1st Interim Report on Piloting of the Curriculum Transformation

August 2024

National Institute of Education

Evidence-based approach towards Seamless Implementation

1st Interim Report on Piloting of the Curriculum Transformation

August 2024

National Institute of Education

■ AUTHOR

Prof. Prasad Sethunga
Director General

Published in August 2024
by the National Institute of Education
Maharagama
Sri Lanka
info@nie.edu.lk
www.nie.ac.lk

ISBN 978-624-5729-28-9

Cover page illustration symbolizes the relevance of the curriculum transformation with the SDGs.

Abbreviations and Acronyms

4.0	Fourth Industrial Revolution
5.0	Fifth Industrial Revolution
ADB	Asian Development Bank
ARH	Applied Resource Hub
DDG	Deputy Director General
DoE	Department of Examinations
G.C.E. (A/L)	General Certification of Education (Advanced Level)
G.C.E. (O/L)	General Certification of Education (Ordinary Level)
ICT	Information and Communication Technology
ILs	Innovation Labs
ISA	In-Service Advisor
MoE	Ministry of Education
NCF	National Curriculum Framework
NCoEs	National Colleges of Education
NEC	National Education Commission
NEGs	National Education Goals
NEPF	National Education Policy Framework
NIE	National Institute of Education
NLCDs	National Learning Competency Domains
NSAF	National Student Assessment Framework
SDGs	Sustainable Development Goals
SESIP	Secondary Education Sector Improvement Programme
SOCE	Sectoral Oversight Committee on Education
STEAM	Science, Technology, Engineering, Arts and Mathematics
STEM	Science, Technology, Engineering and Mathematics
TA	Technical Assistance
TSF	Teacher Standard Framework

Foreword

It is with great pleasure and a deep sense of responsibility that we present this 1st Interim Report on the Piloting of the NCF for the Grades 1, 6, and 10. This initiative marks a significant milestone in the journey of curriculum transformation in Sri Lanka, driven by the NIE.

Education is the cornerstone of national development, and it is imperative that our educational frameworks evolve to meet the dynamic needs of our society. The NCF embodies the principles of authentic learning and inquiry-based learning, aiming to foster critical thinking, creativity, and a lifelong passion for knowledge among our students. This transformation is not merely a change in content but a paradigm shift in how we perceive and deliver education. The piloting phase has been an essential step in this journey, allowing us to gather invaluable insights and feedback from a diverse national sample of 210 schools. Through meticulous observations and rigorous action research studies, we have been able to evaluate the efficacy and impact of the proposed changes in real classroom settings. The data collected during this phase has been instrumental in refining our approach, ensuring that the final framework is robust, effective, and tailored to the needs of our learners.

At the progress review meeting of the piloting held on the 4th of July 2024, the feedback from the principals of the sample schools was overwhelmingly positive, particularly regarding the piloting of the Activity Books and Modules. We administered a survey to gather their honest opinions and comments about the piloting process, and their responses have been incorporated into this report. The survey revealed that the principals viewed this transformation as a timely initiative, eagerly anticipated by the community. Frankly, I was not expecting such positivity from the sample, and I was truly amazed. This encouragement has been a significant motivator for me and the team as we continue the piloting phase towards the full implementation of the NCF in 2025 for the Grades 1, 6, and 10.

As we look towards the full implementation of the NCF in 2025, we remain committed to our mission of providing a holistic and forward-thinking education to every child in our nation. We are confident that this new approach will not only enhance academic outcomes but also equip our students with the skills and competencies needed to thrive in an ever-changing world.

We invite all stakeholders to join us in this transformative journey, as we work together to build a brighter future for our children and our country.

Prof. Prasad Sethunga
Director General
National Institute of Education
Maharagama
Sri Lanka

Message from the Hon. Minister of Education

I would like to extend my heartfelt congratulations to the Secretary to the Ministry, the Director General, and the entire team at the NIE for their outstanding efforts in implementing the piloting of the NCF, despite the significant challenges encountered along the way. Your dedication and resilience in the face of these obstacles have been truly commendable.

From the outset, I have been fully committed to supporting the NIE team in this critical endeavor. It has been my privilege to provide my fullest support, ensuring that the necessary resources and guidance were made available to facilitate this transformative process.

As we look ahead, I am encouraged by the scientific and research-based approach the NIE team has adopted. The interim results of the piloting have already contributed to the enhancement of the first-term Activity Books and Modules, and I am confident that the continued gathering of feedback will be instrumental in ensuring a smooth implementation of the curriculum transformation in 2025.

The findings and recommendations from this piloting process will be invaluable for the final stages of preparation, and I urge all relevant authorities and stakeholders to consider them seriously. The commitment to producing a final report at the end of the piloting process is essential, as it will guide us in making informed decisions that will benefit the future of education in Sri Lanka.

I commend the tireless efforts of everyone involved in this process and look forward to witnessing the positive impact that this curriculum transformation will have on our nation's educational landscape.

Dr. Susil Premajayantha
Hon. Minister of Education
Ministry of Education
Isurupaya, Battaramulla
Sri Lanka

Message from the Secretary to the Ministry of Education

As the Chairperson of the Council of the National Institute of Education, I would like to extend my heartfelt congratulations to the entire NIE team for their unwavering commitment and efforts in conducting the piloting of the NCF, despite the challenges faced. Your dedication to this significant endeavor is truly commendable.

The importance of this curriculum transformation cannot be overstated. It holds the potential to significantly reduce the unskilled population in our country, while offering a seamless array of educational opportunities for all our students. I firmly believe that this transformation addresses several longstanding issues and criticisms, such as the overloaded curriculum, the high-stakes nature of assessments, and the examination-centered approach to teaching and learning. The introduction of new subjects, particularly the Further Learning Areas, is a pivotal step in empowering our children to develop the skills necessary to contribute meaningfully to the sustainable development of Sri Lanka.

As someone who has served as Secretary to multiple Ministries in our nation and as a mother, I fully understand the critical need for this curriculum transformation. The scientific approach taken by the NIE in proceeding with the piloting process, as reflected in this report, provides us with initial results that are invaluable for the ongoing review of the Activity Books and Modules. These findings and recommendations will be essential as we move towards the smooth implementation of these transformations in 2025 for Grades 1, 6, and 10.

This Interim Report is just the beginning, and I would like to request the Director General to continue this research-based data collection throughout the piloting process, culminating in a comprehensive final report. Finally, I want to take this opportunity to commend the tireless efforts of everyone involved in this process. Your dedication is paving the way for a brighter future for our education system and our country.

Ms. J.M. Thilaka Jayasundara
Secretary
Ministry of Education
Isurupaya, Battaramulla
Sri Lanka

Acknowledgements

We extends our deepest gratitude to all those who have contributed to the successful piloting of the curriculum transformation. To the Honorable Minister Mr. Susil Premajayantha, your overall guidance has been a tremendous motivational factor, and we owe much of our progress to your leadership.

Without the careful attention and facilitation by the Secretary to the Minister of Education, Ms. Thilaka Jayasundera, this piloting would not have implemented smoothly. Your faith in us and dedication have been invaluable.

Mr. Anura Disanayake the Secretary to the Prime Minister who chaired the Cabinet Appointed Committee to develop the NEPF has played a pivotal in this exercise and also we would like to thank the team of the Presidential Secretariate for their facilitation.

We would like to express our sincere gratitude to our former Secretaries, Mr. Nihal Ranasinghe and Ms. Wasantha Perera, for playing a crucial role in accelerating the initial stages of the piloting process. Their timely interventions were invaluable, and we take this opportunity to extend our heartfelt thanks for their significant contributions.

Committed contributions of the twenty-five member Cabinet Appointed Committee to develop the NEPF is highly commendable.

Our sincere thanks go to the entire team of MoE officials. The Additional Secretaries, especially from Education Reforms and the Policy Planning and Performance Review, along with the respective Directors, have been truly supportive. Their prompt and timely support during the early stages for budget allocations and maintaining smooth coordination with the school sample is commendable.

We also acknowledge the members of the Academic Affairs Board and the Council. These two committees are the decision-making bodies at the NIE. In this endeavor, the members engaged enthusiastically, ensuring that the piloting process was conducted with utmost dedication and commitment.

We gratefully acknowledge the support in the form of generous funding provided by the ADB and the World Bank. Without their financial backing, this entire process would not have been possible. Their continuous monitoring has effectively contributed to the smooth success of this initiative. The ADB Mission's timely intervention was both rigorous and supportive, and their flexible approach was particularly helpful in continuing our work despite setbacks. The local and international TA teams from ADB provided invaluable support, which was crucial for conducting the piloting meaningfully. Their constructive feedback has imparted many valuable lessons. We also greatly appreciate the continuous encouraging support from

UNICEF and the Child Fund through their direct and indirect activities and the relevant projects.

Special thanks to our local team of facilitators—Lead Economist of the World Bank, Dr. Harsha Athurupana, Principal Social Sector Specialist and the Mission Leader of the ADB, Dr. Uzma Hoque, Senior Social development Officer Mr. Herathbanda Jayasundera, Programme Head SESIP Mr. P.A.S.P. Jayalath and Programme Consultant Mr. R. Karunasiri. Your exceptional roles as liaisons between the Government of Sri Lanka and the higher levels of the donor agencies have been instrumental in this endeavor. The ADB International and Local TA team, in particular, supported the entire curriculum transformation from the point of the designing the curriculum. We record here with our appreciation of their contribution.

Our heartfelt thanks go to the team from the NIE. The six DDGs, Directors, Senior Lecturers, Lecturers and Assistant Lecturers of the respective Faculties have been instrumental in this endeavor. Special recognition goes to the three DDGs Mr. K.R. Pathmasiri, Dr. S.A.D. Samaraweera and Dr. A.D.A. De Silva, who were directly involved in the implementation of the piloting process under very challenging circumstances. Their leadership, along with the efforts of their team members, ensured the smooth conduct of the piloting.

We would like to express our appreciation for the efficient intervention of DDG Mr. K.W.B.M.P. Wijesundera, whose timely efforts ensured the prompt printing of the modules. His dedication has been instrumental in the successful execution of this phase of the piloting.

Our sincere thanks to our council member Prof. Carmen S. Wickramagamage for reviewing the report and Mrs. N.D. Dissanayake and her team for proof reading of the report.

Lastly, we greatly appreciate the continuous commitment of the Director General's Secretary and Staff. Your dedication has been crucial to our progress.

We extend our deepest gratitude to the students, teachers, and principals of the sample schools. This entire piloting has been in your hands, and your participation, cooperation, and enthusiasm have been vital to its success. This achievement is a testament to the power of collaboration and understanding. It is clear that this is not a task that can be accomplished in silos. Success is born from the spirit of collaboration. As we move forward, credit must go to you for this remarkable accomplishment.

Let us continue to work together with the same spirit of cooperation and determination. Thank you all for your unwavering support and contributions.

ADB ASIAN DEVELOPMENT BANK

THE WORLD BANK

unicef for every child

ChildFund Sri Lanka

- *Printing charges sponsored by the unicef Sri Lanka*
- *Illustration charges sponsored by the Childfund Sri Lanka*

Executive Summary

BACKGROUND OF THE NATIONAL CURRICULUM FRAMEWORK

The development of the NCF marks a pivotal moment in the evolution of education in Sri Lanka. Initiated by the NIE, this framework is designed to address evolving educational needs in the 21st century, ensuring that our students are equipped with the necessary skills and knowledge to thrive in a rapidly changing world.

Even though Sri Lanka has made notable strides in education, the country still faces significant challenges in ensuring that education outcomes are relevant to the labour market and meet the needs of the modern world. The current curriculum is often criticized for being content-heavy and overly theoretical, with insufficient emphasis on practical applications and inquiry-based learning.

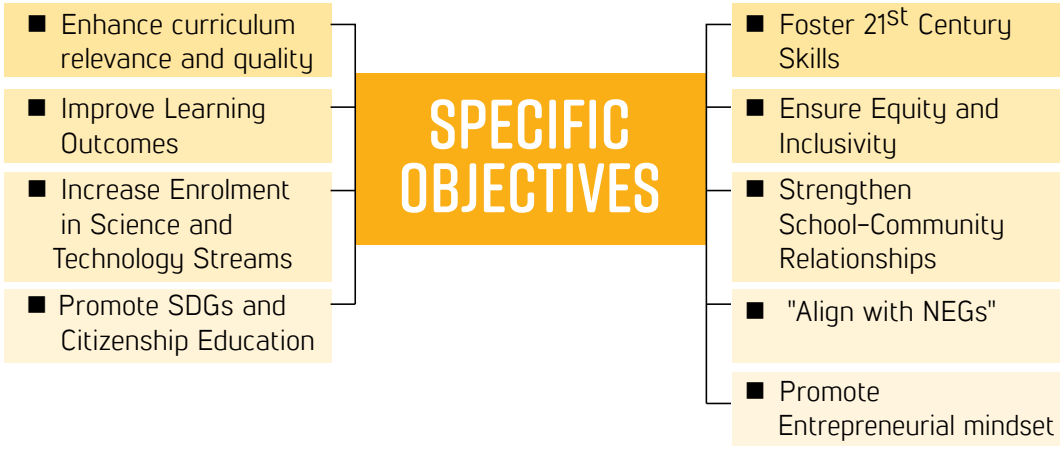
The NCF 2025 is an ambitious reform initiative led by the MoE and the NIE. This transformation seeks to address the existing challenges in the country's education system, particularly in terms of quality, relevance, and equity, with a focus on STEAM subjects.

VISION FOR GENERAL EDUCATION CURRICULUM TRANSFORMATION

A sound education reform movement is always guided by a strong vision based on the needs of the country and its people. A people-oriented education system is manifested by the national curriculum crafted based on the lessons learnt over time, considering the specific national development goals derived in association with the SDGs. The ultimate Goal of the general education system proposed for Sri Lanka finds inspiration from three main concepts - challenges of and beyond the 21st century, sustainable national development and sustainable peace.

GENERAL OBJECTIVE

To lay the foundation to creating a citizen ready for the challenges of and beyond the 21st century, and to contribute to the process of sustainable national development and peace of the country.



SPECIFIC FEATURES OF THE PROPOSED NCF UP TO GRADE 11

The impetus for this transformation stems from a comprehensive analysis of the existing education system, coupled with an urgent need to incorporate modern pedagogical approaches.

Grounded in the principles of authentic learning and inquiry-based learning, the new curriculum aims to foster a deeper engagement with the material, promote critical thinking, and encourage a lifelong passion for learning. This framework represents a significant shift from traditional rote learning methods, emphasizing instead the development of competencies that are essential for personal and societal growth.

- A module-based school credit system (36 credits a term/360 hours)
- Reducing the number of subjects tested at the G.C.E. (O/L) to 7 and categorization of subjects under the area of essential learning as two groups based on the nature of the subject
- More weight on qualitative assessment
- Authentic learning activities powered by blended learning
- Further learning modules addressing regional needs and specializations
- Further learning areas focusing G.C.E. (A/L) and further education
- Introduction of ILs
- Teacher training through ARH

HIGHLIGHTS OF THE NCF

PRIMARY EDUCATION

As part of the transformative vision of the NCF, we are introducing several significant changes to primary education subjects. These changes mark the beginning of a comprehensive transformation starting at the primary level, aimed at enhancing the overall learning experience and better preparing students for future educational stages.

SUBJECT	DESCRIPTION
Mother Tongue	Sinhala/Tamil Language skills of listening, speaking, reading and writing
English Language	Activity Based Oral English and English as a subject from Gr 3 to Gr 5
Second National Language (Tamil for Sinhala medium students and Sinhala for Tamil medium students)	Only to develop oral skills
Mathematics	Pre-math skills, use of numbers, mathematical operations etc.
Religion and Values Education	Buddhism, Saivanery, Catholicism, Christianity, Islam
Elementary Science and Environment related Activities	Integrated with elementary science, Basic technology skills, Environmental Studies
Integrated Aesthetics Education	Singing, Drama and Dancing, Art and handwork
Health and Physical Education	Physical development activities

INTRODUCTION OF ENGLISH AS A SEPARATE SUBJECT:

For the first time, English is being introduced as a separate subject in the primary curriculum. This change underscores our commitment to enhancing English language proficiency from an early age, equipping students with essential communication skills that are crucial in a globalized world.

INTRODUCTION OF AESTHETICS EDUCATION:

We are also introducing Aesthetics Education as a dedicated subject. This addition recognizes the importance of fostering creativity, cultural awareness, and artistic expression among young learners. By integrating arts education into the core curriculum, we aim to develop well-rounded individuals who can appreciate and contribute to the richness of their cultural heritage.

