



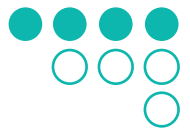
Infusing Competencies into Foundation Phase Literacy

The Competency-based Learning Programme



POWERED BY:





Introduction



In our complex and fast-changing world, there is increasing acknowledgement that formal education systems globally are not adequately preparing young people for life after school (Fadel et al., 2015), and that schools need to foster a breadth of competencies that will enable young people to better navigate an uncertain future (Winthrop, 2018). While the Brookings Institution found that the current South African curriculum contains many of these social, emotional, and cognitive competencies, it highlighted a number of challenges regarding the deliberate and systematic implementation of the competencies in practice (Care et al., 2017). In this context, the NECT EdHub seeks to explore how we can better equip learners and teachers in South African public schools with the knowledge, skills, values, and mindsets needed for success in the 21st century and beyond. The EdHub exists to promote, inform, and facilitate education programme innovation by increasing the speed and agility of learning about policies and practices relevant to education for a changing world. This work primarily involves iterative **Research & Development** with a small sample of public schools, and **Advocacy** within the broader education sector around the future of education.

The **Sandbox Schools Project** is the EdHub's flagship research project, that trials approaches to competency-embedded education in South African public schools. The aim of the Sandbox is to test these teaching and learning practices within the context of a 'typical' public school in order to gather substantial evidence on which practices and models are best suited to the South African schooling system. There are 11 schools participating in the Sandbox Project (10 in Waterberg District, Limpopo and 1 in Soweto, affiliated to the University of Johannesburg). These are quintile 1-3 schools that have volunteered to be part of the project for its duration.

Introducing the Competency-based Learning Programme (CLP)



As part of the ongoing work to understand how to deliberately infuse social, emotional, and cognitive competencies into the existing South African schooling curriculum, the EdHub designed and launched the Competency-based Learning Programme (CLP) in Grade 1 Home Language in 2020.

The CLP is a structured learning programme that seeks to support teachers in deliberately developing both foundational literacy skills and competencies for a fast changing world through content and pedagogy.

The CLP seeks to bridge the gap between where the system currently is and where we believe it could be, in terms of purposeful competency development in the classroom. Drawing on research about changes in teachers' behaviour and attitudes over time (Guskey, 1986), the programme embeds specific competencies into a structured, CAPS-aligned tool that many public school teachers are familiar with (structured learning programmes – SLPs), thereby providing teachers with the necessary scaffolding to deliberately infuse these competencies into their teaching.

SLPs have experienced positive results in recent years as an approach to improving classroom practice and learner outcomes (Department of Basic Education, 2017; Fleish et al., 2016). The CLP incorporates these evidence-based literacy methodologies and highlights how these pedagogies promote the development of selected competencies like critical thinking, metacognition, ethics, and creativity. It also introduces new routines, methodologies, and themes which are deliberately designed to develop the competencies.



The Programme revolves around a structured weekly routine, which is designed to develop literacy skills outlined in the curriculum and address the twelve competencies identified below:

