



IMPLEMENTING NATIONAL CURRICULUM REFORMS THROUGH
APP-BASED LEARNING FOR SCHOOL LEADERS IN SECONDARY EDUCATION
(INCREASE)

TRAINING NEEDS ASSESSMENT REPORT

Strengthening the capacity of school leaders to effectively lead implementation of Competency Based Curriculum in Junior Secondary School (JSS)

MARCH
2023

PREPARED BY:

FOREWORD

Education is a fundamental human right as enshrined in the Kenya Constitution 2010. Thus, the country attaches paramount importance toward provision of quality education as an enabler for socioeconomic transformation of the country. Indeed, curriculum reform is one of the flagship projects of the Kenya Vision 2030. In this regard, the Ministry of Education (MoE) started implementation of the competency-based curriculum (CBC) in 2017 which is now at the Junior Secondary school level (JSS) beginning 2023.

Since JSS is a new education level introduced in the current education reforms, the MoE through the Presidential Task Force on education reforms, issued guidelines on the implementation of JSS. Key recommendations include domiciling of JSS in the existing Primary schools; all grade 6 learners transition to JSS in the same school; learners with special needs under the stage-based curricular who successfully complete intermediate level transition to pre-Vocational level in the same institutions and existing boarding Primary Schools transition into JSS (Grade 7) as boarding.

The MOE recognizes the critical importance of the school leaders to spearhead the implementation of the CBC at JSS. This Training Needs Assessment (TNA) report was developed within the Development Cooperation Framework between the MoE and VVOB. Through this Cooperation Framework, the MOE, Kenya Education Management Institute (KEMI) and VVOB are jointly implementing the programme **'Implementing National Curriculum Reforms Through App-Based Learning for School Leaders in Secondary Education' (INCREASE)**. The MOE has appointed a multi-agency technical committee to support and provide oversight in the implementation of the INCREASE programme.

School leaders play a vital role in the effective implementation of the CBC. Therefore, professional development in CBC is essential to create a new learning environment responsive to the needs of the 21st century learner. The TNA report has identified some critical management and instructional capacity gaps. The findings will therefore inform the development of a targeted continuous professional development programme focusing on the ongoing curriculum reforms and instructional leadership. Through learning from this programme, the MOE in collaboration with stakeholders will develop a policy on school leadership capacity development.

Thus, to ensure full implementation of this programme, the MOE will work closely with all relevant stakeholders.



DR. ELIAS ABDI, OGW
DIRECTOR GENERAL

PREFACE

VVOB – education for development strengthens education systems worldwide. Quality education ensures equal opportunities. It is key to achieving the Sustainable Development Goals and a more equitable world for all. In Kenya, VVOB focuses on the professional development of teachers and on effective school leadership.

VVOB works in close collaboration with the Ministry of Education (MoE) and with the institution mandated with school leadership capacity building, the Kenya Education Management Institute (KEMI). Through this partnership, we focus on strengthening the capacity to deliver high quality and effective professional development to school leaders to steer the implementation of the competency-based curriculum (CBC) for junior secondary education.

The INCREASE program contributes to a sustainable and enabling environment for the school leaders so they can feel truly supported, without being overburdened. This is achieved by complementing the existing professional development courses with a focused, short, interactive and app-based training, co-developed by VVOB and KEMI. Key results areas on INCREASE programme includes (1) the development and delivery of an app-based blended content on instructional school leadership and management for school leaders to effectively implement the CBC reform in Junior secondary 2) the development of an evidence-informed strategy for institutionalizing blended modalities of continuous professional development for school leaders.

In this report, school leaders from across the country have been given a voice to identify the areas they need support in to be able to confidently lead the CBC curriculum implementation in the country. The report further discloses the school leaders' preference in a professional training programme and their motivational factors for enrolling and completing a course. The result will be a course that has been designed with the school leaders as the central focus, for effective school-based professional development in implementation of a new curriculum.

VVOB wishes to thank the MoE and KEMI for the continuous support and great collaboration towards a common objective of a cost-effective institutionalized school leaders' professional development.

Claire Mazin
CLAIRE MAZIN

VVOB Kenya Country Program Manager

ACKNOWLEDGEMENT

The Government of Kenya is implementing the Competency-Based Curriculum (CBC) at Junior Secondary School (JSS), which is the transitional level between upper primary and Senior Secondary School (SSS). This level of education is critical since it exposes the learners to a broad-based curriculum that enables them to make informed choices for their career pathways at SSS.