RENAMING AND EXPANDING ENVIRONMENTAL STUDIES:

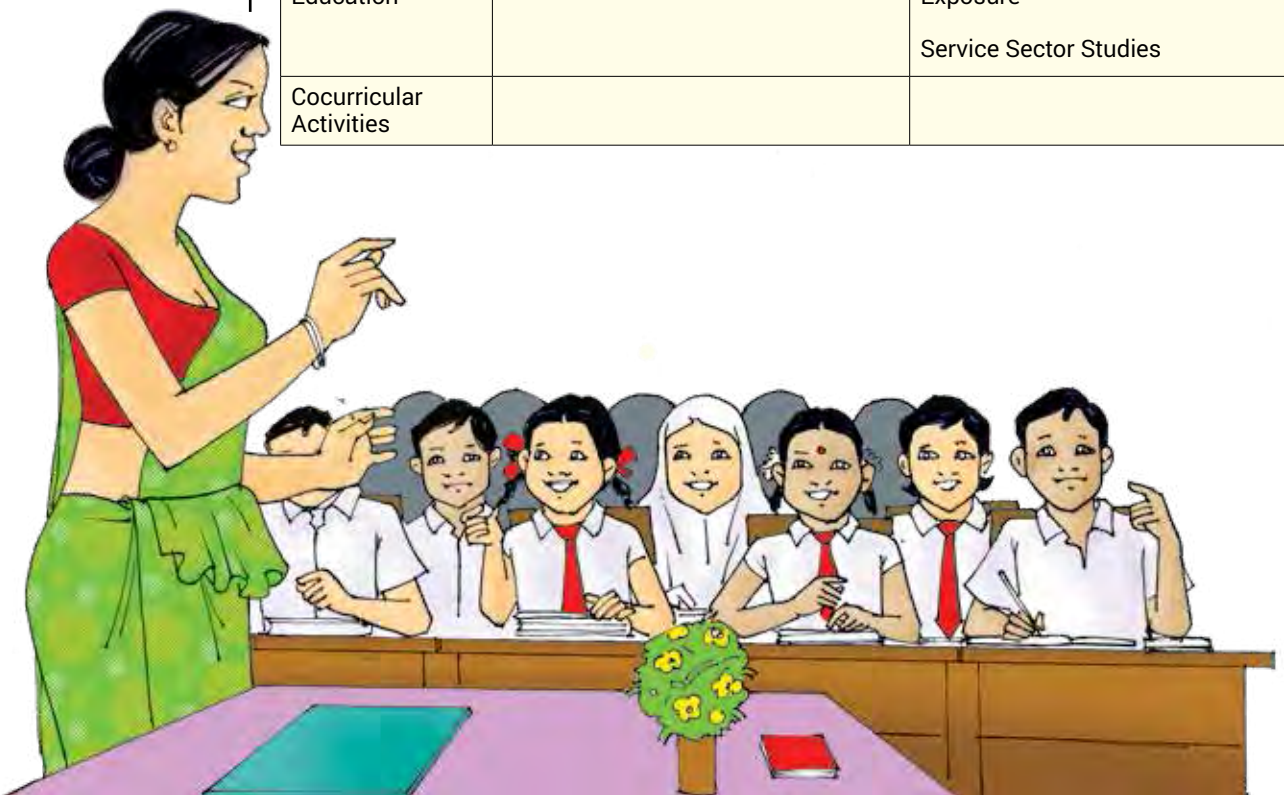
The subject previously known as Environment Related Activities is being transformed and renamed to include Science and Technology. This change reflects our emphasis on providing a more comprehensive understanding of the natural world, scientific principles, and technological advancements. By integrating these elements, we aim to cultivate curiosity, critical thinking, and problem-solving skills in our students.

These new transformations at the primary level are designed to create a robust foundation for lifelong learning. By starting these changes early, we ensure that our students are well-prepared to meet the challenges and opportunities of the 21st century.

JUNIOR SECONDARY EDUCATION

From the Junior Secondary Education the subjects are categorized under Essential Learning Areas and Further Learning Areas.

BROAD LEARNING AREA	ESSENTIAL LEARNING AREAS	FURTHER LEARNING AREAS
Language and Literacy Education	Mother Tongue	Appreciation of Literature Media Studies
	English Language	
	Second National Language	
STEM	Mathematics	Mathematics
	Science	Science
	Health and Physical Education	
	Information & Communication Technology	Information & Communication Technology
	Technology for Life	Applied Technology
Humanities and Social Sciences Education	History	Orientation to World History
	Geography	Global Studies
	Civic Education	Social Service Projects
	Religion and Values Education	
Aesthetics Education	Aesthetics subjects	Aesthetics
Commerce and Entrepreneurship Education	Entrepreneurship & Financial Literacy	Entrepreneurship Industrial Exposure Service Sector Studies
Cocurricular Activities		



SENIOR SECONDARY EDUCATION

The NCF for Senior Secondary Education introduces a strategic and analytical approach to subject structuring, aimed at addressing some of the key challenges in our education system.

BROAD LEARNING AREA	ESSENTIAL LEARNING AREAS		FURTHER LEARNING AREAS
	Category 1	Category 2	Category 3
Language and Literacy Education	Mother Tongue English Language	Second National Language	Appreciation of Literature Media Studies Classical Languages Modern Languages
STEM	Mathematics Science	Health and Physical Education Information & Communication Technology Agriculture & Technology	Mathematics Science Information & Communication Technology Applied Technology
Humanities and Social Sciences	History Social Studies Religion and Values Education	Mindfulness Training (Non Credit)	Orientation to World History Global Studies Civic Education Social Service Projects
Commerce and Entrepreneurship Education		Entrepreneurship & Financial Literacy	Entrepreneurship & Financial Literacy Industrial Exposure Service Sector Studies
Aesthetics Education		Aesthetics Education	Aesthetics
		Cocurricular Activities	

Essential Subjects categorized into Two Groups: A significant feature of the new framework is the division of essential subjects into two distinct groups, both of which are mandatory. The first group comprises traditional academic subjects, while the second group focuses on skills-based subjects such as Information and Communication Technology (ICT) and Aesthetics. This dual-group approach ensures that students receive a balanced education that nurtures both academic knowledge and practical skills, essential for their holistic development.

SKILLS-BASED GROUP OF SUBJECTS: The inclusion of skills-based subjects in the essential category marks a pivotal transformation in our educational approach. By emphasizing ICT and Aesthetics, we aim to cultivate a set of diverse skills in our students, fostering creativity, technological literacy, and practical problem-solving abilities. This shift is designed to prepare students for the demands of a rapidly evolving job market and to inspire a skills-oriented person from an early age.

DIVERSE MODULES IN FURTHER LEARNING AREAS: Another notable transformation is the offering of diverse modules under the section of Further Learning Areas. These modules provide students with the opportunity to select optional subjects based on their interests, thereby promoting greater engagement and personalized learning experiences. This flexibility allows students to explore various fields and gain exposure to different career paths, ultimately aiding in the development of well-rounded individuals.

ADDRESSING EDUCATIONAL CHALLENGES: These changes are a strategic response to the main struggles we face, such as the dearth of students with a skills-oriented mindset and interest in vocational or diverse streams after completing Junior and Senior Secondary Education. By integrating a balanced mix of academic and skills-based subjects alongside optional modules, the NCF aims to foster a more dynamic and adaptable student body, ready to pursue a wide range of post-secondary education and career opportunities.

Overall, the new framework for Senior Secondary Education is designed to create a more inclusive, engaging, and skill-oriented learning environment, addressing the needs of our students and the demands of the modern world.

CONSTRUCTIVE ALIGNMENT WITH THE GENERIC LEVEL AIMS AND OBJECTIVES

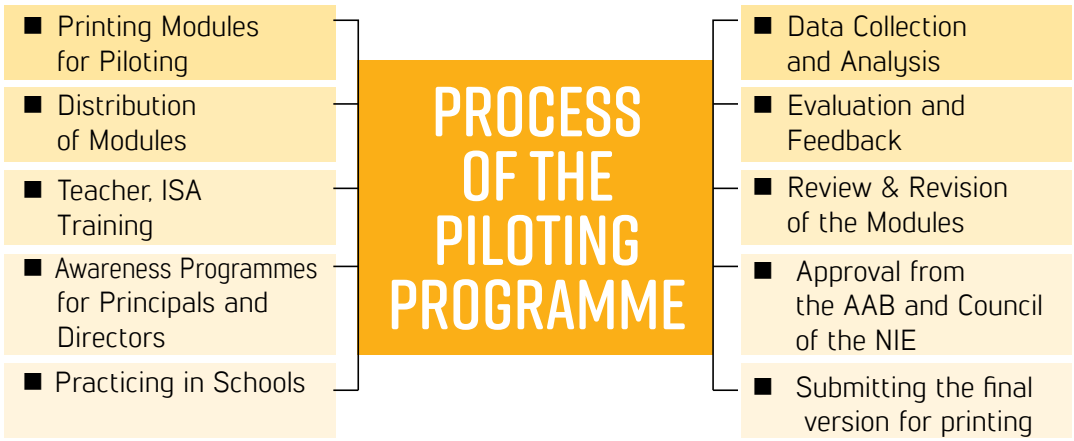
Constructive alignment is a fundamental principle in curriculum design that ensures coherence between learning activities, assessment tasks, and learning outcomes. In the context of the NCF, the importance of constructive alignment cannot be overstated. It serves as the backbone of the educational approach, ensuring that all components of the curriculum are harmoniously integrated to achieve the desired NEGs.

The NCF is developed in alignment with Sri Lankan NEGs and the Global Goals and the 2030 Agenda for sustainable development. This agenda calls for equitable and quality education for all, fostering skills that are essential for the changing world of work influenced by the 4.0, 5.0 characterized by automation and digitization. The NCF aims to reform the general education curriculum by reflecting on lessons learned from the current curriculum, incorporating global best practices, and aligning with the priorities outlined in the national development strategy.

The reform initiative is guided by Sri Lanka's commitment to sustainable development, peace, and achieving the goals set forth in the above Global Goals and the 2030 Agenda of the SDGs. The country aims to transform its education system to meet the demands of the 21st century, including adapting to the impacts of globalization.

CURRICULUM IMPLEMENTATION PLAN

	PILOTING	IMPLEMENTATION	NATIONAL EXAM
Year 1 2024	Gr 1, 6, 10		
Year 2 2025	Gr 2, 7, 11	Gr 1, 6, 10	
Year 3 2026	Gr 3, 8, 12	Gr 2, 7, 11	G.C.E. (O/L) - August 2026
Year 4 2027	Gr 4, 9, 13	Gr 3, 8, 12	
Year 5 2028	Gr 5	Gr 4, 9, 13	G.C.E. (A/L) - December 2028
Year 6 2029		Gr 5	



The piloting programme is a crucial step in the seamless implementation of the NCF. This phase serves several essential purposes, ensuring that the curriculum is not only theoretically sound but also practically applicable and effective in real-world experiences.

Evaluating Curriculum Effectiveness: The piloting process allows us to evaluate the effectiveness of the new curriculum in achieving its intended learning outcomes. By implementing the curriculum on a smaller scale, we can assess how well it aligns with the educational goals and whether it meets the needs of students and teachers.

Identifying Strengths and Areas for Improvement: Piloting provides an opportunity to identify the strengths and areas for improvement within the curriculum. Feedback from teachers, students, and other stakeholders during this phase is invaluable in highlighting what works well and what may need adjustments. This iterative process ensures that the final curriculum is robust and well-refined.

Real-World Application and Feasibility: Testing the curriculum in a real-world environment helps us understand its practical feasibility. This includes evaluating the adequacy of resources, the effectiveness of teaching methods, and the appropriateness of assessment strategies. By observing the curriculum in action, we can make informed decisions about necessary modifications to enhance its implementation.

Building Teacher Capacity: The piloting programme also plays a vital role in building the capacity of teachers to deliver the new curriculum effectively. Through training and hands-on experience, teachers become familiar with the curriculum content, teaching methodologies, and assessment techniques. This preparation is essential for ensuring a smooth transition to the new curriculum.

Gathering Data for Evidence-Based Decisions: The data collected during the piloting phase provides a strong evidence base for decision-making. Quantitative and qualitative data from observations, assessments, and feedback surveys offer insights into the curriculum's impact on student learning and engagement. This evidence is critical for making data-driven decisions and justifying the adoption of the curriculum on a wider scale.

Enhancing Stakeholder Engagement: Engaging various stakeholders, including educators, parents, and policymakers, in the piloting process fosters a sense of ownership and collaboration. Their active participation and feedback contribute to the curriculum's relevance and acceptance, paving the way for successful implementation.

Mitigating Risks: By piloting the curriculum before full-scale implementation, we can identify and mitigate potential risks and challenges. Addressing these issues early on reduces the likelihood of encountering significant obstacles during the broader rollout, ensuring a more seamless transition.

In summary, the piloting programme is an indispensable component of curriculum development. It provides a comprehensive evaluation of the curriculum's effectiveness, feasibility, and impact, guiding us toward a refined and successful implementation. Through this process, we ensure that the NCF is not only visionary but also practical, meeting the diverse needs of our educational community.

METHODOLOGY

THE DATA COLLECTION METHODS FOR THE PILOT PROGRAMME INCLUDED:

1. **Observations and Action Research Studies:**
   To assess teaching practices and student outcomes.
2. **Interviews:**
   With principals, teachers, and students to understand educational practices and challenges.
3. **Focus Group Discussions:**
   With teachers and students to gather collective insights.
4. **Classroom and School Activity Observations:**
   To evaluate teaching methods and student engagement.
5. **Document Analysis:**
   Reviewing school records, lesson plans, and student performance.

These methods provided a comprehensive evaluation of the pilot programme's implementation and impact.

KEY FINDINGS

COMPARATIVE ANALYSIS OF FINDINGS ACROSS GRADES

1. Students at the primary level showed significant improvements in engagement and comprehension, particularly in subjects like Mother Tongue, Mathematics, and Environmental Activities, when interactive and activity-based learning methods were used.

2. Secondary students excelled in subjects requiring analytical and critical thinking skills, such as Science and Technology, indicating that older students benefit more from structured, subject-specific content.

3. Schools with instruction in the mother tongue outperformed those using the bilingual media, highlighting the importance of linguistic context in student performance.

ALIGNMENT WITH THE GOALS OF THE NCF

1. The pilot programme's success in integrating activity-based learning at the primary level aligns with the NCF's goal of fostering a student-centred and engaging educational environment.

2. Improvements in Science and Technology at the secondary level support the NCF's emphasis on strengthening STEM education, showcasing the benefits of practical, hands-on learning experiences.

3. The discrepancies in performance based on the medium of instruction indicate a gap in achieving the NCF's equity goals, necessitating targeted interventions to support linguistic diversity and inclusion.

IMPLICATIONS FOR BROADER IMPLEMENTATION

1. **Activity-Based Learning :** The positive outcomes at the primary level suggest the need for expanding activity-based learning methodologies nationwide, supported by comprehensive teacher training and instructional materials.

2. **STEM Investments:** Continued investment in laboratory facilities, technological tools, and professional development for STEM teachers is crucial for maintaining and enhancing secondary level students' performance in STEM subjects.

3. **Linguistic Support:** Addressing the challenges related to the medium of instruction is essential for ensuring equitable educational outcomes, with recommendations to include bilingual education models and additional language support.

These findings provide a detailed understanding of the successes and challenges observed during the pilot programme, offering a foundation for refining and implementing the National Curriculum Framework more effectively.

RECOMMENDATIONS

ENHANCE ACTIVITY-BASED LEARNING AT PRIMARY LEVEL

1. **Teacher Training:** Conduct comprehensive training sessions for primary school teachers on activity-based learning methodologies.

2. **Instructional Materials:** Develop and distribute high-quality, age-appropriate instructional materials to facilitate interactive learning.

3. **Learning Environments:** Equip classrooms with flexible seating and ample space for group activities to support interactive learning.

STRENGTHEN STEM EDUCATION AT SECONDARY LEVEL

1. Laboratory Facilities: Invest in upgrading and maintaining science laboratories and technological tools.
2. STEM Teacher Development: Provide ongoing training and support for STEM teachers through workshops and online courses.
3. Inquiry-Based Learning: Encourage the adoption of inquiry-based learning approaches in STEM subjects.

ADDRESS LINGUISTIC EQUITY

1. Bilingual Education Models: Implement and support bilingual education models to provide a strong foundation in both the mother tongue and the second language.
2. Language Support Programmes: Establish additional language support programmes for students struggling with the medium of instruction.
3. Multilingual Resources: Develop and distribute educational materials in multiple languages.

FOSTER HOLISTIC EDUCATION

1. Social and Emotional Learning (SEL): Incorporate SEL into the curriculum and provide training for teachers on SEL practices.
2. Extracurricular Activities: Encourage a wide range of extracurricular activities to promote holistic development.
3. Parental and Community Engagement: Strengthen parental involvement and community participation in the educational process.

MONITOR AND EVALUATE IMPLEMENTATION

1. Monitoring Systems: Develop robust monitoring and evaluation systems to track the progress and impact of curriculum reforms.
2. Feedback Surveys: Conduct regular feedback surveys from teachers, students, and parents to inform ongoing improvements.
3. Best Practices Sharing: Create platforms for schools and educators to share best practices and success stories.

These recommendations aim to build on the pilot programme's successes, address identified challenges, and ensure a practical and effective approach to implementing the NCF on a broader scale.

Contents

01
Introduction

01 Introduction

The NCF is a visionary educational reform initiative aimed at transforming Sri Lanka's education system to meet the demands of the 21st century. This comprehensive approach encompasses curriculum design, assessment, teacher professional development, inclusiveness and equity, technology integration, and collaborative partnerships.

The NCF focuses on developing a balanced and relevant curriculum that aligns with national priorities and global best practices, emphasizing an inquiry-based approach to foster critical thinking, creativity, and problem-solving skills among students. These reforms enable a shifts from high-stakes examinations to continuous, formative assessments, including benchmarking studies to ensure alignment with international standards, providing a more holistic evaluation of student learning.

A significant aspect of the NCF is the enhancement of teacher training programmes, aiming to improve subject knowledge and pedagogical skills, fostering a student-centred approach that encourages active and engaged learning.

The framework emphasizes equal access to quality education for all students, regardless of their geographical location, socioeconomic status, or ethnic background, ensuring that every child has the opportunity to succeed. Leveraging digital tools and resources, the NCF aims to integrate technology into the curriculum to enhance teaching and learning, incorporating technological advancements to make learning more interactive and engaging.

The NCF encourages collaboration between schools, communities, industry, and other stakeholders, recognizing these partnerships as vital in creating a supportive learning environment and ensuring the successful implementation of curriculum transformation. Providing a detailed roadmap for its implementation, including timelines, roles, and responsibilities, the NCF establishes mechanisms for monitoring and evaluating its effectiveness, ensuring continuous improvement and adaptation to emerging educational needs.