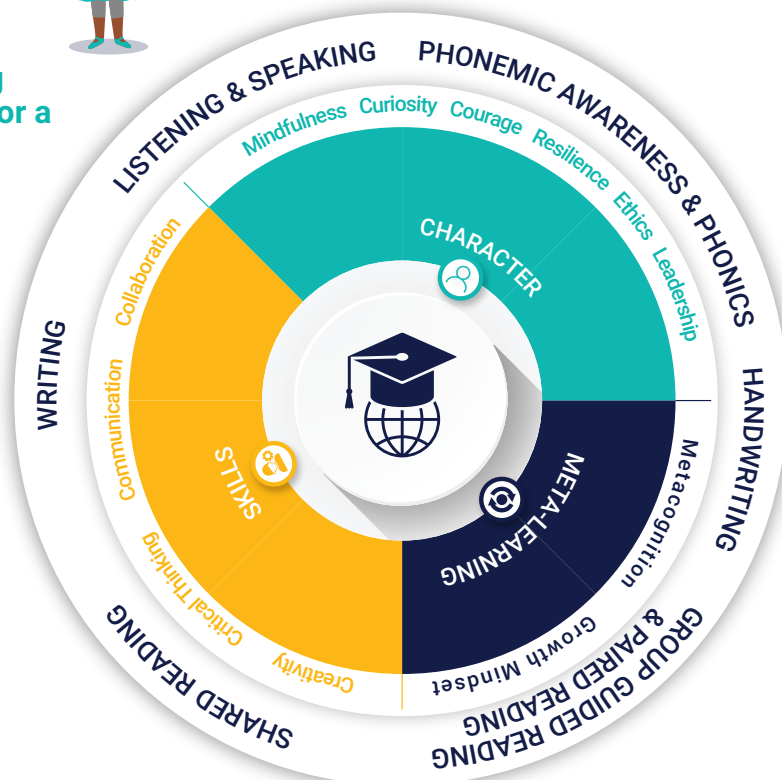


Figure1: Competency-based Learning Programme Framework for Grade 1 Home Language



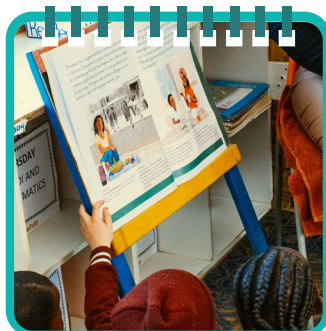


Design and approach of the CLP



The CLP is made up of the following components, based on the design of other successful structured learning programmes:

Materials



Big Book of themed stories per term



Detailed lesson plans



Management document for teachers to plan & monitor curriculum coverage



Worksheet Pack of independent reading activities for learners



Resource Pack, including flash cards and images aligned to the stories



Classroom charts

- **Training:** Quarterly training for teachers on how to implement the methodologies
- **Coaching:** Light-touch coaching support through classroom observations and feedback (1-2 coaching visits per term, together with WhatsApp support when required)

Each story and activity in the CLP is designed with the dual imperatives of literacy development and competency development in mind, and these aspects of the programme are emphasised in training.

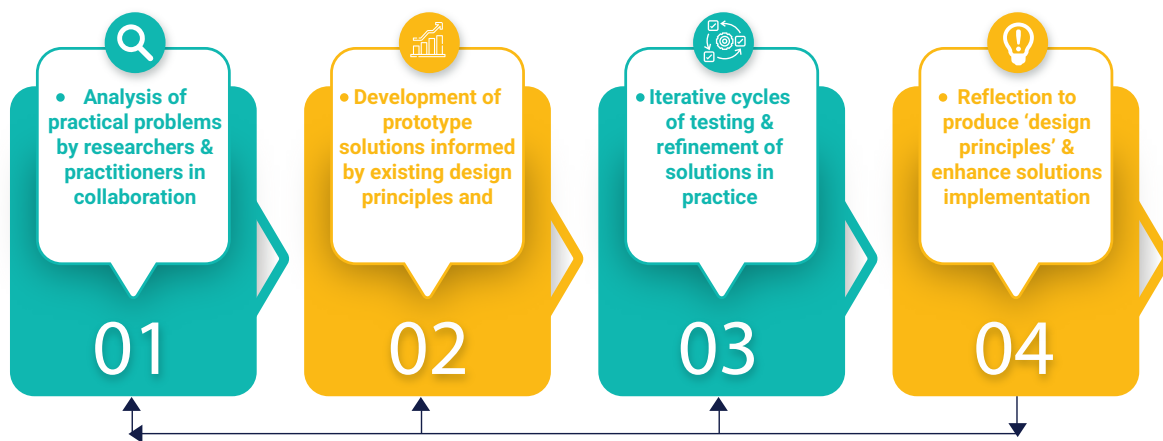


Design-based Research approach

The CLP is being researched in collaboration with the University of Johannesburg's Faculty of Education, using a design-based research (DBR) approach. This approach is informed by literature from the learning sciences and allows for deep research of an exploratory nature through its focus on iteration and the rigorous documentation of process. DBR enables the simultaneous design and testing of innovations, as opposed to more controlled experimental approaches which require that an intervention be designed before it can be tested. As such, the DBR process has embedded reflection, documentation, and iteration loops which enable short learning cycles and feedback to constantly adapt and improve design (Barab, 2014).