This training needs assessment was undertaken to establish competency gaps that exist in the school leaders of Junior Secondary Education. The TNA findings informed the development of a capacity development program to support school leaders in the implementation of JSS.

The TNA is a product of concerted efforts by stakeholders from the Ministry of Education (MoE) and other Basic education Sub-sector Agencies. KEMI wishes to acknowledge the collaborative effort of these stakeholders who enabled the realization and completion of this training needs assessment. We wish to particularly thank Director General – Department of Early Learning and Basic Education, Elys Abdi for providing leadership and guidance in the implementation of the INCREASE program. We are highly indebted to the Flemish Association for Development Cooperation and Technical Assistance (VVOB) for financial and technical support. The Institute acknowledges the Senior Management of the Ministry of Education (MoE), Teachers Service Commission (TSC), Kenya Institute of Special Education (KISE) and Kenya Institute of Curriculum Development (KICD) for their support towards the completion of this Training Needs Assessment Report.

We wish to thank the members of the Technical Working Group for their technical expertise and commitment. Special recognition goes to the VVOB/KEMI research team that worked tirelessly on development of research tools, collection of data, analysis and report writing. These members included; Wycliffe Wasike (KEMI), Noam Jansens (VVOB) Dr. Sam Ngaruiya (DPP&EACA, MoE), WinnieJoy Gatwiri, VVOB), Purity Kibui (KEMI), Elijah Karimi (KEMI), Symon Ngatia (KEMI), Stephen Barkwang (KEMI), Peris Kiprono (KEMI), Martin Kisilu (KEMI), Rebecca Muriuki (KEMI), Faith Karanja (VVOB), Louisa Kadzo (VVOB), Martin Njeru (VVOB), Judith Muriuki (KICD) and Godfrey Mwaloma (KICD).

It is my sincere hope that the efforts each one of you has devoted to the completion of this TNA will go a long way in sharpening the competencies of School Leaders in Junior Secondary Education, acquire strong instructional leadership skills and organise quality teacher professional development at school-level, thus supporting the effective implementation of the competence-based curriculum and providing learners with the necessary 21st century skills for their educational and professional futures.



DR. MAURICE ODONDO

CEO, Kenya Education Management Institute

EXECUTIVE SUMMARY

This Training Needs Assessment (TNA) report was developed within the framework of the Ministry of Education (MoE) and VVOB Kenya Cooperation Agreement of 2022-2026. Through this cooperation framework, the MOE, Kenya Education Management Institute (KEMI) and VVOB are jointly implementing the programme 'Implementing National Curriculum Reforms Through App-Based Learning for School Leaders in Secondary Education (INCREASE)'. INCREASE is a five-year programme with a focus to provide necessary pedagogical support to foster effective implementation of the competence-based curriculum at junior secondary schools through school-based continuous teacher professional development. The programme will complement the existing government efforts to support effective implementation of competency-based curriculum (CBC) at Junior Secondary School (JSS) level.

The INCREASE programme underscores the vital role school leaders play in creating the conditions for effective implementation of the CBC. Therefore, school leaders at junior secondary school level will require capacity building on the ongoing curriculum reforms and instructional leadership through the provision of relevant targeted continuous capacity development. Hence, the purpose of this training needs assessment was to understand the readiness of school leaders to effectively implement CBC at JSS in order to inform the design of a targeted school leadership training programme.

The overall objective of the training needs assessment was to identify the school leaders' training needs for effective implementation of CBC at Junior Secondary School. The specific objectives were to:

- 1). Assess the readiness of school leaders to lead implementation of CBC at junior secondary education level.
- 2). Analyze the contribution of existing capacity development programs on the instructional leadership skills of school leaders.
- 3). Determine school leaders' modes of learning preferences in professional development training.
- 4). Identify school leaders' motivational factors for enrolling and completing a capacity development programme.

A convergent parallel mixed method research design that combined quantitative and qualitative methods was used. An online school leaders' questionnaire was used to collate quantitative data with respect to school, and school leaders' preparedness, as well as the demographics, preferred mode of learning, ICT skills and motivation to undertake a capacity development course. A school leaders' interview guide was also used to capture qualitative data highlighting the insights of school leaders' perceptions, values and opinions to better understand their capacity development needs.