The overarching goal of the NCF is to develop citizens who are ready to meet the challenges of the modern world and contribute to Sri Lanka's sustainable development and peace. By transforming the education system, the NCF aims to create a generation of learners equipped with the knowledge, skills, and values necessary for the 21st century.

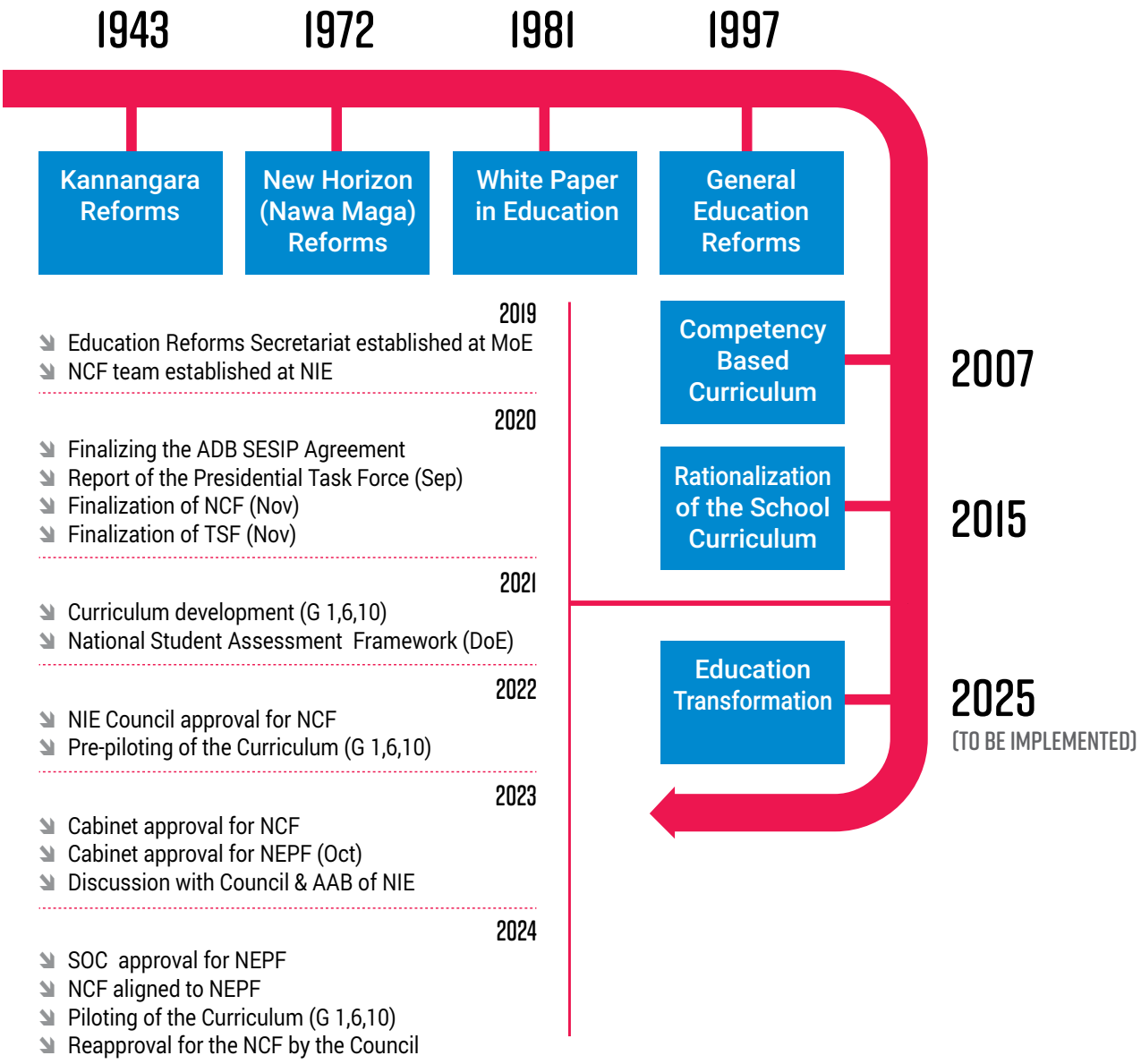


FIGURE 1 : Evolution of Curriculum in Sr Lanka

EVOLUTION OF MAJOR CHANGES IN SRI LANKAN GENERAL EDUCATION

1. **1945:** Introduction of Free Education - A landmark reform that made education free for all students, significantly increasing access to education across the country.
2. **1956:** Swabhasha Medium Education - Implemented the use of Sinhala and Tamil as the mediums of instruction in schools.
3. **1961:** National Schools - Establishment of national schools to standardize and improve the quality of education nationwide.
4. **1972:** Integrated Curriculum - Introduction of an integrated curriculum focusing on Science, Mathematics, and Technology.
5. **1977:** Educational Reforms - Major reforms aimed at decentralizing the administration of education and introducing technical subjects in the curriculum.
6. **1981:** Curriculum Revision - Revision of the school curriculum to include

more practical and skill-oriented subjects.

7. **1997:** Competency-Based Curriculum - Shift towards a competency-based curriculum to enhance the skills and abilities of students.

8. **2006:** School-Based Assessment - Introduction of school-based assessments to complement public examinations.

9. **2015:** Curriculum Modernization - Modernization of the curriculum to incorporate ICT and align with global educational standards.

These reforms reflect the continuous evolution and modernization of Sri Lanka's education system, aiming to provide equitable, high-quality education and preparing students for the challenges of the modern world.

PREPARATION FOR THE TRANSFORMATION

From 2019 to 2024, several significant activities were undertaken in preparation for the curriculum transformation, planned for 2025. In 2019, the Education Reforms Secretariat was established at the MoE, and the NCF team was set up at the NIE. The following year, 2020, the finalization of the ADB SESIP Agreement and the publication of the Presidential Task Force report in September. November 2020 marked the finalization of both the NCF and the TSF.

In 2021, curriculum development began for Grades 1, 6, and 10, and the NSAF was created by the DoE. By 2022, the NIE Council had approved the NCF, and pre-piloting of the curriculum for Grades 1, 6, and 10 took place. The year 2023 involved obtaining Cabinet approval for the NCF and NEPF in October, followed by discussions with the NIE Council and AAB.

Finally, in 2024, SOCE approval was secured for the NEPF, and the NCF was aligned with the NEPF. Additionally, piloting of the curriculum for Grades 1, 6, and 10 commenced, and reapproval was obtained by the Council of the NIE for setting the stage for the comprehensive curriculum transformation set for 2025.

NATIONAL CURRICULUM TRANSFORMATION 2025

The 2025 new curriculum represents a significant milestone in Sri Lanka's curriculum transformation, aiming to align with global best practices and address the evolving needs of students. The curriculum emphasizes student-centred learning, inquiry-based approaches, and the integration of technology to foster essential 21st-century skills. With a focus on reducing student stress, encouraging collaborative learning, and promoting practical knowledge, this transformative initiative seeks to create a more dynamic, inclusive, and effective educational environment across the country.

1. Evolution of School Curriculum in Sri Lanka (). National Institute of Education

02

Sustainable Development Goals (SDGs) and Education

Sustainable Development Goals (SDGs) and Education

02

FIGURE 2 : SDGs

(source: https://www.un.org/sustainabledevelopment/news/communications-material/)

SDGS EDUCATION - TARGETS

4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education

4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations

4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all

4.b By 2030, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries

4.c By 2030, substantially increase the supply of qualified teachers, including through inter- national cooperation for teacher training in developing countries, especially least developed countries and small island developing States *(source: https://sdgs.un.org/goals/goal4)*

Above targets are integrated into the NCF to foster an educational environment that promotes sustainability, inclusiveness, and quality learning outcomes, in line with global standards and priorities.

03

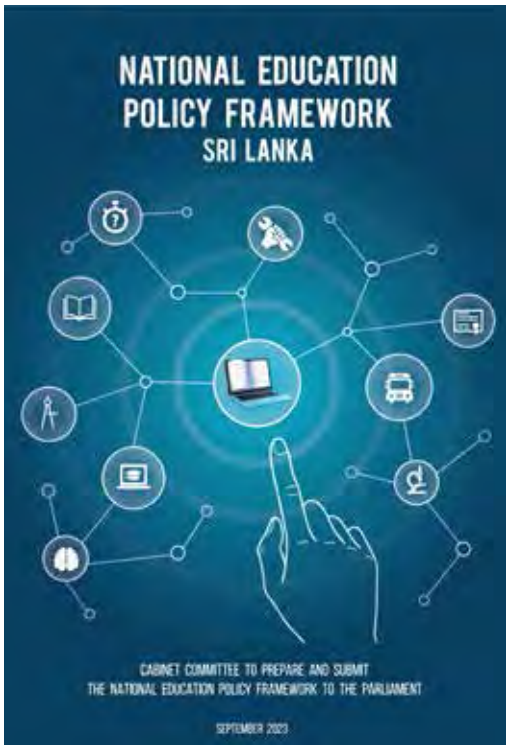
National Education Policy Framework (NEPF) key Expected Transformations

National Education Policy Framework (NEPF) key Expected Transformations

03

The NEPF highlights the key transformations and they are organized by three main domains.

The Teaching Learning and Credentialing is the first domain and there are 21 transformations are listed as given below.



TEACHING, LEARNING AND CREDENTIALING DOMAIN

- Religions and Values subject allowing students to learn about all religions for increased harmony in society
- A phased approach to establishing bilingual education in all schools, which would eventually facilitate improved education in English [1]
- All students are proficient in the two national languages, English, numeracy and digital literacy appropriate to stage of education
- Blended Learning, STEAM, Mindfulness Learning, and other 21st century approaches incorporated into all classrooms
- All students to be made aware of artificial intelligence, climate change, sustainable development and other emerging global priorities
- Entrepreneurship, financial literacy and other functional skills through curricular or co-curricular activities
- National curricula and assessments at all levels in Education standardized against suitable international benchmarks
- Standards and curricula in skills development in major sectors of the economy shall be developed by relevant Skills Councils [1]
- Combination of subjects in either academic and/or skills tracks with multiple pathways of progression along professional or vocational paths
- 13 Years of Education with Completion Certificates at the end of Year 11 and Year 13 capturing the full extent of their learning [1]

1 Report of the Sectoral Oversight Committee on Education on National Education Policy Framework – Sri Lanka (2023 – 2033)

- Less weightage placed on final examinations and increased emphasis on project-based assessments
- Re-entry at any point at skills sector and higher education and transfers across programmes 1
- Mandatory career guidance at key stages
- Mechanism for evidence based benchmarking and transfer between international and local qualifications 1
- Inclusive learning approaches facilitated to benefit students with special needs
- Specially targeted learning processes facilitated to address the learning requirements of children with special learning needs as well as the needs of high achieving students
- Teaching profession transformed to attract qualified individuals by introducing Certification and Rewarding mechanism and a National Council for Teachers, and readjustment of teacher remuneration
- Teachers and educators continuously trained and their capacity built for delivering enhanced services
- Internships and apprenticeships across all stages of education
- Artificial intelligence, among other technologies as teaching and learning tools
- Opportunities created for teachers through international linkages to foster global exposure exchanges, and collaborations

04

Vision and Mission of the Ministry of Education (MoE)

Vision and Mission of the Ministry of Education (MoE)

04

VISION

To reach excellence in global society through competent citizens who share the Sri Lankan identity

MISSION

Develop competent citizens keeping with the global trends through innovative and modern approaches to education leading to efficiency, equity and high quality performance ensuring stakeholder satisfaction

05

Vision and Mission of the National Institute of Education (NIE)

05 Vision and Mission of the National Institute of Education (NIE)

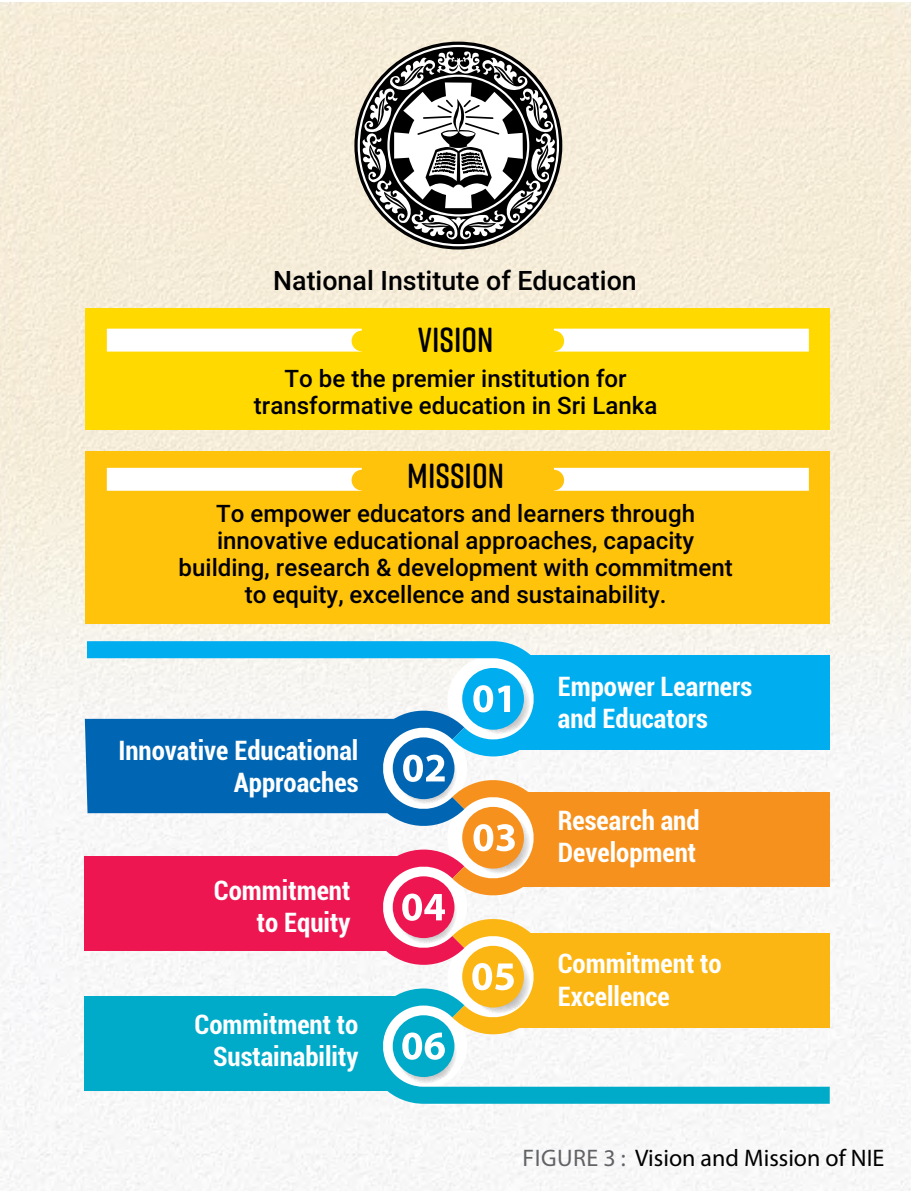


FIGURE 3 : Vision and Mission of NIE

06

National Education Goals (NEGs)

National Education Goals

06

- Promote the physical, mental, spiritual, socioemotional, and environmental well-being of individuals necessary for a healthy and happy way of life, based on respect for human values
- Develop knowledge, skills, attitudes and human qualities for technological, socio-economic and cultural advancement, in keeping with national needs and global trends
- Develop productive individuals with curiosity, critical thinking, problem-solving skills, creativity, and innovativeness
- Promote respect for human rights and laws of the country, while fulfilling duties and obligations in keeping with the norms of social justice and democratic way of life
- Develop individuals to manage change and cope with complex and unforeseen situations
- Uphold the nation's cultural and ecological heritage while responding to local and global challenges
- Promote a mindful and self-conscious learner to enhance the capacity for learning to learn
- Develop a patriotic Sri Lankan citizen fostering national cohesion, national integrity and national unity while respecting cultural diversity

(NEC,2023 p 6)

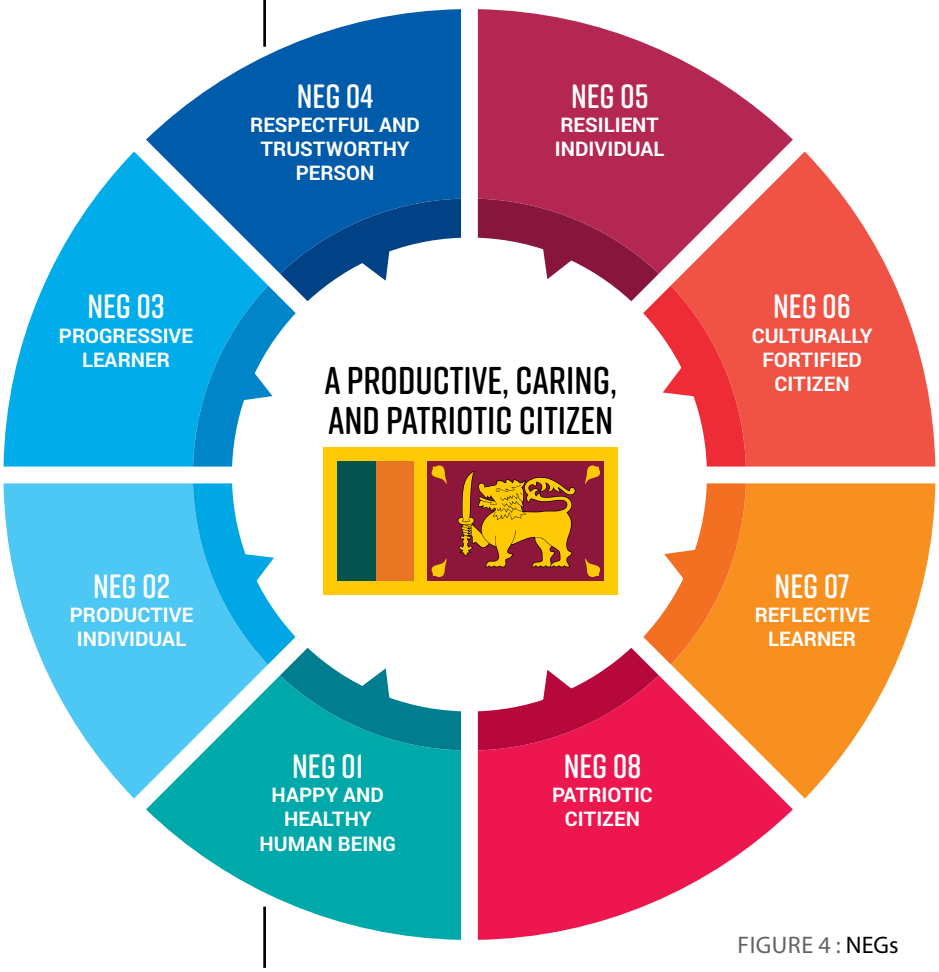


FIGURE 4 : NEGs

07

National Learning Competency Domains (NLCDs)