In the Sandbox Project, this entails iteratively designing, testing, researching, and refining interventions over relatively short periods of time to understand their potential to develop competencies for a changing world in teachers and learners.

Figure 2: Design-based Research process



Impact of COVID-19

It is important to acknowledge the role that the ongoing COVID-19 pandemic has played in shaping experiences in the classroom over the past year and a half. While the CLP was designed and launched in Term 1 2020, the pandemic and lockdown measures severely disrupted the first year of research and implementation so that many of the planned training and data collection activities could not take place. In addition, the prolonged implementation of rotational timetabling for social distancing has had an adverse effect on teachers' abilities to deliver the curriculum. Studies from other provinces suggest that foundation and intermediate phase learners in resource-constrained schools may have lost 50-75% of a year of learning in 2020 (Mohohlwane et al., 2021).

The impact of this disrupted learning was a recurring theme in feedback from the CLP teachers in 2021, many of whom highlighted the challenges they faced in trying to ensure that learners grasp curricular content despite only attending school on alternate days or weeks. The additional psychosocial burden of the pandemic on teachers and learners should also be taken into account when contextualising these experiences and insights from the classroom.



Research and Critical Review



Critical Review Process

As part of the ongoing iterative process outlined above, the CLP has undergone a series of critical reviews and is being researched to understand how teachers are experiencing and implementing the programme. The critical review process included the following phases:



Phase 3

Third year Bachelor of Education students at the University of Johannesburg Review to assess the embedding of competencies in relation to the Grade 1 Home Language curriculum.

Phase 1

Center for Curriculum Redesign (CCR): Experts in 21st century competencies Review to assess how well the programme deliberately and systematically embeds competencies into content and pedagogy.



Phase 2

South African Foundation Phase teachers: Review by three Foundation Phase teachers from a variety of schools (high-fee independent, low-fee independent, high functioning)



Phase 4

Consolidation of feedback and revisions

Emerging Insights from Educator Experiences



The following insights are drawn from research conducted with grade 1 teachers at the Sandbox Schools in 2020 and 2021. There are 11 schools participating in the Sandbox Project (10 in Waterberg District, Limpopo and 1 in Soweto, affiliated to the University of Johannesburg); these are quintile 1-3 schools that have volunteered to be part of the project for its duration. The key objective of this research is to understand teachers' experiences in implementing the Competency-based Learning Programme (CLP). The research included the following:

- Pre and post-training assessments of teachers' knowledge related to the CAPS Home Language curriculum and the CLP training content in Term 1 2021
- Post-training feedback surveys in 2020 and 2021, which focused on teachers' experiences of the programme
- Informal verbal feedback collected by school-based project coordinators in 2021, based on a set of questions

Moreover, a Master's student at the University of Johannesburg is conducting more in-depth research to explore how teachers understand and enact the scripted Home Language lessons that incorporate competencies for a fast-changing world in the programme. The research findings will be shared once there has been sufficient analysis of the data collected in 2021.

The findings and insights presented below are being used to guide revisions to the CLP and to make recommendations regarding their evolution and adoption at a wider scale.



1. The programme is well-designed and delivered

Feedback from teachers in both 2020 and 2021 indicates that they appreciate the quality and design of the materials and training they receive. This can be seen in responses to open-ended questions in 2020's surveys and in verbal feedback to school coordinators in 2021, for example:



"The CLP materials are easy to understand and to use in lesson preparation and in using in class"

(Foundation Phase teacher, Limpopo, 2021)

"The workshop was useful because it was practical and I learn how to use the materials provided & I saw all my mistakes which I have been practicing"

(Foundation Phase teacher, Limpopo, 2020)

"Lesson plans, tracker were very useful and easily to understand since according to my opinion were streamlined to make my job more easily and understandable"

(Foundation Phase teacher, Limpopo, 2020)

While teachers also provided feedback on specific errors in the materials, such as spelling errors or missing elements, the overarching sentiment expressed was appreciation for the programme.