The targeted population comprised of 64,688 primary and 20,974 secondary schools leaders across the 47 counties. School leaders included heads of institutions and their deputies in primary and secondary schools. Stratified sampling method was adopted. The 47 counties were stratified into four socio-economic strata based on the KBS clusters: urban, peri-urban, rural, Arid and Semi-Arid Lands (ASALs). In total, 10 counties were sampled across the 4 clusters. Stratified proportionate sampling was employed to establish sample size in each of the strata from which 759 (382 primary and 377 secondary) school leaders were randomly sampled using Raosoft sample size calculator.

The key findings include objective number one - the readiness of school leaders to lead curriculum implementation - most of school leaders in both primary and secondary schools, do not have the capacity to mentor and support teachers on all components of CBC curriculum. Specifically, most primary school

leaders lack capacity in Value Based Education and Pertinent and Contemporary Issues, while secondary school leaders indicate inadequate capacity in Pertinent and Contemporary Issues, CBC's core values, and ICT integration in learning. Additionally, the study found that infrastructural support, such as classrooms, laboratories, and offices, is crucial for effective implementation of the curriculum. To address these issues, the TNA recommends providing professional development opportunities focusing on CBC at JSS level.

Under objective number two (2) –school leaders' Instructional leadership skills, the analysis indicated a significant disparity between primary and secondary school leaders in terms of training on CBC implementation. While majority of secondary school leaders have not attended any training on CBC, most primary school leaders have attended multiple training sessions. The discrepancy is attributed to the fact that the roll-out of CBC began at the primary level, and accompanying cascade trainings have been more focused on that level. The school leaders accredited their instructional leadership skills to the KEMI diploma course they had attended. The study recommends a tailor made CPD for school leaders at JSS specifically on CBC implementation to ensure that they have the necessary skills and knowledge to effectively lead CBC implementation in their schools.

With respect to the third (3) objective on school leaders' capacity development modes of learning preferences, the study found that most of the school leaders (98.4% primary and 98.9% secondary) have smart phones or tablets as well as laptops (64.1% primary and 78% secondary). Across both cohorts, majority (60.5% primary and 63.9% secondary) prefer face-to-face delivery due to the challenges experienced in previous training such as timing issues, internet connectivity, and internet-enabled devices. Additionally, school leaders expressed that face-to-face training allows for more meaningful interactions with facilitators, and opportunities to build relationships with peers. However, this modality is expensive. In regard to the ICT preparedness the TNA found that overall, almost over half (46.9% of primary and 51.6% secondary school leaders) had not enrolled and completed an online course. On the contrary, most school leaders owned a smartphone, were able to use it in learning and in accessing information on the internet. Overall, the TNA recommends a blended capacity development course that is flexible, and which combines online and face-to-face instruction.

The TNA's fourth objective was to identify motivational factors for school leaders to enroll and complete a capacity development programme. According to the TNA findings, the majority of school leaders were motivated by several factors. These factors include the desire to improve their competencies and become better leaders, opportunities for peer learning, the compulsory requirement of the course by the MOE, promotion to higher career levels, proximity to venue for face-to-face workshops, and acquisition of certificates. Therefore, it is evident that these factors play a crucial role in motivating school leaders to enroll in, and complete capacity development programmes. The barriers that hinder enrollment in CPD training range from the cost, time taken to complete the course, mode of learning delivery, age, venue and level of competency of the trainers.

To motivate school leaders to enroll in, and complete a capacity development course, there are several strategies recommended by the TNA. One such strategy is offering opportunities for peer learning and networking through the formation of clusters or groups within close proximity, also known as communities of practice. Other approaches suggested included: making the course a requirement by the ministry of education, providing opportunities for career advancement, offering a self-paced online course with readily available resources and ICT training on tools and applications. In-person training can also be held in accessible locations and at convenient times, such as during school holidays or weekends, with staggered course schedules. Providing a merited and recognized certificate through assessment or course assignments is also recommended. To overcome financial barriers, subsidizing the cost of the course or offering scholarships can be considered. If school leaders are from private schools, involving school owners in the course of training can be useful. Finally, considering the scheduling of the course and other duties of the school leaders can ensure their full participation, especially in online learning.

In conclusion, the Training Needs Assessment (TNA) report aimed to understand the readiness of school leaders to effectively implement the Competence-Based Curriculum (CBC) at Junior Secondary School (JSS) level. The TNA findings indicate that most school leaders lack the necessary skills and knowledge to effectively lead CBC implementation in their schools, with infrastructural support also identified as a crucial factor for effective implementation of the curriculum. To address these issues, the report recommends providing professional development opportunities that focus on CBC at JSS level, and a tailor-made Continuous Professional Development (CPD) programme for school leaders specifically on CBC implementation. The report also recommends a time-sensitive and interactive blended training approach for capacity development of school leaders at JSS level.