National Learning Competency Domains (NLCDs)

07

NLCDs are designed to align fully with the NCF, ensuring that students develop a well-rounded set of competencies essential for personal and professional success. The twelve NLCDs include:

- Subject/ Theoretical Knowledge
- Practical Knowledge and Skills
- Communication
- Teamwork and Leadership
- Creativity and Problem Solving
- Managerial and Entrepreneurship Skills
- Information Usage and Management
- Networking and Social Skills
- Adaptability and Flexibility
- Attitudes, Values and Professionalism
- Vision for Life
- Updating Self / Lifelong Learning

(Source: 2020-2030 NEC P36,37)

08

New Progression Pathway; Proposed Structure

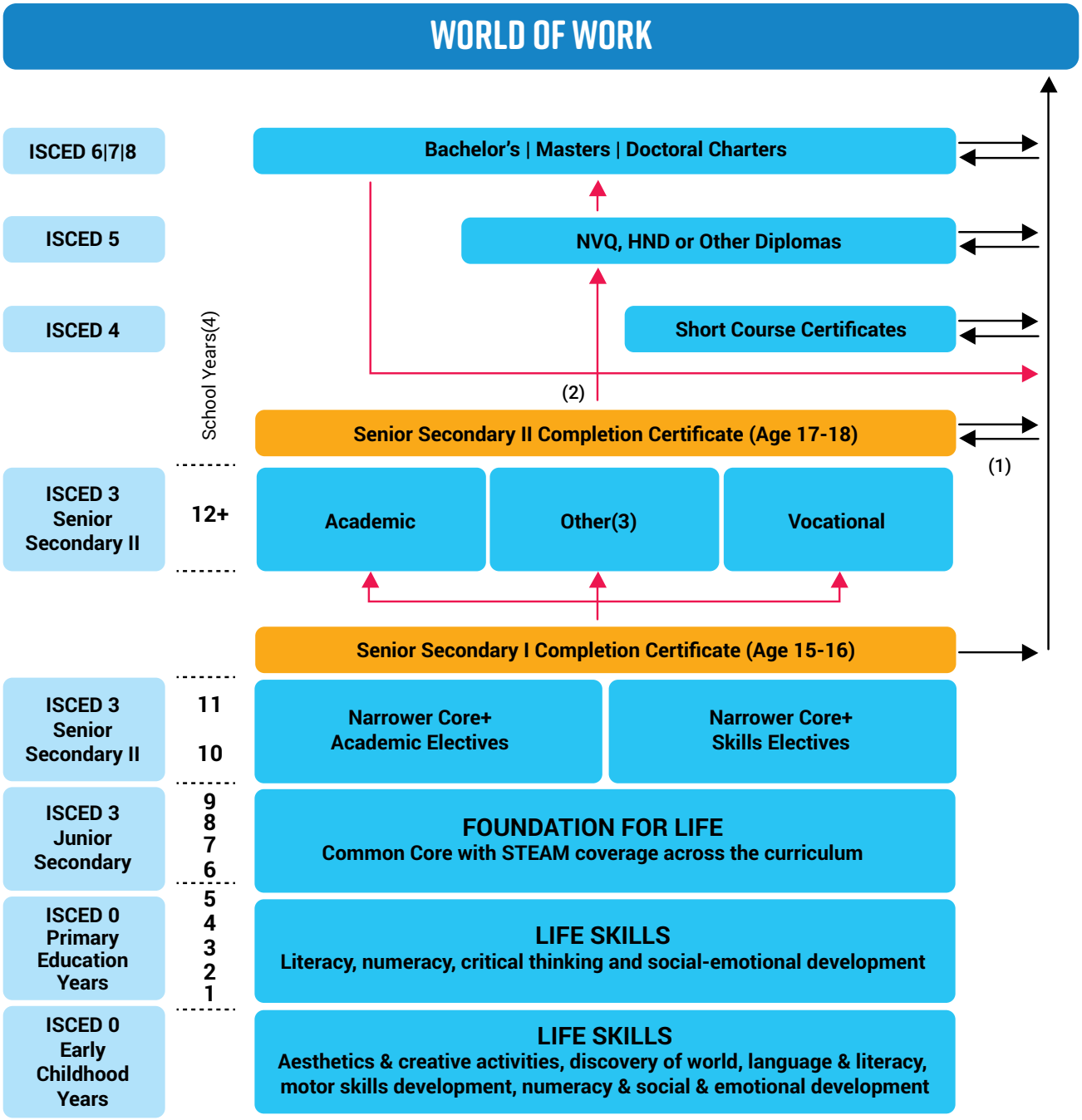
New Progression Pathway; Proposed structure

08

NCF supports the new progression pathway by aligning with educational reforms that promote comprehensive learning and vocational pathways. The proposed completion certificates at the end of Year 11 and Year 12+ are significant transformations that aim to recognize the full extent of students' learning. These certificates not only acknowledge academic achievements but also emphasize vocational skills, making them valuable in promoting vocational pathways.

This approach ensures that students are equipped with the necessary skills and qualifications to pursue various professional or vocational careers, thereby enhancing their employability and readiness for the job market.

A NEW PROGRESSION PATHWAY TO REDUCE THE UNSKILLED POPULATION & OFFER A SEAMLESS ARRAY OF EDUCATION OPPORTUNITIES FOR ALL



(1) Re-entry to ISCED 3 level at any stage through GCE A/L equivalent to be defined
(2) Entry into any track is possible with top-up credentials as needed
(3) Other streams may include Foundation for higher education programme or other skills qualifications
(4) The start of the 1-13 School Year span may be adjusted according to future circumstances

ABBREVIATIONS : FT- full time | NVQ - National Vocational Qualifications | PT - Part Time
(Source: NEPF P21)

FIGURE 5 : A new progression pathway to reduce the unskilled population & offer a seamless array of education opportunities for all

09

Transforming Education: Framework

Transforming Education : Framework

09

Authentic learning experiences in the new educational transformation

It is incumbent on educational transformation to prepare school children to face the rapidly changing global surroundings. In order to ensure that our students do not lose track of holistic knowledge in a world which is experiencing a knowledge expansion in all aspects, Sri Lanka has taken steps to introduce a module-based curriculum design enriched with authentic learning methodology. This new pedagogical approach aims to facilitate students' comprehension and retention of learning materials effectively so that they can easily grasp the subject. The framework for new educational transformation is depicted in Figure 6.

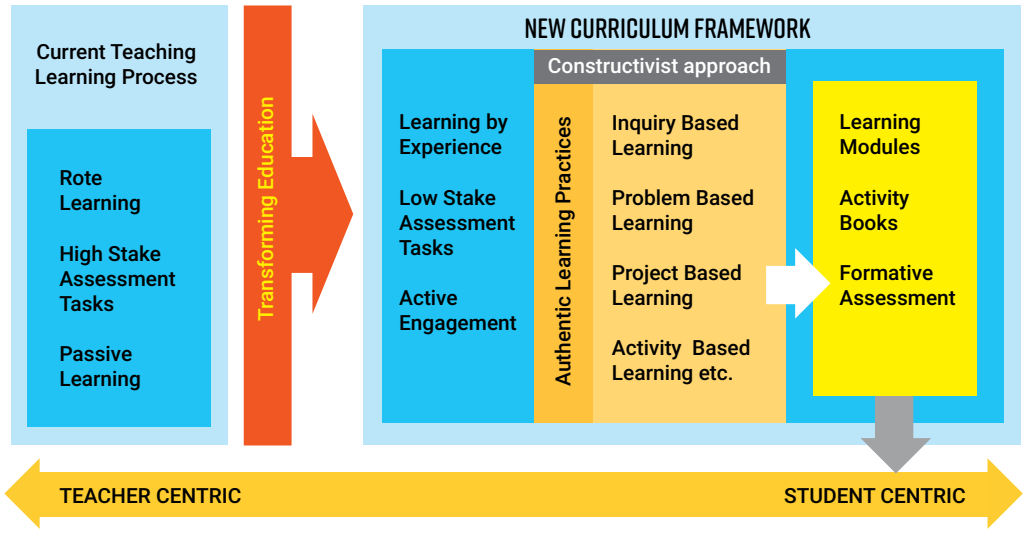


FIGURE 6 : Transforming Education: Framework

Students may encounter difficulties in understanding complex subject concepts within a traditional teaching-learning process where they predominantly assume a passive role in the rote memorization of information. Also, the high-stakes assessment tasks used to measure progress in student learning in conventional educational systems have long been associated with psychological distress

and anxiety[1]. To avoid such difficulties, it is important to introduce the subjects in a palatable way which moves students from passive receivers to active participants in their own discovery process.

The literature indicates that many countries have implemented the authentic learning approach which positions students as active and participatory agents in their own educational experience[2]. Several researchers have highlighted the rewards of using the authentic learning approach to make subjects familiar among school children [3].

In education, the term Authentic Learning refers to a wide variety of educational and instructional techniques focused on connecting what students are taught in school to real-world issues, problems, and applications [4].

The basic idea is that students exhibit greater engagement, increased motivation to acquire new knowledge and skills, and enhanced preparedness for post-secondary education, professional careers, and adult life when the curriculum is aligned with real-world contexts. This alignment involves imparting practical and utilitarian skills and addressing subject matter pertinent to their lives beyond the educational setting.

Piaget and other psychologists assert that active engagement is essential for real learning to occur[5]. Since authentic learning is a pedagogical approach that allows students to explore, discuss, and meaningfully construct concepts and relationships in contexts that involve real-world problems or situations, it facilitates experiential learning where the students play an active and participatory role in their own learning process[6].

This will provide increased independence and authority for the students with compared to traditional teacher-centred learning methods. Besides, the low stake assessment tasks, incorporated with the authentic approach will minimize the negative impact of examinations on the mental health and well-being of the students.

On the other hand, authentic learning takes a constructivist approach in which learning is an active and social procedure where learners use their prior knowledge to construct new knowledge[7]. As stated by John Dewey, "Education is not an affair of 'telling' and being told, but an active and constructive process"[8].

If students only passively perceive a problem and do not experience its consequences in a meaningful, emotional, and reflective way, they are unlikely to adapt and revise their habits or construct new habits, or will only do so superficially.

There are several authentic learning practices, that engage students in real-world problems and tasks, promoting deeper understanding and practical application of knowledge. Some key practices include: Inquiry-Based Learning, Project-Based Learning, Problem-Based Learning, Activity-Based Learning, etc. For instance, Inquiry-Based Learning, gives students a chance to naturally learn and acquire knowledge both in the classroom as well as outside[9].

This encourages students to ask questions and investigate real-world problems so that they make sense of information and ideas to synthesize knowledge, deepen understanding, and share their learning with others. This is a more authentic learning experience as it promotes learning as a more enjoyable, exciting way to absorb and understand information while applying it in the real world.

Accordingly, integrating real-world contexts into the classroom environment is crucial for optimizing learning outcomes. Therefore, instead of focusing on the memorizing power

1. Hembree, 1988; Kellaghan & Greaney, 2019
2. Akter et al., 2023; Yim & Su, 2024
3. Newmann, Marks, & Gamoran, 1996; Rizvi, Waite, & Sentance, 2023
4. usergeneratededucation.wordpress.com, 2019
5. Piaget, 1954; Piaget, 1973
6. Donovan, Ed, & Pellegrino, 1999
7. Brown, Collins, & Duguid, 1989
8. Mayo, 2010
9. Authentic Learning: Bringing Real-World Relevance to the Classroom, 2023

of students, an education system should encourage experiential learning and the practical application of knowledge grounded in real-world contexts[10].

Thus, Sri Lanka has initiated the development of a new curriculum incorporating an authentic learning approach, utilizing learning modules for secondary education and activity books for primary education.

This will lead to the integration of theoretical concepts from classrooms with students' daily experiences and prior knowledge, thereby improving students' knowledge and skills more sustainably to prepare them for the challenges and opportunities of the 21st century and the 4th and 5th Industrial Revolution[11].

10. Fernando, 2022
11. Ariyarathna & Rajapakse, 2024)

10

National Curriculum Framework (NCF)

National Curriculum Framework (NCF)

10

10.1 Background to the National Curriculum Framework

The development of the NCF marks a pivotal moment in the evolution of education in Sri Lanka. Initiated by the NIE, this framework is designed to address evolving educational needs in the 21st century, ensuring that our students are equipped with the necessary skills and knowledge to thrive in a rapidly changing world.

Even though Sri Lanka has made notable strides in education, the country still faces significant challenges in ensuring that education outcomes are relevant to the labour market to meet the needs of the modern world.

The current curriculum is often criticized for being content-heavy and overly theoretical, with insufficient emphasis on practical applications and inquiry-based learning.

The NCF of Sri Lanka is an ambitious reform initiative led by the MoE and the NIE. This reform seeks to address the existing challenges in the country's education system, particularly in terms of quality, relevance, and equity, with a focus on secondary education and STEAM subjects.

10.2 Objectives of the National Curriculum Framework

10.2.1 General Objective

To transform the general education curriculum of Sri Lanka to foster the development of citizens ready to meet the challenges of and beyond the 21st century, thereby contributing effectively to sustainable national development and peace.

10.2.2 Specific Objectives

- Enhance Curriculum Relevance and Quality
- Improve Learning Outcomes
- Increase Enrolment in Science and Technology Streams
- Promote SDGs and Citizenship Education
- Strengthen School-Community Relationships
- Foster 21st Century Skills
- Ensure Equity and Inclusivity
- Align with NEGs
- Promote Entrepreneurial Mindset

11

Piloting of the National Curriculum Framework (NCF)

Piloting of the National Curriculum Framework

11

11.1 Description of the Sample Selection

SCHOOL SAMPLE FOR PILOTING (PRIMARY STAGE): PROPOSED CONTENT FOR THE NCF

Table 1 : **Sample Description (Primary)**

GRADE 1 (108 SCHOOLS)								
GROUP 01 (33 SCHOOLS)			GROUP 02 (37 SCHOOLS)			GROUP 03 (38 SCHOOLS)		
Northern (13 schools)	Sabaragamuwa (08 schools)	Western (12 schools)	Eastern (17 schools)	Uva (11 schools)	North Western (09 schools)	Central (16 schools)	Southern (12 schools)	North Central (10 schools)
Sub1 - Sinhala Sub2 - Tamil Sub3 - 2NL Sub4 - Mathematics Sub5 - Environmental Related Activities Sub6 - Activity Based Oral English Sub7 - Religion			Sub1 - Sinhala Sub2 - Tamil Sub3 - 2NL Sub4 - Mathematics Sub5 - Environmental Related Activities Sub6 - Activity Based Oral English Sub7 - Religion			Sub1 - Sinhala Sub2 - Tamil Sub3 - 2NL Sub4 - Mathematics Sub5 - Environmental Related Activities Sub6 - Activity Based Oral English Sub7 - Religion		

The pilot programme for the primary stage was tested for grade 1 at 108 schools. The schools were grouped into three for different subjects. The provinces in Group 01 were Northern, Sabaragamuwa, and Western. The number of schools in each province 13, 8, and 12, respectively. The subjects were Sinhala, Tamil, 2NL, Mathematics, Environmental Related Activities, Activity Based Oral English, and Religion. The provinces in Group 02 were Eastern, Uva, and North Western. The number of schools in each province was 17, 11, and 9, respectively. The subjects taught in this group was Sinhala, Tamil, 2NL, Mathematics, Environmental Related Activities, Activity Based Oral English, and Religion. The provinces in Group 03 are Central, Southern, and North Central. The number of schools in each province is 16, 12, and 10, respectively. The subjects taught in this group are Sinhala, Tamil, 2NL, Mathematics, Environmental Related Activities, Activity Based Oral English, and Religion.