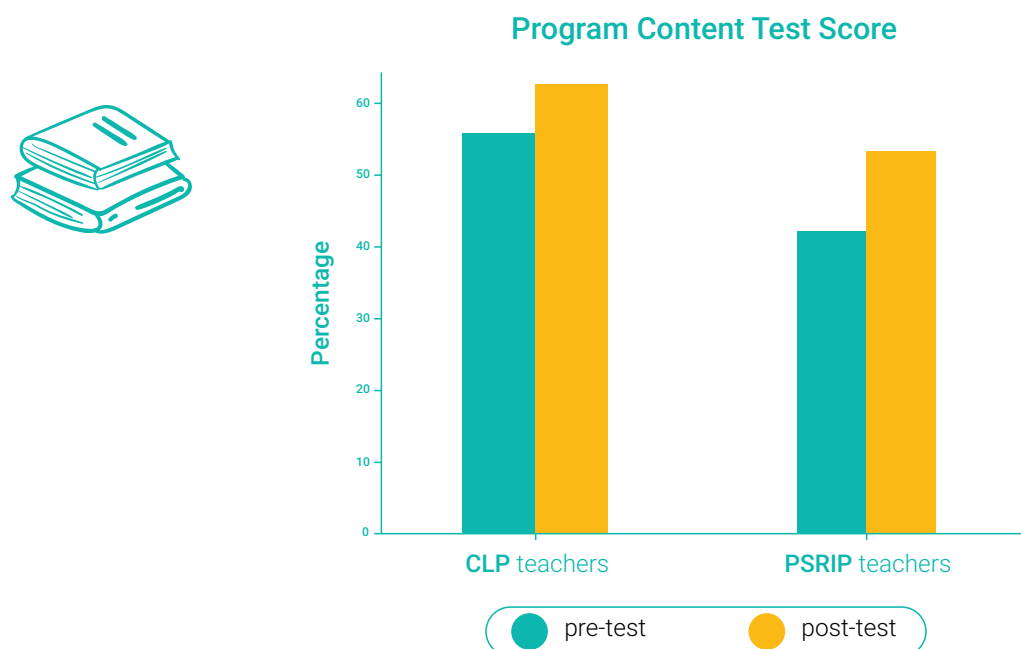
2. Teacher's pedagogical content knowledge (related to literacy) has improved

In Term 1 2021, teachers completed a pre- and post-training assessment which was developed to test their knowledge of both Home Language curriculum content and the CLP training content. The test was developed using guidelines which are also used in the NECT's Primary School Reading Improvement Programme (PSRIP) - a national structured learning programme in Home Language that aims to improve literacy instruction. The guidelines used are as follows:

SECTIONS	QUESTIONS
Section A: Question 1-12: (Matching columns, multiple choice and short questions)	Questions based on the CAPS document, the strategies used in teaching EFAL, terminology, time allocation and the principles of grouping learners. (12 marks, or 40% of the total)
Section B: Question 13-23: (True and false questions and short descriptive questions)	Questions about the content, principles and application of the CLP, including daily activities, shared reading, group guided reading, phonemic awareness and phonics. (18 marks, or 60% of the total)

Pre- and post-training test results indicate an improvement in teachers' knowledge of CLP methodologies and CAPS curriculum content, which is comparable to results from the PSRIP (NECT, 2020). However, as with other programmes, the improvements are off a relatively low base of knowledge. In general, the CLP teachers' test scores are over 10 percentage points higher than the pre and post-test results of Foundation Phase teachers in the PSRIP. This is an indication that the teachers at the Sandbox Schools displayed slightly better pedagogical content knowledge than the national average, both before and after training.

Figure 1: Program Content Test Scores of Teachers in the PSRIP and CLP



Note: 1. Program Content test score is the total score on teacher's knowledge of CLP/ PSRIP training content.
2. Pre-test and post-test refer to results before and after the training program, respectively.