TABLE OF CONTENTS

FOREWORD	i
PREFACE	ii
ACKNOWLEDGEMENT	iii
EXECUTIVE SUMMARY	iv
LIST OF FIGURES	x
LIST OF TABLES	xi
ABBREVIATIONS AND ACRONYMS	xii
DEFINITION OF KEY TERMS	xiii
CHAPTER 1: INTRODUCTION	2
1.0 Background to the Study	2
1.2 Statement of the Problem	2
1.3 Research Objectives	3
1.4 Research Questions	3
1.5 Scope of the Study	3
CHAPTER 2: LITERATURE REVIEW	5
2.1 Introduction	5
2.2 Policy and legal framework	5
2.3 School Leadership in Kenya	5
2.3.1 School leaders' readiness in leading curriculum reforms	6
2.3.2 School leaders' capacity development for curriculum reforms	7
2.3.3 School leaders' capacity development for curriculum reforms in Kenya	8
2.3.4 Factors that influence school leaders' motivation to undertake capacity development	9
2.4 Existing literature gaps in school leaders' Capacity development	9
CHAPTER 3: RESEARCH METHODOLOGY	11
3.1 Introduction	11
3.2 Research Design	11
3.3 Target Population	11
3.4 Sampling	11
3.4.1 Sampling for the school leaders for the online survey	11
3.4.2 Sampling for the school leaders for the Interviews	12

3.5 Data collection tools	13
3.5.1 School leaders Survey Tool	13
3.5.2 School leaders Interview Guide Tool	13
3.6 Piloting of data collection tools	13
3.7 Reliability Analysis	13
3.8 Validity of the Research Instruments	14
3.8.1 Validity of Online Survey Questionnaire	14
3.8.2 Validity of Interview guide	14
3.9 Training and Data collection	14
3.10 Data Analysis	14
CHAPTER 4: FINDINGS AND DISCUSSIONS	16
4.1 Introduction	16
4.2 Response rate	16
4.2.1 Response rate for the online survey tool	16
4.2.2 Responses from the interview informants	17
4.3 School leaders' demographic characteristics	17
4.3.1 Gender of online survey respondents	17
4.3.2 Age	18
4.3.3 Years of experience as school leader	19
4.3.4 Learners with disabilities	19
4.4 Readiness to lead curriculum implementation on junior secondary education	21
4.4.1 Capacity to mentor and support teachers on CBC components	22
4.4.2 Basic Education Curriculum Framework (BECF)	23
4.4.3 Interpretation of Curriculum Designs	25
4.4.4 The Tenets of CBC	26
4.4.5 CBC Learning Approaches	27
4.4.6 ICT integration in Learning	28
4.4.7 Attention areas for junior secondary education curriculum implementation	28
4.4.8 Ready areas for implementation of junior secondary education curriculum	30
4.4.9 Areas schools are not ready for JSS implementation	31
4.5 Capacity development of school leaders	31
4.6 Modes of learning delivery preferences	33

4.6.1 ICT Preparedness	33
4.7 Motivation and barriers to enroll and complete a capacity development course	34
4.7.1 School Leaders motivation to enroll and complete a capacity development course	34
4.7.2 School leaders' barriers to enroll and complete capacity development course.	36
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	39
5.1 Introduction	39
5.2 Participants' demographic characteristics	39
5.2.1 Key findings	39
5.2.2 Conclusion	39
5.2.3 Implications for junior secondary education school leaders' training programme	39
5.2.4 Recommendations	39
5.3 Readiness to lead curriculum implementation on junior secondary education	40
5.3.1 Key findings	40
5.3.2 Conclusion	40
5.3.3 Implications for junior secondary education school leaders' training programme	40
5.3.4 Recommendations	40
5.4 Capacity development of school leaders	40
5.4.1 Key findings	40
5.4.2 Conclusion	41
5.4.3 Implications for junior secondary education school leaders' training programme	41
5.4.4 Recommendations	41
5.5 Modes of learning preferences	41
5.5.1 Key findings	41
5.5.2 Conclusion	41
5.5.3 Implications for junior secondary education school leaders' training programme	42
5.5.4 Recommendations	42
5.6 Motivation and barriers to enroll and complete a capacity development course	42
5.6.1 Key findings	42
5.6.2 Conclusion	42
5.6.3 Implications for junior secondary education school leaders' training programme	42
5.6.4 Recommendations	42
5.6.5 Recommendations for further research	43
REFERENCES	45