SCHOOL SAMPLE FOR PILOTING (SECONDARY STAGE): PROPOSED CONTENT FOR THE NATIONAL CURRICULUM FRAMEWORK

Table 2 : **Sample Description (Secondary)**

GRADE 6 & 10 (117 SCHOOLS)								
GROUP 01 (33 SCHOOLS)			GROUP 02 (37 SCHOOLS)			GROUP 03 (38 SCHOOLS)		
Northern (13 schools)	Sabaragamuwa (08 schools)	Western (12 schools)	Eastern (17 schools)	Uva (11 schools)	North Western (09 schools)	Central (16 schools)	Southern (12 schools)	North Central (10 schools)
Sub1 - Aesthetics Sub2 - Technology Sub3 - Classical Sub4 - Religion Sub5 - Sinhala Sub6 - Tamil Sub7 - Science Sub8 - 2NL			Sub1 - Aesthetics Sub2 - Technology Sub3 - Classical Sub4 - Religion Sub9 - English Sub10 - Social Sciences Sub11 - Health & Phy. Edu.			Sub1 - Aesthetics Sub2 - Technology Sub3 - Classical Sub4 - Religion Sub12 - Mathematics Sub13 - Commerce Sub14 - ICT		

The pilot programme for the secondary stage was tested in grades 6 and 10 at 117 schools. The piloting stage aims to introduce and test a new educational methodologies and content frameworks tailored to enhance learning outcomes for secondary school students. The schools involved in the pilot programme at the secondary stage were placed in three groups: Group 01 (36 schools), Group 02 (41 schools), and Group 03 (40 schools), all selected to test and evaluate the effectiveness of curriculum changes. Ensuring provincial distribution from Northern (14 schools), Sabaragamu (9 schools), Western (13 schools), Eastern (18), Uva (12), North Western (11), Central (16), Southern (13), and North Central (11) Provinces participated in the pilot.

Group 1 comprised a total of 36 schools, distributed across various provinces as follows: 14 schools from the Northern Province, 9 schools from Sabaragamuwa, and 13 schools from the Western Province. The subjects included were Aesthetics, Technology, Classical Studies, Religion, Sinhala, Tamil, Science, and 2NL. Group 2 has a total of 41 schools, distributed across various provinces as follows: 18 schools from the Eastern Province, 12 schools from Uva, and 11 schools from the North Western Province. The subjects included in Group 2 were Aesthetics, Technology, Classical Studies, English, Social Sciences, and Health & Physical Education. Group 3 consisted of 40 schools, from three different provinces: 16 schools from the Central Province, 13 from the Southern Province, and 11 from the North Central Province. The subjects covered in Group 3 included Aesthetics, Technology, Classical Studies, Religion, Mathematics, Commerce, and ICT.

SUBJECT CONTENT: PRIMARY LEVEL (GRADE 1)

Table 3 : **Subjects in Primary Level (Grade 1)**

SUBJECT	DESCRIPTION
Mother Tongue	Sinhala/Tamil Language Skills of Listening, Speaking, Reading and Writing
English Language	Activity Based Oral English and English as a subject from Gr 3 to Gr 5
Second National Language	Only to develop oral skills (Tamil for Sinhala medium students and Sinhala for Tamil medium students)
Mathematics	Pre-math skills, use of numbers, mathematical operations etc.
Religion and Values Education	Buddhism, Saivanery, Catholicism, Christianity, Islam
Science, Technology and Environment related Activities	Integrated with Elementary Science, Basic Technology Skills, Environmental Studies
Integrated Aesthetics Education	Singing, Drama and Dancing, Art and Handwork
Health and Physical Education	Physical Development Activities

SUBJECT CONTENT: JUNIOR SECONDARY LEVEL (GRADE 6)

Table 4 : **Subjects in Junior Secondary Level (Grade 6)**

BROAD LEARNING AREA	ESSENTIAL LEARNING AREAS	FURTHER LEARNING AREAS
Language and Literacy Education	Mother Tongue	Appreciation of Literature Media Studies
	English Language	
	Second National Language	
STEM	Mathematics	Mathematics for Further Studies Science for Further Studies Information & Communication Technology for Further studies Applied Technology
	Science	
	Health and Physical Education	
	Information & Communication Technology	
	Technology for Life	
Humanities and Social Sciences Education	History	Orientation to World History Global Studies Social Services
	Geography	
	Civic Education	
	Religion and Values Education	
Aesthetics Education	Aesthetics subjects	Aesthetics for Further Studies
Commerce and Entrepreneurship Education	Entrepreneurship & Financial Literacy	Entrepreneurship Industrial Exposure Service Sector Studies
Co-Curricular Activities		

SUBJECT CONTENT: SENIOR SECONDARY LEVEL (GRADE 10)

Table 5 : **Subjects in Senior Secondary Level (Grade 10)**

	ESSENTIAL LEARNING AREAS		FURTHER LEARNING AREAS
BROAD LEARNING AREA	CATEGORY 1	CATEGORY 2	CATEGORY 3
Language and Literacy Education	Mother Tongue English Language	Second National Language	Appreciation of Literature Media Studies Classical Languages Modern Languages
STEM	Mathematics Science	Health and Physical Education Information & Communication Technology Technology	Mathematics Science Information & Communication Technology Applied Technology
Humanities and Social Sciences	History Social Studies Religion and Values Education	Mindfulness Training (Non Credit)	Orientation to World History Global Studies Civic Education Social Services Projects
Commerce and Entrepreneurship Education		Entrepreneurship & Financial Literacy	Entrepreneurship & Financial Literacy Industrial Exposure Service Sector Studies
Aesthetics Education		Aesthetics Education	Aesthetics
		Cocurricular Activities	

11.2 Methodology

The data collection utilized for the pilot programme utilized was observations and action research studies. It was utilized to gain a thorough understanding of the schools' environments, practices, and outcomes. The methods included interviews with school principals, teachers, and selected students to delve deeply into educational practices, challenges, and successes. Focus group discussions with teachers and students provided collective insights into the impact of the pilot programme and educational environments. Observations of classrooms and school activities allowed researches to assess teaching methods, student engagement, and the overall learning atmosphere.

Document analysis of school records, lesson plans, and student performance records provided additional contextual data.

11.3 Analytical Approach for Qualitative Data

To analyse the qualitative data, a systematic approach was employed. This included transcribing interviews and focus group discussions verbatim, organizing observational notes and documents systematically, and coding data using thematic analysis techniques. Themes were developed from these codes, reflecting key findings and insights from the qualitative data, which were then interpreted to provide a comprehensive understanding of the schools' environments and the impact of the pilot programme.

The findings were reported in a narrative format, supported by direct quotes and examples to illustrate significant points. This methodology ensured a robust analysis of the qualitative data collected, offering valuable insights into educational practices and outcomes across the selected schools in various provinces. These insights will guide further development and refinement of the pilot programme, aiming to enhance educational practices and outcomes within the participating schools and potentially expanding the programme to benefit other regions in the future.

12

Data Analysis and Findings

12 Data Analysis and Findings

12.1 Primary Level

The data analysis and findings at the primary level base on the pilot schools are categorized by province and medium of instruction. The primary pilot schools span across different provinces with subjects including Mother Tongue, Religion and Values Education, Second National Language, Mathematics, Elementary Science and Environment Related Activities, Activity Based Oral English, and Aesthetics.

Table 6 : **Piloting Schools (Primary)**

PROVINCE	NO OF SCHOOLS	MEDIUM	SUBJECT
Western	10	Sinhala	Mother tongue, Religion and Values Education, Second National Language
	01	Tamil	
Northern	01	Sinhala	Mother tongue, Religion and Values Education, Second National Language, Mathematics
	05	Tamil	
Sabaragamuwa	05	Sinhala	Mother tongue, Religion and Values Education, Second National Language
	02	Tamil	
Central	05	Sinhala	Religion and Values Education, Elementary Science and Environment Related Activities, Activity Based Oral English, Aesthetics
	02	Tamil	
Southern	06	Sinhala	Religion and Values Education, Elementary Science and Environment Related Activities, Activity Based Oral English, Aesthetics
	01	Tamil	
North Western	05	Sinhala	Religion and Values Education Mathematics
	01	Tamil	
Eastern	01	Sinhala	Religion and Values Education, Mathematics
	03	Tamil	
Uva	03	Sinhala	Mathematics
	01	Tamil	
North Central	02	Sinhala	Elementary Science and Environment Related Activities, Activity-Based Oral English
		Tamil	

OBSERVATIONS AT SCHOOL LEVEL

The piloting of the NCF at the primary stage involves 108 schools across various provinces. These schools were categorized into three groups to test different subjects, including Sinhala, Tamil, Mathematics, Environmental Related Activities, Activity-Based Oral English, and Religion. The piloting aims to introduce and evaluate new educational methodologies and content frameworks to enhance learning outcomes for primary school students.

Through this process, the effectiveness, feasibility, and impact of the NCF are comprehensively assessed, ensuring its alignment with the educational needs and goals of Sri Lanka.

Table 7 : **Sample for the Observations**

SUBJECT	PROVINCE	NO OF SCHOOLS	MEDIUM
Mother Tongue	Western	02	Sinhala
	North	01	Tamil
Second National Language	Western	02	Sinhala
	Sabaragamuwa	01	Tamil
Religion and Values Education: Saivanery, Catholicism, Islam, Buddhism	North	01	Tamil
	Sabaragamuwa	01	Sinhala / Tamil
	Eastern	01	Tamil
	Southern	01	Sinhala
Mathematics	North western	01	Sinhala
	North	01	Tamil
	Uva	02	Sinhala / Tamil
Elementary Science and Environment Related Activities, Activity-Based Oral English	Southern	01	Sinhala
	Central	01	Sinhala
	North central	01	Tamil
Aesthetics	Central	01	Sinhala

SCHOOL TYPE AND TEACHER INFORMATION OF THE SAMPLE

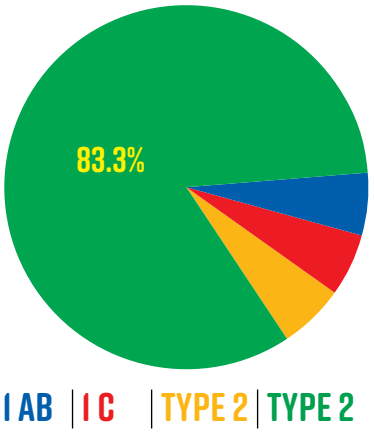


FIGURE 7 : School Type

SCHOOL TYPE

The pie chart illustrates the distribution of school types involved in the pilot programme. Government schools constitute the majority, followed by semi-government and private schools. This distribution indicates that the pilot programme has been inclusive, involving a diverse range of school types to ensure a comprehensive evaluation of the curriculum framework.

YEAR OF EXPERIENCE

This chart shows the teaching experience of the educators participating in the pilot programme. The majority of teachers have over 10 years of experience, indicating a seasoned workforce. There are also significant numbers of teachers with 5-10 years and less than 5 years of experience. This mix of experience levels helps provide a balanced perspective on the new curriculum's implementation and its challenges.

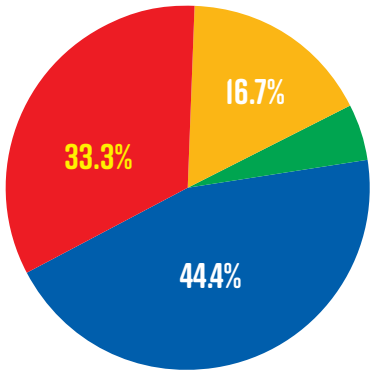
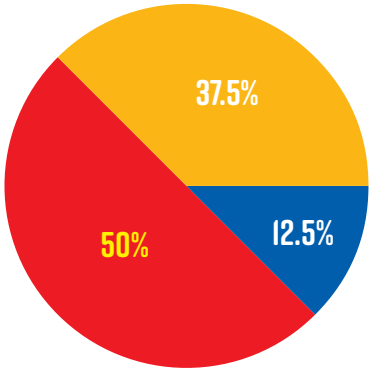


FIGURE 8 : Professional experience of the educators



EDUCATIONAL QUALIFICATIONS

The pie chart outlines the educational qualifications of the teachers. Most teachers hold a Bachelor's degree, followed by those with a Master's degree. A smaller proportion of teachers have diplomas or other qualifications. This indicates a well-qualified teaching staff, which is crucial for the successful implementation of the new curriculum.

FIGURE 9 : Educational Qualifications of the teachers

PROFESSIONAL QUALIFICATIONS

This chart details the professional qualifications of the teachers. The majority have received teacher training, with others have additional certifications or diplomas in education. A small number of teachers lack formal professional qualifications. The presence of professionally trained teachers suggests a high level of readiness to adapt to and implement new curricular changes effectively.

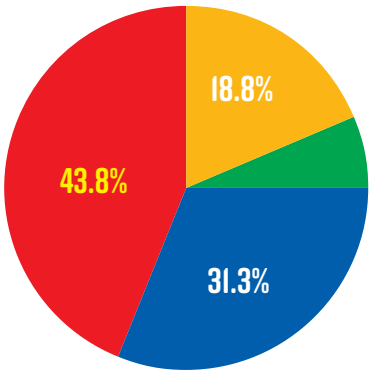
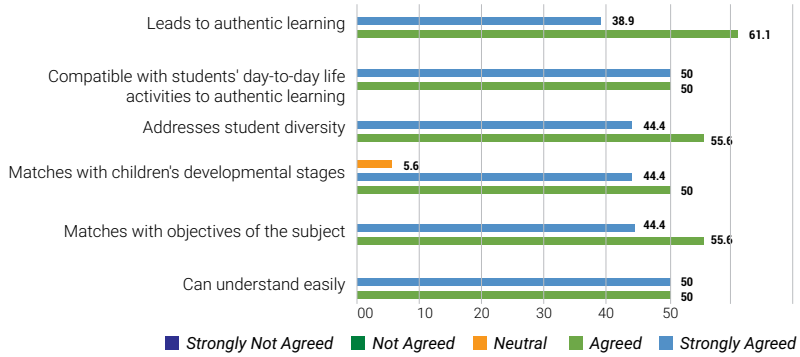


FIGURE 10 : Professional Qualifications of the teachers

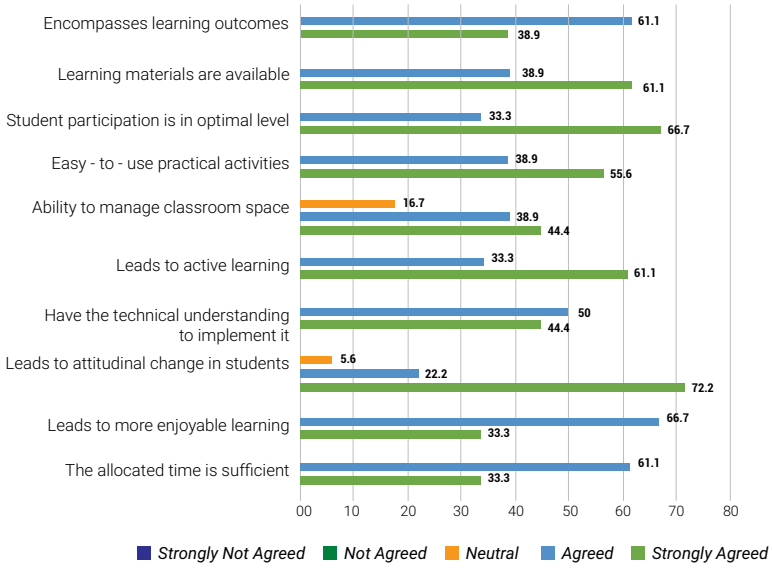
CONTENT OF THE ACTIVITY BOOK



The figure illustrates a highly positive reception towards the activity book's content across all evaluated categories. The responses suggest that the book is easy to understand, aligns well with educational objectives and developmental stages, addresses diversity, is relevant to daily activities, and promotes authentic learning. There are no negative or strongly negative responses in any category, reinforcing the book's effectiveness and suitability as resource material.

FIGURE 11 : Content of the Activity Book

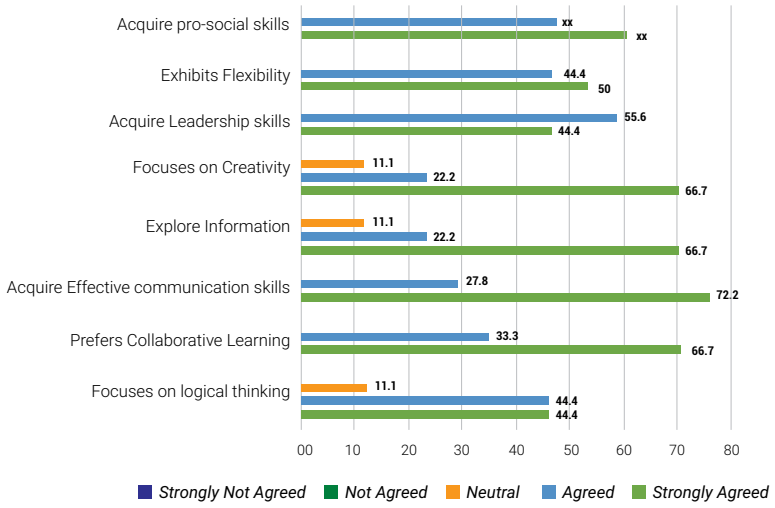
ACTIVITIES



The figure shows overwhelmingly positive responses towards the evaluated aspects of the activities. High percentages of "Strongly Agreed" and "Agreed" responses indicate that the activities are well-received, particularly in terms of learning outcomes, material availability and student participation, and leading to active and enjoyable learning. There are small percentages of neutral and not agreed responses in a few categories, such as practical use and technical understanding, but these do not significantly impact the overall positive perception of the activities.

FIGURE 12 : Activities

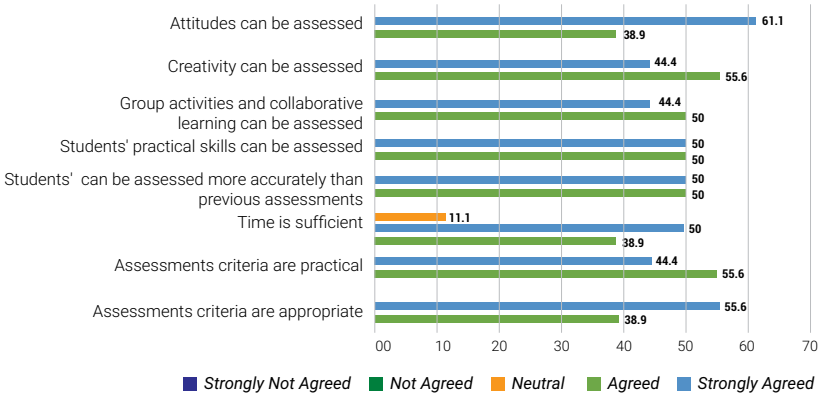
AFTER DOING THE ACTIVITIES STUDENTS WILL BE.....