3. Teachers need time and practice to master the literacy methodologies and to grasp an understanding of the competencies

Feedback from teachers suggests that they understood and appreciated the guidance relating to the implementation of literacy routines and methodologies, to a greater extent than the competency-infusion aspects of the programme. For example, when asked what they found most helpful about the training, the majority of teachers in Limpopo mentioned guidance around reading (both shared and group guided reading).



Teachers also seemed to have a limited understanding of what the CLP aims to achieve. When asked what they understood the CLP to be, teachers' answers did not point to a distinct theme:

- "Programme to improve reading and writing skills"
- "The programme constitutes of shared reading, group guided reading, writing and the paired independent work"
- "It focuses on learners activities"

Some answers indicated a vague understanding:

- "Lifelong learning ...What you know"
- "Is the programme that guide a teacher how to teach and apply different method in the classroom"

Only four of the Limpopo teachers mentioned skills, knowledge and learner-centred approaches to teaching, although none directly referenced competencies for a changing world:

- "Approach that allows learners to master skills at their own pace...it deals with skills and knowledge"
- "Given special wisdom. Strength, interest, approach...needs and knowledge to be competent in everything when it comes to learning as a whole irrespective of kind of learner you are faced with"
- "This is a research project that focuses on skills and knowledge and trying to bring out the best of the learners"

In contrast, both teachers at the research school in Soweto displayed a deeper grasp of the CLP and one explicitly mentioned 21st century skills (a term often used interchangeably with 'competencies for a changing world'):

- "Its focus is on catering for the learners multiple intelligences and equipping learner with skills for 21st century embedded in holistic learning"
- "Learning programme that is based on learner demonstrating that he/she have acquired the knowledge and skills that he/she is expected to learn"

When asked about which of the learnings they would employ in their teaching practice, none of the Limpopo participants mentioned 21st century skills and competencies. While there are indications from informal coaching observations that some teachers are improving their practice of the programme's core methodologies, which incorporate competencies, they demonstrate a superficial understanding of how the competencies are incorporated in the programme and what they mean. This preliminary finding could suggest that more examples, practice, explicit training and/or coaching, and time are needed for teachers to grasp an understanding of the competencies.





4. The materials systematically incorporate competencies – but this could be made more explicit

Feedback from numerous critical reviews suggest that the competencies for a changing world have been deliberately and systematically incorporated into the programme. However, there were also recommendations that the competency-infusion aspects of the programme should be made more explicit, to support teachers' understanding of this key aspect of the programme. The feedback has led to the following revisions and additions to the programme:

- Explicit 'tagging' of competencies and sub-competencies in revised lesson plan materials.
- Development of dual framework, outlining how literacy methodologies and competencies work together, for use in training and coaching.
- Development of competency-focused training videos, explaining each competency in more depth and modelling how it can be developed in a Foundation Phase classroom.



5. Pacing is a challenge

Many teachers have found that it is difficult to keep up with the programme – a challenge that is commonly experienced by teachers across Structured Learning Programmes when first implemented (Piper & Dubeck, 2021). The teachers suggested things like shortening the big book stories, or reducing activities and new sounds:



"Time allocated to CLP routines is not a true reflection of what is feasible in practice"

(Limpopo school coordinator field notes)

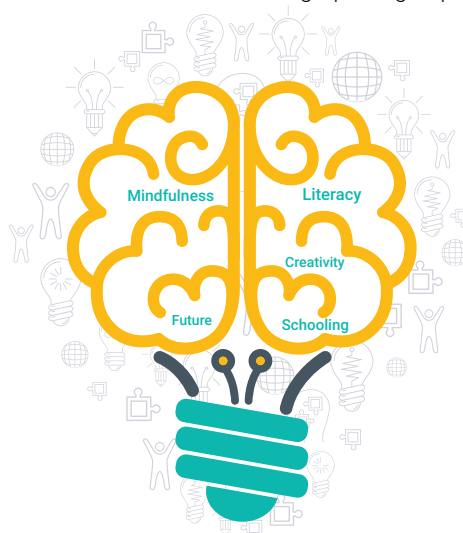
"Worksheets – I would suggest that you give one activity per day instead of two because our learners are slow"