LIST OF FIGURES

Figure 3.1	Convergent mixed-parallel design
Figure 4.1	Gender of online survey respondents
Figure 4.2	School leaders' age
Figure 4.3	School leaders' leadership experience
Figure 4.4	School leaders with learners living with disabilities
Figure 4.5	Categories of Learners' Disabilities
Figure 4.6	Capacity to mentor and support teachers on CBC components
Figure 4.7	Readiness to mentor and support teachers on Competency Based Curriculum Career pathways, Assessment and Framework
Figure 4.8	Readiness to mentor and support teachers on interpretation of curriculum designs
Figure 4.9	Readiness to mentor and support teachers on the Tenets of CBC
Figure 4.10	Readiness to support and mentor teachers in CBC learning approaches
Figure 4.11	Readiness to mentor and support teachers on ICT integration in learning
Figure 4.12	Number of times school leaders had attended training on CBC implementation
Figure 4.13	Trainings attended by school leaders on CBC implementation
Figure 4.14	Modes of learning delivery preferences
Figure 4.15	School leaders ICT preparedness
Figure 4.16	Motivators of school leaders to enroll and complete a course on CBC Implementation
Figure 4.17	School leaders' barriers to enroll and complete a course on CBC Implementation

LIST OF TABLES

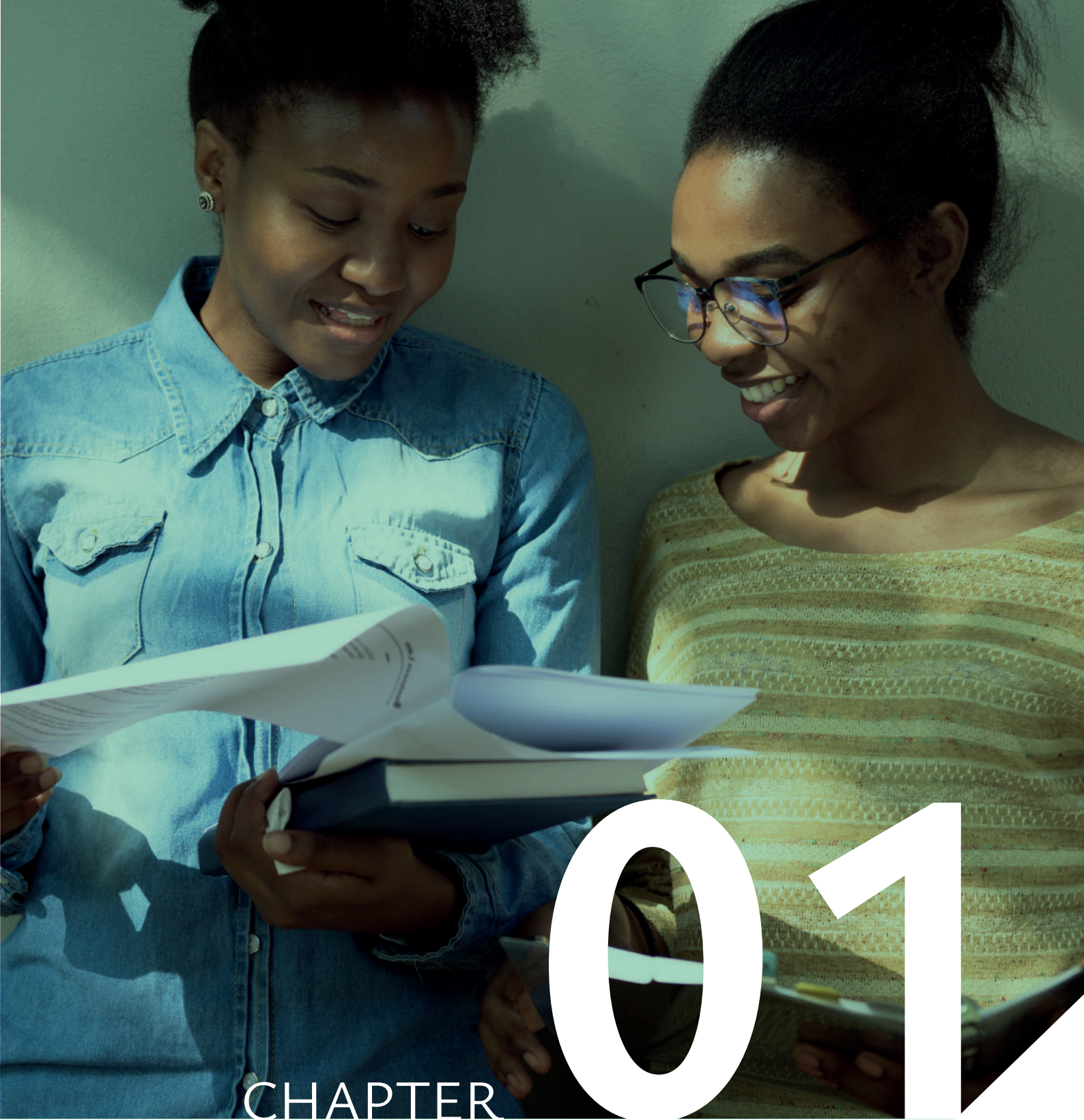
Table 3.1	Sampled counties per stratum
Table 3.2	Sampling Summary
Table 3.3	Reliability analysis of online survey tool
Table 4.1	Online Survey response rate
Table 4.2	Interview informants
Table 4.3	Gender of the interview informants
Table 4.4	Mean, Median, Mode and SD on school leaders' capacity to mentor and support teachers on CBC components
Table 4.5	Other readiness areas for JSSs curriculum implementation
Table 4.6	Ready areas for implementation of Junior Secondary Schools' curriculum