The figure reflects a strong positive perception of the impact of student activities on skill development. High levels of strong agreement are particularly evident for acquiring effective communication skills, focusing on creativity, and preferring collaborative learning. The results indicate a robust confidence in the effectiveness of student activities in fostering important skills and attributes.

FIGURE 13 : After doing the activities

ASSESSMENT



The figure indicates a strong positive perception of the assessment criteria and methods related to student activities. High levels of agreement are observed across all aspects, particularly in assessing attitudes, creativity, practical skills, and the appropriateness and practicality of assessment criteria. There is unanimous agreement on the practicality of assessments and the accuracy of assessing students compared to previous methods. The majority of respondents also agree on the sufficiency of time allocated for assessments.

FIGURE 14 : Assessment

RESULTS OF THE OBSERVATIONS

- Teachers' contribution and commitment are high
- Overcrowded classrooms
- Classroom space is not enough for some practical activities
- No facilities for blended learning
- Some teachers need technical support specially to conduct assessment during the teaching learning process
- Some teachers tried to do all the activities suggested in the same day
- No attention to every student

STUDENT AND TEACHER FEEDBACK

- Activity Books are more attractive to children
- Suggested separate Activity Book for Pre-language skills
- Some pictures are too small for Gr 1 students
- Requested assessment guidelines separately
- It is easy to understand the achievement level of the student because of the performance standards and rubrics

12.2 Secondary Level

NO OF PILOTED MODULES

The table details the number of piloted modules for various subjects at the secondary level. It covers grades 6 and 10 across different languages (Sinhala and Tamil) and subjects, providing a comprehensive overview of the implementation of these modules.

Table 8 : **Piloted Modules**

SUBJECTS	GRADE	EL		FL	
		SINHALA	TAMIL	SINHALA	TAMIL
Science	6	3	3	1	1
	10	4	4	-	-
Mathematics	6	3	3	1	1
	10	3	3	1	1
Technology	6	2	2	17	17
	10	11	11	24	24
ICT	6	2	2	1	1
	10	2	2	1	1
Commerce	6	1	1	1	1
	10	1	1	1	1
Physical and Health Education	6	3	3	-	-
	10	3	3	-	-
Sinhala	6	3	-	1	-
	10	3	-	1	-
English	6	English- 3		English- 2	
	10	English- 3		English- 2	
Tamil	6	-	3	-	2
	10	-	3	-	2
Religion	6	3	4	-	-
	10	3	4	-	-
Social Sciences	6	4	4	2	2
	10	4	4	2	2
Aesthetics	6	8	8	-	-
	10	4	4	-	-
Classical and Foreign Languages	6	-	-	-	-
	10	-	-	9	1

NUMBER OF SCHOOLS PILOTED

Table 9 : **Piloted school with STMC Subject Modules**

PROVINCE	MEDIUM	SCIENCE	MATHEMATICS	TECHNOLOGY	ICT	COMMERCE	PHYSICAL & HEALTH EDUCATION
Northern	Sinhala			1			
	Tamil	3		5			
Sabaragamuwa	Sinhala	2		5			
	Tamil			3			
Western	Sinhala	3		10			
	Tamil	1		1			
Eastern	Sinhala						1
	Tamil			4			
Uva	Sinhala			5			2
	Tamil			1			
North Western	Sinhala			6			
	Tamil			1			
Central	Sinhala		4	5	4	2	
	Tamil		2	2	2	2	
Southern	Sinhala		4	5		3	
	Tamil		1	1		1	
North Central	Sinhala		3	2	3	2	
	Tamil		1			1	

Table 10 : **Piloted School with Language and Social Sciences Subjects**

PROVINCE	MEDIUM	SINHALA	ENGLISH	TAMIL	RELIGION	SOCIAL SCIENCES	AESTHETICS	CLASSICAL & FOREIGN LANGUAGES
Northern	Sinhala				2			
	Tamil	4		2	14		6	
Sabaragamuwa	Sinhala			2			5	3
	Tamil	4		1			1	
Western	Sinhala	2		3	9		4	1
	Tamil	1		1			3	
Eastern	Sinhala		3			1		
	Tamil		2		5	3	6	1
Uva	Sinhala		4			3	4	
	Tamil		1		2	1	1	
North Western	Sinhala		5		2	4	2	2
	Tamil				1			
Central	Sinhala				1		3	
	Tamil				5		2	
Southern	Sinhala				4		3	
	Tamil				1			
North Central	Sinhala				7		4	
	Tamil				1			

The pilot programme for the secondary stage includes grades 6 and 10 across 117 schools. These schools are distributed among three groups, selected to evaluate the effectiveness of curriculum changes. Each group comprises schools from different provinces, facilitating a comprehensive assessment of the curriculum's impact across various regions

SECONDARY FINDINGS

The pie charts given below collectively illustrate a comprehensive overview of the school types, teacher qualifications, experience, and engagement in professional development within the secondary education pilot programme.

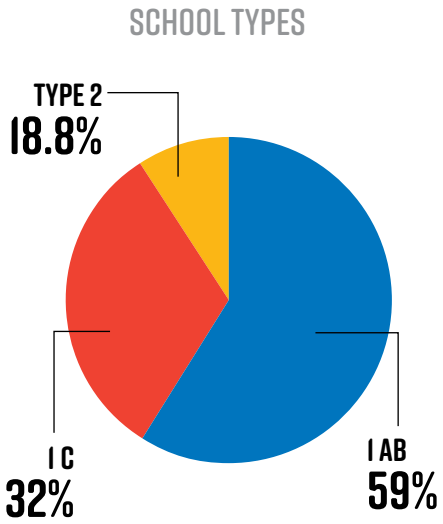


FIGURE 15 : School types

- **NATIONAL SCHOOLS:** Representing the largest proportion at 42%, these schools played a crucial role in the pilot programme, indicating their significant participation and influence in the educational framework.
- **PROVINCIAL SCHOOLS:** Comprising 48% of the total, these schools are pivotal in providing education across various regions and are integral to the pilot study.
- **PRIVATE SCHOOLS:** Making up 10%, these schools contribute to the diversity of the educational landscape and are essential for a comprehensive evaluation.

- **GRADUATE TEACHERS:** Constituting 55%, graduate teachers form the majority, showcasing the emphasis on higher education qualifications among teaching staff.
- **TRAINED TEACHERS:** Accounting for 30%, these teachers have specific training that is vital for the implementation of new curricula and teaching methodologies.
- **UNTRAINED TEACHERS:** At 15%, the presence of untrained teachers highlights the need for further professional development and training programmes.

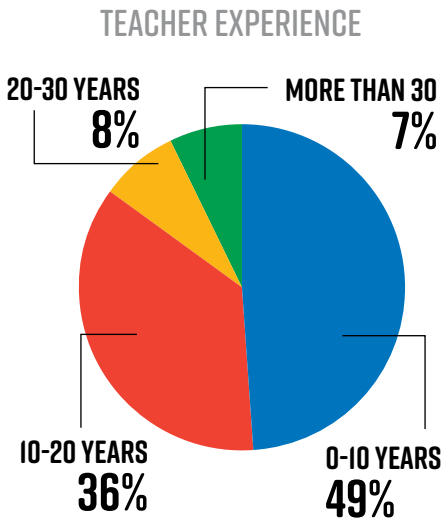


Figure 16

FIGURE 16 : Teacher experience

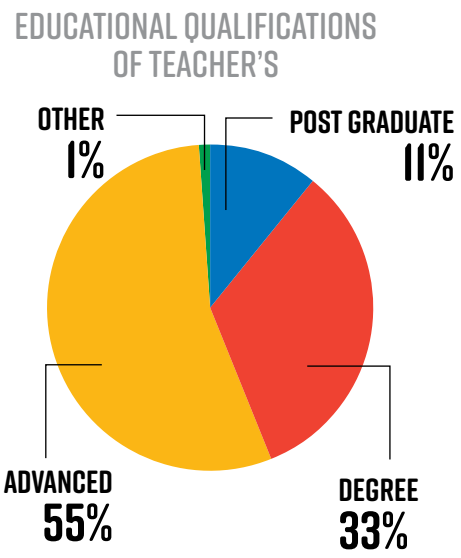


FIGURE 17 :
Educational Qualification of Teachers

- **LESS THAN 5 YEARS:** Teachers with less experience make up 25%, bringing fresh perspectives and new approaches to teaching.
- **5-10 YEARS:** Representing 35%, these teachers balance new ideas with a solid foundation of practical experience.
- **MORE THAN 10 YEARS:** Making up 40%, experienced teachers provide stability, depth of knowledge, and leadership within schools.

- **PARTICIPATED IN PD:** 70% of teachers have engaged in professional development activities, underscoring the commitment to continuous improvement and adaptation to new educational strategies.
- **NOT PARTICIPATED IN PD:** The remaining 30% indicate areas where further efforts are needed to ensure all teachers are equipped with the latest skills and knowledge for effective teaching.

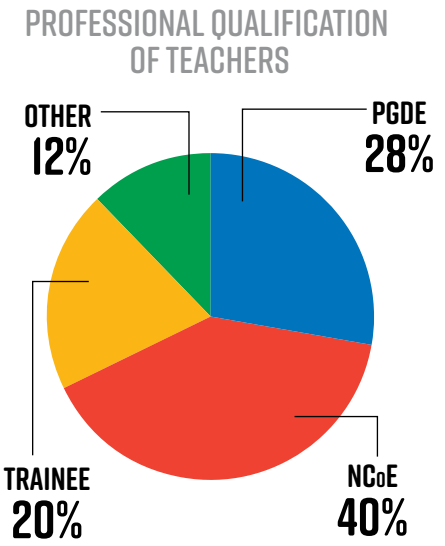


FIGURE 18 :
Professional Qualification of Teachers

CONTENT OF THE MODULE

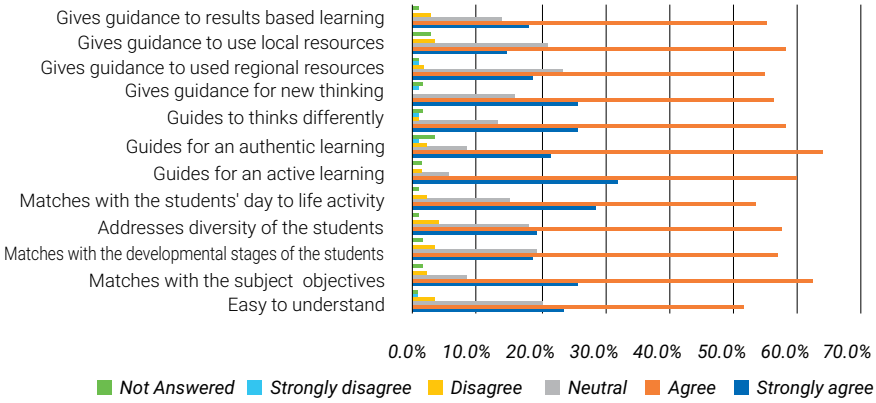


FIGURE 19 : Content of the module

The bar chart indicates a highly positive reception from teachers regarding the content of the module.

KEY POINTS INCLUDE:

- **EASY TO UNDERSTAND:** A significant majority of teachers agree or strongly agree that the content is easy to understand.
- **DEVELOPMENTAL APPROPRIATENESS:** The content matches students' developmental stages well, with high agreement levels.
- **RELEVANCE TO DAILY LIFE:** Teachers strongly agree that the content is relevant to students' day-to-day activities.
- **AUTHENTIC LEARNING AND NEW THINKING:** The content guides authentic learning and fosters new thinking, with high levels of agreement.
- **USE OF LOCAL RESOURCES:** Teachers agree that the content effectively guides regarding the use of local resources.

Overall, the chart shows that teachers find the module content well-aligned with educational objectives and developmental needs

ACTIVITIES OF THE MODULES

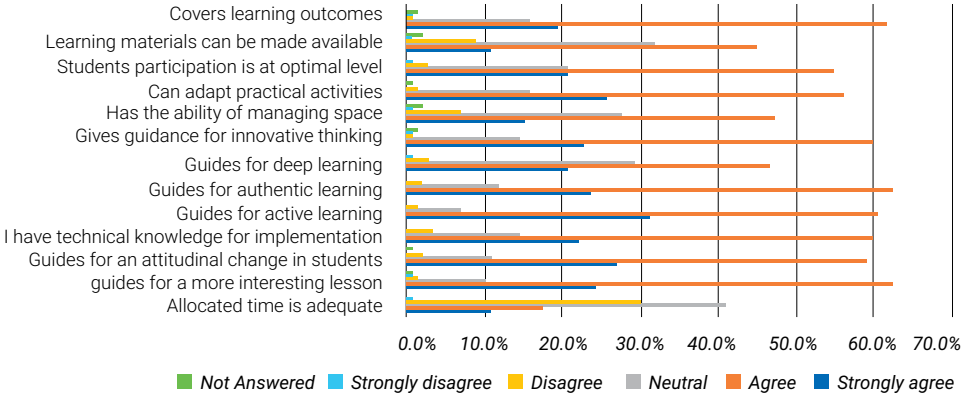


FIGURE 20 : Activities of the modules

The second bar chart reflects teachers' positive views on the activities within the modules:

- Adequate Time Allocation: Teachers largely agree that the time allocated for activities is adequate.
- Attitudinal and Active Learning: The activities guide attitudinal change and active learning, with high levels of agreement.
- Deep Learning and Space Management: Teachers agree that the activities promote deep learning and can be managed within the given space.
- Student Participation and Learning Outcomes: High levels of agreement indicate that activities cover learning outcomes and encourage student participation effectively.

The chart shows a strong positive perception of the module activities, highlighting their role in achieving learning outcomes and engaging students

STUDENTS, AFTER STUDYING THE MODULE

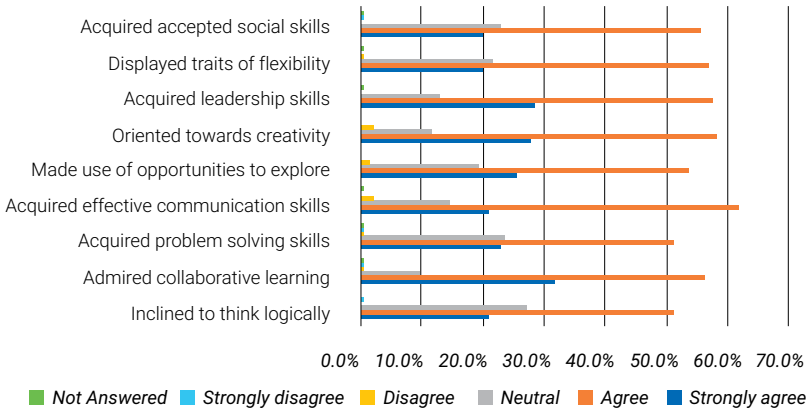


FIGURE 21 : Students, after studying the module

The third bar chart presents teachers' views on the impact of the module on students' skills development:

- Logical Thinking and Problem-Solving Skills: Teachers strongly agree that students are inclined to think logically and acquire problem-solving skills.
- Collaborative Learning and Communication Skills: High levels of agreement on students' admiration for collaborative learning and improvement in communication skills.
- Exploration and Creativity: Teachers agree that students make use of the opportunities to explore and show orientation towards creativity.
- Leadership and Social Skills: The module helps students develop leadership skills and accepted social skills, with high agreement levels.

This chart indicates that the module significantly contributes to developing essential skills in students

ASSESSMENT AND EVALUATION

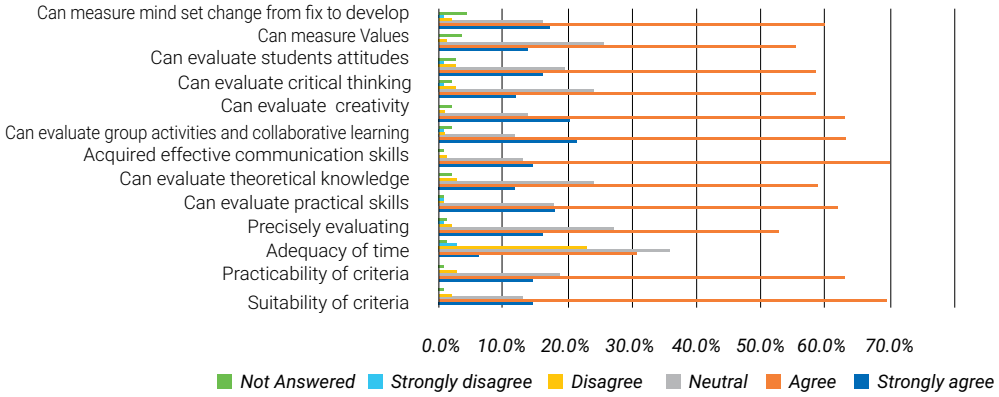


FIGURE 22 : Assessment and Evaluation

The fourth bar chart focuses on teachers' perspectives on assessment:

- Assessment Criteria: Teachers strongly agree that the assessment criteria and methods are practical and accurate.
- Creativity and Practical Skills: High levels of agreement indicate that the assessments effectively evaluate students' creativity and practical skills.
- Time Allocation for Assessment: Teachers agree that the time allocated for assessments is sufficient.
- Practicality and Attitudes: There is unanimous agreement on the practicality of the assessments and their effectiveness in evaluating students' attitudes.

Overall, the chart shows that teachers perceive the assessment methods as practical, accurate, and well-suited for evaluating various student skills.

