TIMSS 2019 Grade 9 Results*. Massachusetts: International Association for the Evaluation of Educational Achievement.
- 2 Western Cape Education Department. 7 February 2024. "2023 systemic test results show improvement across all school phases". Accessed on 21 August 2024. Available URL: <https://wcedonline.westerncape.gov.za/news/2023-systemic-test-results-show-improvement-across-all-school-phases>.
- 3 Christie P (ed.) 2022. *Perspectives on Learning Backlogs in South African Schooling*. Johannesburg: Zenex Foundation.
- 4 These issues surfaced during interviews with teachers and learners in Zenex's Senior Phase EFAL Backlogs project.