ABBREVIATIONS AND ACRONYMS

AITLS	Australian Institute for Teaching and School Leadership
ASALs	Arid and Semi-arid Lands
BECF	Basic Education Curriculum Framework
BOM	Board of Management
CBA	Competency Based Assessment
CBAF	Competency Based Assessment Framework
CBC	Competency Based Curriculum
CD	Capacity Development
CPD	Continuous Professional Development
ICT	Information Communication and Technology
INCREASE	Implementing National Curriculum Reforms through App-based learning for School Leaders in Secondary Education
JSS	Junior Secondary Schools
KEMI	Kenya Education Management Institute
KePTS	Kenya Teaching Professional Standards
KICD	Kenya Institute of Curriculum Development
KNEC	Kenya National Examination Council
MDI	Management Development Institute
MoE	Ministry of Education
NESSP	National Education Sector Strategic Plan
QDA	Qualitative Data Analysis
SNE	Special Needs Education
SPSS	Statistical Package for social Sciences
TNA	Training Needs Assessment
ToTs	Trainer of Trainers
TPAD	Teacher Performance and Appraisal Development
TPD	Teacher Professional Development
TSC	Teacher Service Commission

DEFINITION OF KEY TERMS

App-based	refers to a type of educational approach where school leaders will use mobile applications (apps) as the primary tool for acquiring knowledge and skills.
School Leader	refers to the head of institution and the deputy heads of institutions.
Learning Institutions	refers to institutions hosting the JSS level of education under the CBC framework.
Instructional Leadership	refers to providing support, guidance and direction towards effective implementation of the competence-based curriculum
Competency	refers a combination of knowledge, skills, attitudes, and abilities needed to perform a specific task by the school leaders.
Capacity development	refers to a structured programme that involves the process of training and developing one's professional knowledge and skills through a participatory approach to promote lifelong learning.
Continuous Professional Development	refers to the ongoing process of learning and improving professional knowledge, skills, and abilities.
Motivation	refers to an internal process that energizes, directs and sustains one's behaviors.



CHAPTER

01

INTRODUCTION

1.0 Background to the Study

In 2016, the government embarked on the most comprehensive education reform since 1981. The reforms involve change from the 8-4-4 to a new system 2-6-6-3 and implementation of a Competency Based Curriculum (CBC). The CBC aims to realize ‘an engaged, empowered and ethical citizen, by nurturing every learner’s potential (Republic of Kenya, 2018a). Effective school leadership is key in ensuring quality education since school leaders develop, support and evaluate the quality of teaching thus influencing the learning outcomes. Thus, school leaders have a vital role in creating the conditions for effective implementation of CBC, by providing the necessary instructional leadership to teachers in their schools. Education Development Trust (2022), posited that, the impact of school leadership on learning outcomes is second only to the quality of teaching and learning.

Preparations for effective implementation of the curriculum should not only focus on re-skilling and re-tooling teachers with necessary competencies but should also focus on enhancing the capacity of the school leader to effectively lead the change process.