These bar charts collectively demonstrate a strong positive perception of the module's content, activities, impact on students' skill development, and assessment methods from the teachers' perspective.

STUDENTS' COMMENTS

The module is presented in a simple way, it is easy to remember the use of colour in the module significantly improved their interest in reading the material content is ideally designed to improve their skills.

Appreciated practical based activities as it enables them to retain more low teacher involvement and learning with peers made them happy and effective learning. This indicates that students appreciate the autonomy and peer interactions facilitated by the module Students said that the collaboration in doing activities makes them enjoy learning.

Easier to remember due to its connection with real-world scenarios. Group activities and sharing ideas were appreciated Simple and attractive. When reading the module, it feels as if the teacher is teaching them. The design ensures that students can easily carry and access the modules better than the text books. Appreciated peer-assessment and self-assessment.

TEACHERS' & ISAs' COMMENTS

- Presentation is attractive and use of images and colours motivates students to learn. Simpler and more attractive than text books.
- The content was presented in an understandable and clear manner, new knowledge and Technology, internet is integrated, content is age appropriate
- Content is designed to improve their skills in technical areas

- The relevance of the modules to real-world applications
- Students were actively engaged
- Students liked the learning process
- Teaching part has been reduced. Students can actively participate in learning
- Keeps students engaged and interested in the material.
- Incorporates different assessment methods such as self-assessment, peer assessment was appreciated and very useful to understand students' performance
- Rubrics make clearer and more transparent the assessment in practical activities
- Satisfied with overall appearance
- Attractive & Student friendly
Modules employ colours effectively to aid learning
- Creatively presented in relation to new teaching methods
- Students can easily understand and promotes self-learning

ISSUES
STUDENTS' PERCEPTIONS

- Sometimes they had to wait a long time to connect to the internet
- Need more instructions for some practical activities
- Some pictures need to be larger in size
Slow internet has made them distracted from continuing
- The module page size should be a little larger
- Some picture should be larger and clearer

TEACHERS' & ISAs' PERCEPTIONS

- In some schools there was a problem with accessing of QR codes due to locking of the web cam of tabs. Unlocking was not possible
- Lack of computer facilities
- Poor internet connections (have to wait a long time to connect to the Internet)
- Still the new approach is not fully familiar to teachers
- Engaging in group activities is difficult in classrooms with limited space
- Difficulties in taking students to the fields outside the school (transport and safety)
- Insufficient financial support for buying materials for practical activities

SUGGESTIONS AND RECOMMENDATIONS

- To conduct a comprehensive training for teachers
- Recruit qualified subject specific-teachers
- To provide necessary physical resources (Eg-computers/ tabs, internet connection, laboratory equipment, projectors, smart boards)
- Provide necessary infrastructure such as laboratories
- Provide sufficient financial support for learning the teaching materials, and establish a sound mechanism for schools
- Establish a strategy to reduce student to teacher ratio
- Continuous monitoring of the implementation process
- Establish an interdisciplinary approach in order to implement the process smoothly.

12.3 Preliminary Findings of the Action Research Studies

RESEARCH METHODOLOGY

Grade 1 teachers involved in new 'Activity Book' and Grade 6 and 10 teachers involved in implementing new 'Modules on selected subjects' were selected to conduct action research studies.

OBJECTIVES

- To identify practical measures that can be adopted to inform teachers about the content of the new curriculum reforms
- To provide an empirical basis for the successful implementation of new educational reforms by strengthening teacher competence in action research
- To analyze how action research contributes to the development of teacher competencies in implementing activity book /module in classrooms
- To gain an in-depth understanding of the issues that arise during the implementation of the pilot project
- To disseminate indigenous knowledge by presenting action research findings locally and internationally
- To make recommendations for the successful implementation of new curriculum reforms

POPULATION AND SAMPLE

Forty-six schools out of 225 schools that are implementing new educational reforms were selected purposively. Teachers who were in a position to conduct action research were selected as the sample.

Fifteen primary schools (Sinhala=11; Tamil =6) and 31 secondary schools (Sinhala =19; Tamil=15) were selected as the sample. Primary teachers (n=15) who teach the subjects

- Environmental Related Activities (n = 2)
- Activity Based Oral English (n = 2)
- Mathematics (n = 5)
- Second Language (n = 2)
- First Language (n = 4)

and Secondary teachers (n=31) who teach the subjects

- Technology (n= 8)
- Commerce (n= 7)
- Mathematics (n= 9)
- Science (n= 7)

were selected as the sample. Of the selected sample, only 15 primary teachers and 20 secondary teachers participated for in the action research.

RESEARCH METHOD

The collaborative Action Research method was applied to achieve the research objectives. Research experts and curriculum developers of the National Institute of Education were consulted to plan and implement the action research at school level. Teachers who were selected to conduct the action research were guided on action research via zoom meetings and face to face meetings.

They were guided to identify differences between the previous curriculum materials and the new curriculum materials developed. Then they were guided to identify problems faced by teachers in implementing "Activity Books" at Grade 1 and "Modules" at Grade 6 or 10. Further, teachers were guided to intervene to solve the problems. Finally, they were guided to write their experiences as action research reports.

RESEARCH PROCESS

- Selection of teachers from the schools where the new curriculum reforms were piloted.
- 1st meeting for the teachers to introduce new reforms and brief introduction

on action research and maintaining 'Reflective Journals'.

- 2nd meeting to introduce action research to teachers in-depth. Guided to identify research problems related to 'Activity Book' or 'Module.' Problems may be related to the
  - o content of 'Activity Book' or 'module'
  - o teacher capacity related to the implementation of 'Activity Book' or 'Module'
  - o student learning patterns related to the 'Activity Book' or 'Module'

Further, teachers were guided to write the action research report.

- 3rd meeting was conducted to refine and finalize the research reports.
  - o Preliminary ideas were collected from the teachers on their experiences on 'Activity Books' and 'Modules.'

OUTCOME OF THE RESEARCH SERIES

- Grassroot level experiences of teachers who will implement the new curriculum reform could be documented
- Ideas for the revision of draft 'Activity Books' and 'Modules' were identified through the action research reports
- Capacity development programmes for teachers needed to be implemented to enhance teachers' capacity to implement new curriculum reforms were identified
- Teacher's creative ideas to solve problems that emerged during the implementation of activity books and modules need to be identified
- Student's perspectives on new activity books and modules in comparison to previous syllabus and curriculum materials were identified

Preliminary findings of the Action Research series based on the ideas of 35 Action Researchers

When implementing the curriculum reforms on the basis of the data collected from the study sample, enquiry was made into the strengths, weaknesses, and constructive suggestions. As per the written reports of 35 researchers (Primary and Secondary) involved in this research project the characteristic listed in the sequel identified with regard to all the subjects in common under the following expects;

1. Strengths of the modules and activity books proposed to implement the new curriculum
2. Weaknesses of the proposed modules and activity books
3. Suggestions proposed by the teachers to overcome the weaknesses identified

STRENGTHS

- Activity books and modules were prepared based on student-centered techniques.
- Learning is based on student activities.
- Facilitate both teachers' and students' teaching learning process.
- Relevant to day-to-day life of students.
- Improves of presentation skills of students.
- Activity books and modules have been developed attractively.
- Opportunities for self-learning of students are provided.
- Students are directed to conduct group activities.
- Prepared considering the students' interests.
- Organized in a simple way and reader friendly manner.
- Students are directed to use technology.
- Developed based on 21st century skills.
- New assessment methods have been introduced.
- Learning opportunities are provided based on practical experiences.

- Absence of note-taking.
- Opportunities for soft skills are provided.
- Exam oriented approach is reduced.
- Directed to self-evaluation in classroom.
- Activities are organized to improve empathy.
- Guided to see based on positive perspectives on future.
- Guided to explore knowledge.
- Due to less subject content, stress of students is lessened.
- Traditional teaching methods are avoided.

Strengths of Primary and Secondary Activity Books and Modules can be categorized into 6 themes based on the qualitative analysis **(FIGURE 23).** Themes relevant to these strengths identified with regard to all the subjects. Table 11 presents the six aforementioned themes and their associated strengths separately.

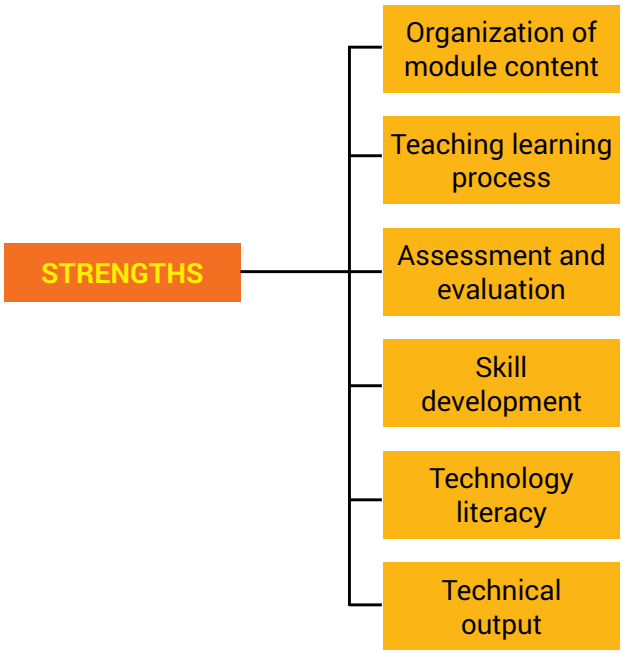


FIGURE 23

Table 11 : **Themes and strengths of representing themes**

THEMES	STRENGTH OF REPRESENTING THEMES
Organization of module content	• Learning is based on student activities • Activity books and modules are prepared based on student-centered techniques • Relevant to day-to-day life of students • Students are directed to conduct group activities • Prepared considering the students' interests • Activities are organized to improve empathy • Due to less subject content, stress of students is lessened
Teaching learning process	• Facilitate both teachers' and students' teaching learning process • Opportunities for self-learning by students are provided • Learning opportunities are provided based on practical experiences • No note-taking • Traditional teaching methods are avoided

Assessment and evaluation	• New assessment methods are introduced • Exam oriented approach is reduced • Directed to self-evaluation in classroom
Skill development	• Improvement of presentation skills of students • Guided to see based on positive perspectives on future • Developed based on the 21st century skills • Opportunities for soft skills are provided • Guided to explore knowledge
Technology literacy	• Students are directed to use technology
Technical output	• Activity books and modules have been developed attractively • Organized in a simple way and reader friendly manner

Strengths as well as weaknesses of the modules identified from the teacher responses are given below.

WEAKNESSES

Weaknesses highlighted in relation to primary and secondary grades during the first term are mentioned below.

- Complex subject content
- Backwardness of low achieving students in group activities
- Exercise homework/ post work
- Activities are two simples
- Some activities are too long
- Time is not adequate
- Difficulties of organizing activity in classroom with large number of students
- Difficulty of maintaining assessment documents
- Much time is needed for rubric based assessment
- Content of videos is not clear to students
- More time is spent on watching videos
- Lack of internet and technological facilities
- Mismatch between the videos and the subject content
- Subject content with controversial facts
- Difficulties in awarding marks
- Non-availability of learning materials and stationery
- Dearth of learning aids
- Some activities are not age-appropriate
- Inability to conduct some activities practically due to the location of the school (e.g. no green garden)
- Mismatch between some proposed activities and the content
- Preparation of modules in different formats

Classification of responses relating to the weaknesses of the modules according to the above themes became difficult. Therefore, some other themes were mooted in addition to the said themes.

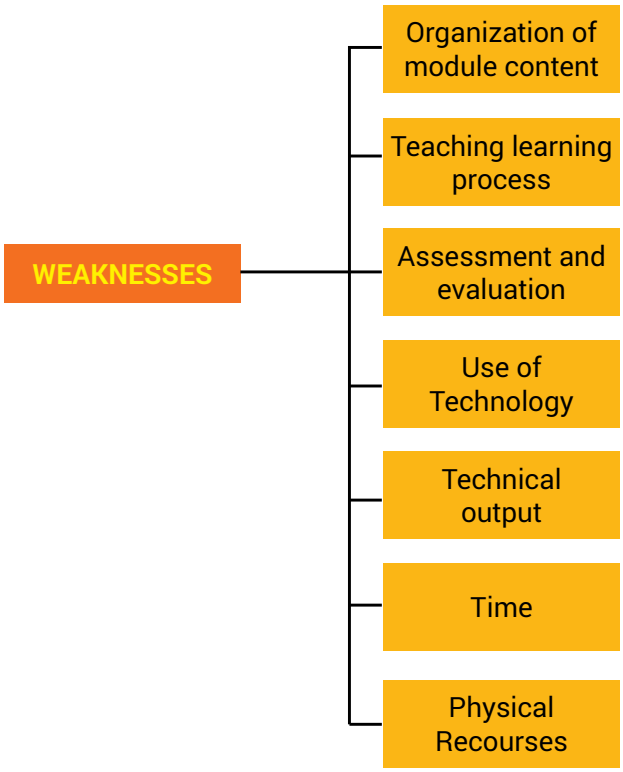


FIGURE 24 : Themes relevant to those weakness identified

Table 12 shows the classification done in accordance with it.

Table 12 : **Themes and weaknesses representing the theme**

THEMES	WEAKNESSES OF REPRESENTING THEMES
Organization of module content	• Complex subject content • Content of videos is not clear to students • Mismatch between the videos and the subject content • Subject content with controversial facts • Some activities are not age-appropriate
Teaching learning process	• Backwardness of low achieving students in group activities • Exercise homework/ post work • Activities are two simples • Some activities are too long • Difficulties in organizing activity in classroom with large number of students • Some proposed activities do not match the content
Assessment and evaluation	• Difficulty in maintaining assessment documents • Much time is needed for rubric based assessment • Difficulties in awarding marks
Use of Technology	• Lack of internet and technological facilities
Technical output	• Preparation of modules in different formats
Time	• Time is not adequate • More time is spent on watching videos
Physical Resources	• Non-availability of learning materials and stationery • Death of learning aids • Inability of conducting some activity practically due to the location of the school (e.g. no green garden)

The suggestions made by the teachers to overcome the weaknesses identified are given below.

SUGGESTIONS FOR IMPROVEMENTS

- Teachers should be guided to implement some parts of the activity books and modules
- More time needed to implement activities related to modules
- Reduce the reading material
- Provide sufficient examples
- Provide opportunities to answer in the Activity Books/Modules
- Reduce the amount of home work and allow time within the school hours to complete activities
- When explaining problems reduce words and increase the figures
- Help of upper-class students is taken when difficult activities are encountered
- Prepare the teacher instructional manual in a unique and teacher sensitive manner
- An ethical guideline needs to be introduced on using different media
- Provide internet facilities for schools
- To evaluate student activities, a practical process should be introduced

13
Discussion

Discussion

13

13.1 Comparative Analysis of Findings Across Grades

The comparative analysis of the findings across different grades highlights several key trends and disparities in the implementation and outcomes of the pilot programme.

At the primary level, significant improvements were noted in student engagement and understanding in subjects like Mother Tongue, Mathematics, and Environmental Activities. For instance, primary students demonstrated enhanced comprehension and application skills in Mathematics and Environmental Activities compared to their counterparts in secondary grades.

Conversely, secondary level students showed a stronger performance in subjects requiring analytical and critical thinking, such as Science and Technology. The data suggests that while younger students benefit more from interactive and activity-based learning approaches, older students excel when provided with structured, subject-specific content

Furthermore, the analysis revealed that the medium of instruction plays a crucial role in student performance. Schools with instruction in the mother tongue generally outperformed those with instruction in the bilingual media, indicating a potential area for policy intervention to ensure linguistic equity across the curriculum.

13.2 Alignment with the Goals of the National Curriculum Framework

The pilot programme's findings align well with the overarching goals of the National Curriculum Framework (NCF). The NCF aims to foster holistic education, promoting cognitive, emotional, and social development through a balanced curriculum. The primary level's success in integrating activity-based learning aligns with the NCF's goal of making education more engaging and student-centered.

Moreover, the observed improvements in subjects such as Science and Technology at the secondary level reflect the NCF's objective to strengthen STEM education. The emphasis on practical, hands-on learning experiences in these subjects supports the NCF's vision of producing graduates who are well-equipped with critical thinking and problem-solving skills.

However, the discrepancies in performance based on the medium of instruction highlight a gap in achieving the NCF's equity goals. Addressing these disparities will be crucial for ensuring that all students, regardless of linguistic background, have equal opportunities to benefit from the curriculum reforms.

3 Implications for Broader Implementation

The insights gained from the pilot programme have significant implications for the broader implementation of the NCF. First, the success of activity-based and student-centered learning approaches at the primary level suggests that these methods should be scaled up and integrated across all primary schools nationwide. This will require targeted teacher training and the development of supportive instructional materials.

At the secondary level, the strong performance in STEM subjects indicates the need to further invest in these areas, including enhancing laboratory facilities, providing modern technological tools, and continuing professional development for teachers. This focus will help sustain and build on the gains observed during the pilot.

Additionally, addressing the challenges related to the medium of instruction will be essential for achieving equitable educational outcomes. Policies and interventions designed to support students learning in their second language should be prioritized. This could include bilingual education models, additional language support classes, and resources tailored to the needs of these learners.

In conclusion, the findings from the pilot programme provide a robust foundation for the broader implementation of the NCF. By building on the successes and addressing the identified challenges, the education system can move closer to realizing the goals of providing a holistic, inclusive, and equitable education for all students in Sri Lanka.

14 Recommendations

14 Recommendations

14.1 Enhance Activity-Based Learning at Primary Level

1. EXPAND TEACHER TRAINING PROGRAMMES:

■ Conduct comprehensive training sessions for primary school teachers focusing on more activity-based learning methodologies. These should include hands-on workshops, continuous professional development programmes, and access to online resources and communities of practice.