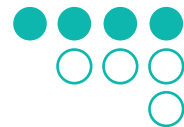
(Limpopo school coordinator field notes)

"Teachers feel that doing two phonics per week is burdensome for the learners. The CLP doesn't allow for repetition to emphasize the phonics concept for better grasping. One phonics per week should work better"

(Limpopo school coordinator field notes)

Teachers may be experiencing this challenge for a range of reasons, including difficulties mastering the routines and methodologies, understanding the cyclical nature of the programme, managing time, and managing classroom dynamics in large classes. Therefore, strategies such as coaching/training are actively employed to provide teachers with decreasing levels of scaffolding over time and assist them to manage pacing expectations.





6. Impact of COVID-19

The challenges mentioned above have been exacerbated by the COVID-19 pandemic and rotational timetabling, which has drastically reduced the amount of teaching time available to cover the curriculum – even though it has been revised to focus on essential content. Teachers have repeatedly highlighted that they feel overwhelmed about teaching during the Covid19 pandemic, this potentially has a detrimental effect on their ability or appetite to learn and implement new pedagogical approaches. Another common theme, observed in the sandbox coordinators' field notes, was that rotational timetabling owing to COVID-19 is resulting in learners entering Grade 1 from Grade R without being school-ready, and learners in Grade 1 falling behind:

- Challenges posed by skills gaps in Gr. R (2020 – COVID) are beginning to be visible in Gr. 1. For example: Gr. 1 teachers say that there is a lack in fine motor skills in Gr. 1 learners. They subscribe this to learners not having had enough practice in Gr. R in the previous year
- Teachers express that the effects of COVID are still visible in learners in class. This sets them and learners back in completing their work in time and understanding the concepts taught. Again, this affects the pacing of the curriculum
- Class attendance schedule delays progress because some learners skip school and others come back having forgotten what was done in that week

7. Indications that mindfulness has been successfully implemented and appreciated by teachers

Feedback from teachers in the programme, as well as insights from a school-wide Mindfulness intervention implemented in 2020, indicate that mindfulness exercises are relatively simple to incorporate into a classroom routine, and that they are enjoyed by learners and teachers. For example, when asked by school coordinators to identify what was working well about the CLP, many teachers mentioned mindfulness:

- Mindfulness – The learners enjoy doing the exercises
- Mindfulness activities are helping a lot in preparing the learners mentally for class
- Mindfulness activities help the learners to relax and concentrate. It relieves stress from the learners.
- Mindfulness has also improved communication between the teachers and the learners. The learners find it easier to open up to the teachers now

This feedback suggests that, although teachers may not necessarily demonstrate a deep understanding of how the competencies for a changing world are infused into the CLP, they are indeed practicing and appreciating some of the methodologies designed to develop these competencies, such as Morning Mindfulness.

Conclusion

Insights from research conducted in 2020 and 2021 indicate that teachers are making progress regarding their pedagogical content knowledge related to literacy. Furthermore, the teachers' implementation of the routines and methodologies in the CLP is improving. However, they are also experiencing challenges covering the curriculum at the prescribed pace – a systemic challenge that has been exacerbated by the COVID-19 pandemic and rotational timetabling. The teachers also seem to have a limited understanding of how and why the CLP infuses competencies for a changing world into teaching practice.



Key insights from Critical Review and Research



Insights from the critical review and research with Sandbox teachers are being used to make improvements to the programme and to inform broader policy recommendations around the future of education in South Africa. These insights are summarised below:

The programme is well-designed and practical:

Feedback from teachers indicates that they appreciate the structure of the materials and the practical training they receive.

Teachers' pedagogical content knowledge (related to literacy) has improved:

Pre and post-training test results indicate an improvement in teachers' knowledge of literacy methodologies and CAPS curriculum content, which is comparable to results from other Home Language structured learning programmes (NECT, 2020). However, as with other programmes, the improvements are off a relatively low base of knowledge. CLP teachers showed an overall improvement in average test scores from 58% in the pre-test to 62% in the post-test, and from 56% to 66% in the section directly related to the training content.