The Ministry of Education has conducted training for teachers in CBC. School leaders’ role as instructional leaders play a crucial role in leading the implementation of the curriculum reform in schools. Preparations for effective implementation of the curriculum should not only focus on re-skilling and re-tooling teachers with necessary competencies but should also focus on enhancing the capacity of the school leader to effectively lead the change process. To improve instructional leadership, the Ministry of Education (MoE) and Kenya Education Management Institute (KEMI) in partnership with VVOB Kenya launched a 5-year program that aims at strengthening the capacity of school leaders to effectively implement CBC in Junior Secondary Education. The programme, *Implementing National Curriculum Reforms through App-based learning for School Leaders in Secondary Education (INCREASE)*, aims at preparing school leaders in junior secondary education to acquire strong instructional leadership skills, and organize quality school-based continuous development. In turn, the learners will acquire necessary competences to enable them to become productive citizens.

A Training Needs Assessment (TNA) was necessitated to understand the school leaders’ needs and gaps and inform the design of the programme. The pioneer group of learners who begun learning in the CBC approach are transitioning to junior secondary education in 2023. Junior secondary education (Grades 7, 8 and 9) intends to provide learners with a broad curriculum to prepare them for selection of appropriate pathways and tracks in senior secondary education, aligned to their areas of interest. At senior secondary education (Grades 10, 11, 12), learners will have a choice to join one of three pathways, Arts and Sports; Social Sciences; or STEM, that then defines their career choices (Republic of Kenya, 2018a). With this background, this Training Needs Assessment sampled school leaders from both primary and secondary education with the intention of developing a learning trajectory that can not only support junior secondary education, but also provide a seamless support to the transition to senior secondary education.

1.2 Statement of the Problem

The Kenyan government implemented a comprehensive education reform in 2016, including a change from the 8-4-4 system to a new 2-6-6-3 system and the implementation of a Competency Based Curriculum (CBC) aimed at developing engaged, empowered, and ethical citizens. Effective school leadership is essential to ensure quality education and successful implementation of the CBC, and school leaders have a vital role in providing instructional leadership to teachers to achieve this. The Ministry of Education has conducted teacher training in CBC, but there is a need to enhance the capacity of school leaders to effectively lead

the change process. To address this need, the INCREASE program was launched to prepare school leaders in junior secondary education to acquire strong instructional leadership skills and organize quality school-based continuous development. To inform the design of the program, a Training Needs Assessment (TNA) was conducted to understand school leaders' needs and gaps. The TNA sampled school leaders from both primary and secondary education with the aim of developing a learning trajectory to support junior secondary education and provide seamless support for the transition to senior secondary education.

1.3 Research Objectives

The overall objective of the TNA was to identify training needs of the school leaders for effective implementation of CBC at JSS level. The specific objectives were to:

- 1). Assess the readiness of school leaders to lead implementation of CBC at junior secondary education level.
- 2). Analyze the contribution of existing capacity development programs on the instructional leadership skills of school leaders.
- 3). Determine school leaders' modes of learning preferences in professional development training.
- 4). Identify school leaders' motivational factors for enrolling and completing a capacity development programme.

1.4 Research Questions

This study was guided by the following research questions:

- 1). What competencies do school leaders have in readiness to lead competency-based curriculum implementation in junior secondary education level?
- 2). What is the contribution of capacity development to enhancing school leaders' instructional leadership skills?
- 3). What are the school leaders' preferred modes of learning delivery for a capacity development course?
- 4). What factors motivate school leaders to enroll and complete a capacity development course?

1.5 Scope of the Study

This study focused on assessing the training needs of school leaders in preparation for the implementation of the Competency Based Curriculum (CBC) at junior secondary education level in Kenya. The study specifically focused on identifying school leaders' readiness to lead the implementation, analyzing the contribution of existing capacity development programs, determining school leaders' preferred modes of learning delivery, and identifying the factors that motivate school leaders to enroll and complete capacity development courses. The study sampled school leaders from both primary and secondary education in Kenya. The findings of this study will inform the design of the INCREASE program, which aims to strengthen the capacity of school leaders to effectively implement CBC in junior secondary education in Kenya. The study did not cover other aspects of the education reform or other areas of school leadership outside of CBC implementation.



CHAPTER

02

LITERATURE REVIEW

2.1 Introduction

This chapter outlines the findings from a detailed desk review of relevant policies and national and international literature related to professional development programmes. Reviewed literature focused on school leaders' readiness in leading curriculum reforms, school leaders' capacity development for curriculum reforms and school leaders' motivation to participate in capacity development.