2. DEVELOP AND DISTRIBUTE INSTRUCTIONAL MATERIALS:

■ Create and provide teachers with high-quality, age-appropriate instructional materials and resources that facilitate activity-based learning. This should include lesson plans, manipulatives, visual aids, and digital resources.

3. ESTABLISH SUPPORTIVE LEARNING ENVIRONMENTS:

■ Ensure that classrooms are equipped with the necessary infrastructure to support interactive learning, such as flexible seating arrangements, learning corners, and ample space for group activities.

14.2 Strengthen STEM Education at Secondary Level

1. IMPROVE LABORATORY AND TECHNOLOGICAL FACILITIES:

■ Invest in upgrading and maintaining science laboratories and technological tools in secondary schools. This includes ensuring that all schools have access to modern equipment and materials for conducting experiments and practical sessions.

2. PROFESSIONAL DEVELOPMENT FOR STEM TEACHERS:

■ Provide ongoing training and support for STEM teachers to keep them updated with the latest advancements in their fields. Encourage participation in workshops, conferences, and online courses related to STEM education.

3. PROMOTE INQUIRY-BASED LEARNING:

■ Encourage the adoption of inquiry-based learning approaches in STEM subjects, where students are guided to explore, ask questions, and conduct experiments to understand scientific concepts deeply.

14.3 Address Linguistic Equity

1. IMPLEMENT BILINGUAL EDUCATION MODELS:

■ Introduce and support bilingual education models in schools where instruction to be in two languages. These models should provide students with a strong foundation in both their mother tongue and the English Language.

2. PROVIDE ADDITIONAL LANGUAGE SUPPORT:

■ Establish language support programmes for students who struggle with the medium of instruction. This could include after-school language classes, tutoring sessions, and the use of language learning software.

3. DEVELOP MULTILINGUAL EDUCATIONAL RESOURCES:

■ Create and distribute educational materials in multiple languages to ensure that all students can access learning resources in their preferred language. This includes textbooks, digital content, and supplementary materials.

14.4 Foster Holistic Education

1. INTEGRATE SOCIAL AND EMOTIONAL LEARNING (SEL):

■ Incorporate social and emotional learning into the curriculum to promote students' overall well-being. Provide training for teachers on SEL practices and integrate SEL activities into daily classroom routines.

2. PROMOTE EXTRA CURRICULAR ACTIVITIES:

■ Encourage schools to offer a wide range of extra curricular activities that cater to diverse student interests, such as sports, arts, music, and clubs. This helps in the holistic development of students beyond academics.

3. ENGAGE PARENTS AND COMMUNITIES:

■ Strengthen the involvement of parents and local communities in the educational process. Organize workshops and events to inform and involve parents in their children's learning journey, and encourage community members to participate in school activities and programmes.

14.5 Monitor and Evaluate Implementation

1. ESTABLISH ROBUST MONITORING SYSTEMS:

■ Develop and implement monitoring and evaluation systems to track the progress and impact of the curriculum reforms. Use data-driven approaches to assess the effectiveness of implemented strategies and make necessary adjustments.

2. CONDUCT REGULAR FEEDBACK SURVEYS:

■ Gather regular feedback from teachers, students, and parents to understand the challenges and successes of the curriculum implementation. Use this feedback to inform ongoing improvements and policy decisions.

3. SHARE BEST PRACTICES:

■ Create platforms for schools and educators to share best practices and success stories. This could include online forums, newsletters, and annual conferences where educators can collaborate and learn from each other's experiences

15 Conclusion

15 Conclusion

The piloting of the National Curriculum Framework (NCF) has provided valuable insights into the strengths and areas for improvement in the current educational practices across different grade levels. Through data analysis and findings, it is evident that the implementation of activity-based learning at the primary level and the emphasis on STEM education at the secondary level have yielded positive outcomes. However, there remain significant challenges, particularly in addressing linguistic disparities and ensuring equitable educational opportunities for all students.

The discussion has highlighted the necessity of a multifaceted approach to curriculum reform. At the primary level, the success of interactive and student-centered methodologies underscores the need for comprehensive teacher training, the development of engaging instructional materials, and the creation of supportive learning environments.

For secondary education, enhancing laboratory facilities, providing continuous professional development for STEM teachers, and promoting inquiry-based learning are critical for sustaining and building on the gains achieved during the pilot programme.

Addressing linguistic equity is paramount for achieving the NCF's vision of inclusive education. Implementing bilingual education models, providing additional language support, and developing multilingual educational resources are essential steps towards ensuring that all students can access quality education regardless of their linguistic background. Furthermore, fostering holistic education through social and emotional learning, extracurricular activities, and strong community engagement is crucial for the overall development of students.

The recommendations provided aim to build on the successes of the pilot programme and address the identified challenges. By implementing these practical strategies, the education system can move closer to realizing the goals of the NCF. Continuous monitoring, regular feedback, and the sharing of best practices will be vital for the ongoing improvement and refinement of the curriculum reforms.

In conclusion, the pilot programme has laid a solid foundation for the broader implementation of the NCF. By leveraging the insights gained and addressing the challenges head-on, Sri Lanka can ensure that its education system is holistic, inclusive, and equitable, ultimately leading to the betterment of students and society at large.

16

Way Forward

16

Way Forward

As highlighted, this report represents the first interim analysis of the piloting process. We have already taken steps to incorporate the initial recommendations into the review and enhancement of the first-term Activity Books and Modules. This iterative process ensures that the curriculum materials are continuously improved, aligning with the feedback received from the ongoing piloting.

Moving forward, the team will maintain this research-based approach to gather comprehensive feedback, which is crucial for the smooth implementation of the curriculum transformation scheduled for 2025. The continuation of this piloting process with a robust and scientific methodology is essential to obtaining reliable data that will inform the next steps.

Upon the completion of the piloting across all three terms, a final report will be compiled. This report will consolidate the insights and data gathered, providing a solid foundation for the proposed recommendations. It is imperative that these recommendations are addressed by the relevant authorities and stakeholders to ensure the effective implementation of the curriculum transformation in 2025.

17 References

References

17

16.1 List of all References and Sources used in the Report

Hembree, R. (1988). Correlates, causes, effects, and treatment of test anxiety. Review of Educational Research, 58(1), 47–77. https:// doiorg/10.3102/00346543058001047

Kellaghan, T., & Greaney, V. (2019). Public examinations examined. World Bank. https://doi.org/10.1596/ 978-1-4648-1418-1

Akter, M. S., Shahriar, H., Lo, D., Sakib, N., Qian, K., Whitman, M., & Wu, F. (2023, 26-30 June 2023). Authentic Learning Approach for Artificial Intelligence Systems Security and Privacy. Paper presented at the 2023 IEEE 47th Annual Computers, Software, and Applications Conference (COMPSAC).

Yim, I. H. Y., & Su, J. (2024). Artificial intelligence (AI) learning tools in K-12 education: A scoping review. Journal of Computers in Education. doi:10.1007/ s40692-023-00304-9

Newmann, F. M., Marks, H. M., & Gamoran, A. (1996). Authentic Pedagogy and Student Performance. American Journal of Education, 104(4), 280-312.

Rizvi, S., Waite, J., & Sentance, S. (2023). Artificial Intelligence teaching and learning in K-12 from 2019 to 2022: A systematic literature review. Computers and Education: Artificial Intelligence, 4. doi:10.1016/j. caeai.2023.100145

https://usergeneratededucation. wordpress. com/2019/01/20/authentic- learning-experiences/

Piaget, J. (1954). The construction of reality in the child. . (M. Cook, Trans.). Basic Books. doi:https://doi. org/10.1037/11168-000

Piaget, J. (1973). To understand is to invent: the future of education; right to education in the mo. Donovan, M., Ed, B., & Pellegrino, J. (1999). How People Learn: Bridging Research and Practice.

Brown, J. S., Collins, A., & Duguid, P. (1989). Situated Cognition and the Culture of Learning. Educational Researcher, 18(1), 32-42. doi:10.3102/0013189X018001032

Mayo, J. A. (2010). Constructing undergraduate psychology curricula: Promoting authentic learning and assessment in the teaching of psychology. Washington, DC: American Psychological Association

Authentic Learning: Bringing Real-World Relevance to the Classroom | Education Advanced, Inc.

S. Fernando, S. P. (2022). The Authentic Learning Approach in the Teaching-Learning Process: An Overview based on a Systematic Review Approach. International Open University Research Sessions (iOURS 2022).

Ariyarathna, G. & Rajapakse, R.. (2024). Teaching Artificial Intelligence in Junior Secondary Education Using an Authentic Approach: A Qualitative Evaluation of the Grade Six AI Learning Module in Sri Lanka. 1-7. 10.1109/ SCSE61872.2024.10550813

18
Appendices

Appendices

18

17.1 Additional Data and Analysis

**PILOTING OF NCF - GRADE 1, 6, 10:
THE PRINCIPAL'S SURVEY JULY 2024**

IMPLEMENTATION OF THE PILOT PROGRAMME IN THE SCHOOL

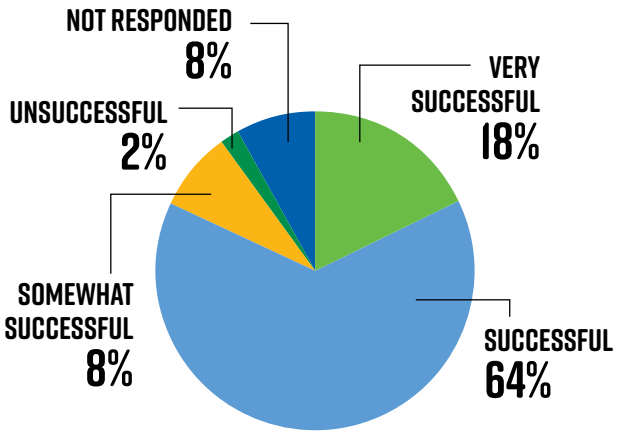


FIGURE 25

SUPERVISION OF THE PILOT PROGRAMME AS A PRINCIPAL

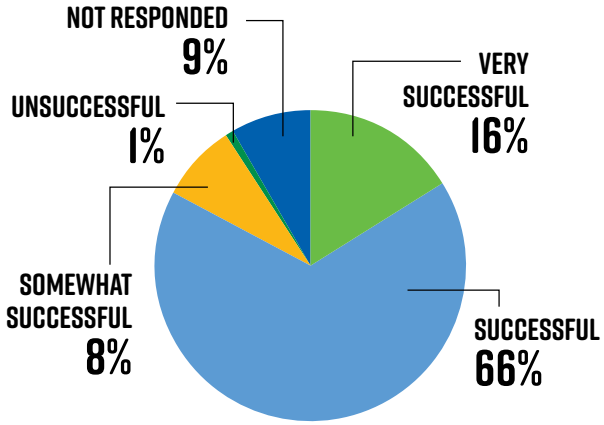


FIGURE 26

TEACHER INVOLVEMENT IN THE CLASSROOM FOR THE MODULE IMPLEMENTATION

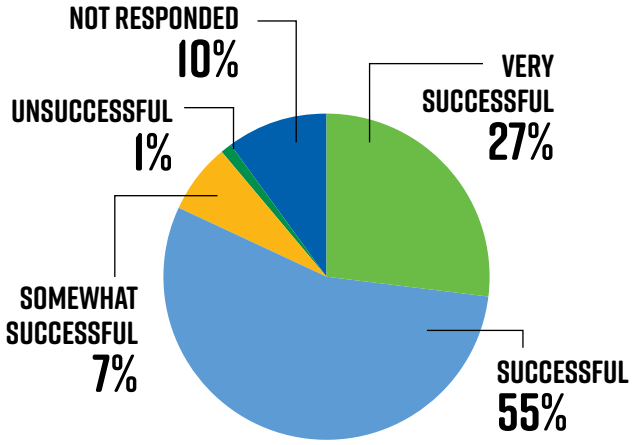


FIGURE 27

PARTICIPATION OF STUDENTS IN THE CLASSROOM DURING THE MODULE IMPLEMENTATION

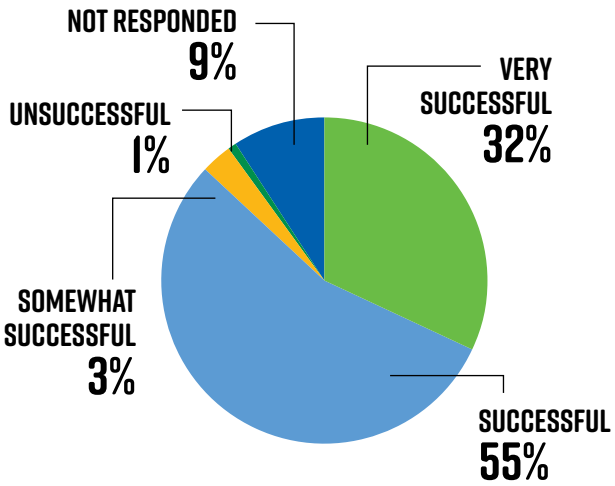


FIGURE 28

(The survey was administrated at the 2nd awareness raising session conducted on 4th July 2024)

17.2 Questionnaire for the Principals of the Sample

Pilot Programme on New Curriculum Reforms-2024

Principal Opinion Poll

1.0 Background Information

1.1 Name of the School - ……

1.2 Province - ……

1.3 District - ……

1.4 Educational Zone - ……

2.0: Respond to the statements regarding the implementation of the Pilot Programme in your school (place a in the appropriate box).

	Statement	**Very Successful**	**Successful**	**Somewhat Successful**	**Unsuccessful**
2.1	Implementation of the pilot Programme in the school				
2.2	Supervision of the pilot Programme as a principal				
2.3	Teacher involvement in the classroom for the module implementation				
2.4	Participation of students in the classroom during the module implementation				
		Very Good	**Good**	**Somewhat Good**	**Not Good**
2.5	2.5 Parental responses on the implementation of the modules				

3.0 Your opinions on the implementation of the pilot Programme.

……

……

……

……

……

……

17.3 Observation Schedules

කාර්යාලීය ප්‍රයෝජනය සඳහා

යෝජිත විෂයමාලා ප්‍රතිසංස්කරණ පිළිබඳ නියමු පර්යේෂණය - 2024

ඉගෙනුම් ඉගැන්වීම් ක්‍රියාවලිය නිරීක්ෂණ පත්‍රිකාව

1.0 පසුබිම් තොරතුරු

1.1 පළාත :

1.2 කලාපය :

1.3 පාසල් වර්ගය :

1.4 විෂයය :

1.5 ශ්‍රේණිය :

1.6 මොඩියුලයේ නම :

1.7 දෙපාර්තමේන්තුව/ඒකකය :

1.8 මාධ්‍යය :

1.9 ක්‍රියාකාරකම සහ මොඩියුලයේ පිටු අංකය :

1.10 දිනය :

1.11 වේලාව :

2.0 පාසලේ පසුබිම හා භෞතික පරිසරය

මොඩියුලය ක්‍රියාත්මක කිරීමට සුදුසු වන පරිදි	ඔව්	නැත
2.1 පාසලේ, ගොඩනැගිලි ක්‍රමානුකූල ව සකස් කර ඇත		
2.2 පාසල් වත්ත ඉඩකඩ සහිත ය		
2.3 පාසල් වත්ත පිරිසිදු හා ප්‍රියමනාප ලෙස සකස් කර ඇත		
2.4 පාසල් වත්ත ඉගෙනුම් පරිසරයක් ලෙස සකස් කර ඇත		
2.5 පාසල් පරිසරය බාහිර බාධාවලින් තොර ය		
2.6 සිසු ආරක්ෂාව තහවුරු කර ඇත		

2.7 මේ පිළිබඳ ව ඔබ සතුව වෙනස් අදහස් ඇත්නම් සඳහන් කරන්න

.....

17.4 Questionnaire for the Teachers of the Sample

කාර්යාලීය ප්‍රයෝජනය සඳහා ☐☐

යෝජිත විෂයමාලා ප්‍රතිසංස්කරණ පිළිබඳ නියමු පර්යේෂණය - 2024

ගුරු ප්‍රශ්නාවලිය

1.0 පසුබිම් තොරතුරු

1.1 පාසල අයත් පළාත :.....

1.2 පාසල අයත් අධ්‍යාපන කලාපය :.....

1.3 පාසල් වර්ගය : 1 AB ☐ 1C ☐ 2 වර්ගය ☐ 3 වර්ගය ☐

1.4 ශ්‍රේණිය :.....

1.5 විෂයය :.....

1.6 මාධ්‍යය :.....

1.7 මොඩියුලයේ නම :.....

2.0 ගුරුවරයා පිළිබඳ තොරතුරු

2.1 ප්‍රමිතිරි බව : ස්ත්‍රී ☐ පුරුෂ ☐

2.2 ගුරු සේවයේ පළපුරුද්ද : අවුරුදු ☐ මාස ☐

2.3 අධ්‍යාපන සුදුසුකම් : පශ්චාත් උපාධි ☐ උපාධි ☐

අ.පො.ස. (උ. පෙ.) ☐ අ.පො.ස. (සා. පෙ.) ☐

වෙනත් (සඳහන් කරන්න)

.....

2.4 වෘත්තීය සුදුසුකම් : පශ්චාත් උපාධි අධ්‍යාපන ඩිප්ලෝමා ☐

ශික්ෂණ විද්‍යා ඩිප්ලෝමා ☐

පුහුණු ☐

වෙනත් (සඳහන් කරන්න)

.....

Design and Printed by
DESIGN WAVES (PVT) LTD.
87d, Ruwan Place, Boralesgamuwa.
0112 150 100
■ **designwaves.lk**

ISBN 978-624-5729-28-9