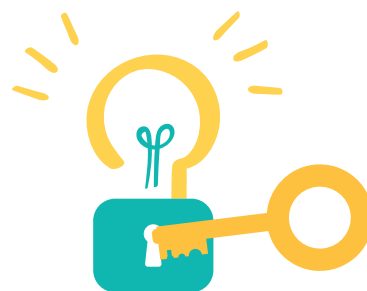
Teachers need time and practice to master both the literacy methodologies and grasp an understanding of the competencies:

While there are indications that some teachers are improving their practice of the programme's core methodologies, which incorporate competencies, they demonstrate a superficial understanding of how the competencies are incorporated in the programme and what they mean. This preliminary finding could suggest that more modelling, practice, explicit training and/or coaching, and time are needed for teachers to more deeply grasp an understanding of the competencies.

The materials systematically incorporate competencies – but this could be made more explicit:

Feedback from numerous critical reviews suggest that the competencies for a changing world have been deliberately and systematically incorporated into the programme. However, there were also recommendations that the competency-infusion aspects of the programme should be made more explicit, to support teachers' understanding of this key aspect of the programme. The feedback has led to the following revisions and additions to the programme:

- Explicit 'tagging' of competencies and sub-competencies in revised lesson plan materials
- Development of dual framework (figure 1 above) outlining how literacy methodologies and competencies work together – for use in training and coaching
- Development of competency-focused training videos, explaining each competency in more depth and highlighting how it can be developed in a Foundation Phase classroom



Appreciation for literacy support:

Feedback from teachers suggests that they understood and appreciated the guidance relating to the implementation of literacy routines and methodologies, to a greater extent than the competency-infusion aspects of the programme. When asked what they understood the CLP to be, the vast majority of responses mentioned support for developing literacy while only one teacher mentioned 21st Century competencies.

Pacing is a challenge:

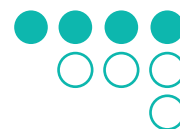
Many teachers have found that it is difficult to keep up with the programme – a challenge that is commonly experienced by teachers across similar structured pedagogy programmes (Piper & Dubeck, 2021). Teachers may be experiencing this challenge for a range of reasons, including mastering the routines and methodologies, understanding the cyclical nature of the programme, managing time, and managing classroom dynamics in large classes. These factors have also been exacerbated by the COVID-19 pandemic and rotational timetabling, which has drastically reduced the amount of teaching time available to cover the curriculum – even though it has been revised to focus on essential content.

Indications that mindfulness has been successfully implemented and appreciated by teachers:

Feedback from teachers in the programme, as well as insights from a school-wide Mindfulness intervention in 2020, indicate that mindfulness exercises are relatively simple to incorporate into a classroom routine, and that they are enjoyed by learners and teachers.



Recommendations



Based on the insights articulated above, we propose the following recommendations for the CLP going forward:

Add assessment to the CLP - incorporate assessment of competencies to the prototyping process to better understand how we might integrate these adaptations into SBA in Foundation Phase.

Consider aligning CLP with GEC - given overlap between the GEC's intentions of assessing 'General Capabilities' (aka competencies) there is opportunity to pilot the CLP in selected subjects in grade 9 to align with these assessment outputs.

Expand CLP prototype to selected grades - consider rolling the CLP out to all Foundation Phase grades for Home Language, to build on the competencies being developed in grade 1.

Expand CLP prototype to selected subjects - consider prototyping the CLP in other subjects.

Evolve competency framework - adapt and strengthen competency framework based on feedback from local teachers and prototyping experiences.

Localise terminology - develop shared terminology for the competencies in local languages.

Competency videos - develop competency-focused training videos in local languages for the Foundation Phase.

Programme name change - consider changing the name of the intervention from "Competency-based Learning Programme" to "Competency-embedded Learning Programme" - a more accurate description of how competencies are infused into existing subjects.

Pilot CLP - continue to learn about the CLP in practice by expanding the prototype into a larger pilot – perhaps with schools that have experienced success in implementing traditional structured learning programmes – to understand implementation and outcomes at a larger scale and in a variety of contexts.