2.2 Policy and legal framework

The Constitution of Kenya 2010 guarantees the right of every learner to access quality basic education (Republic of Kenya, 2010). The Education Sector is mandated to respond to the Constitution through the provision of quality education and training to all Kenyans. To actualize this, there are various policy and legal documents that govern the management of learning institutions, operationalized through key state actors such as the Ministry of Education and the Teachers Service Commission. The Ministry of Education derives its mandate from the Constitution of Kenya 2010 which defines its functions as policy formulation and management of learning institutions, amongst other functions stipulated in the Basic Education Act, 2013 (The Basic Education Act, 2013). The Teachers Service Commission (TSC), on the other hand, derives its mandate from the TSC Act, 2012, to undertake teacher and school leader professional development as well as to establish teaching standards that guide the professionalism of the teaching profession (The Teachers Service Commission Act (No. 20 of 2012), 2015).

 The policies lay out guidelines and standards for the recruitment, training, retention, and promotion of teachers and school leaders. The policies also emphasize the need for ongoing professional development to keep teachers and school leaders up to date with new developments in education and to improve their performance.

Legal and policy documents that guide the capacity building of school leaders include Sustainable Development Goal No. 4, Vision 2030, the Basic Education Act of 2013, Sessional Paper No. 1 of 2019, the National Education Sector Strategic Plan (NESSP) 2018–2022, Policy Framework for Education and Training (2012), Career Progression Guidelines (2017), Teacher Performance and Appraisal Development (TPAD), KEMI legal notice, KICD Act No. 4 (2013), and TSC Teacher Professional Development (TPD) Guidelines. All these policies aim to improve the quality of education in Kenya through the continuous capacity building of teachers and school leaders. The policies lay out guidelines and standards for the recruitment, training, retention, and promotion of teachers and school leaders. The policies also emphasize the need for ongoing professional development to keep teachers and school leaders up to date with new developments in education and to improve their performance. The policies call for the establishment of comprehensive training programs for school leaders with a focus on developing their leadership, management, and pedagogical skills. They also emphasize the importance of mentorship and coaching systems for school leaders.

2.3 School Leadership in Kenya

School leaders are the lead educators and accounting officers in learning institutions and are responsible for their operational management. Their roles entail the development and implementation of education plans, policies, programmes and curriculum activities. In addition, they are also responsible for supervision of curriculum implementation, administration and financial management of the learning institutions (Republic of Kenya, 2018b).

In most African countries, Kenya included, school leaders begin their professional careers as teachers and progress to headship via a range of middle and senior leadership and management roles. This leads to a widespread view that teaching is their main activity, and that a teaching qualification and teaching experience are the only requirements for school leadership (Bush et al., 2022). The TSC developed Teacher Career Progression Guidelines to provide clarity on the recruitment, retention, development, training and promotion of teachers and school leaders to ensure set standards are met. These guidelines not only state the skills and competences necessary for career advancements, but also provide clear description of duties and responsibilities of school leaders that guide what they should do and aspire to do as they seek to progress in their careers.

Bush and Oduro (2006) cited that throughout Africa, there is no formal requirement for school leaders to be trained as school managers. They add that they are often appointed because of a successful record as teachers with the implicit assumption that this provides a sufficient starting point for school leadership. In Kenya, the TSC Strategic Plan 2019 – 2023 acknowledges this gap and identifies the unstructured way induction into leadership and teaching is happening in schools. This has informed the TSC to prioritize the institutionalization of induction and in-service programmes in the teaching service. School leaders have a vital role in creating the conditions for effectively implementing this curriculum reform, by providing the necessary pedagogical support to teachers in their schools. However, these crucial actors often lack instructional skills, or have limited opportunities for professional development (OECD, 2019).

This study aims to identify the training needs of school leaders in learning institutions to enhance their capacity in managing CBC implementation. This section focuses on four areas. Firstly, the readiness of school leaders to lead curriculum reforms. Secondly, school leaders' capacity development for curriculum reforms, from both a global and Kenyan perspective. Thirdly, the factors that influence school leaders' motivation to undertake capacity development. Lastly, the existing literature gaps in school leaders' capacity development will be examined. By exploring these areas, this study seeks to provide insight into how school leaders can be better equipped to manage curriculum reforms in Kenyan schools.

2.3.1 School leaders' readiness in leading curriculum reforms

Greany (2020), states that much of the classic literature on policy implementation and the scale-up of reforms in education sees school leaders as relatively 'empty vessels', who must be incentivized (or simply instructed) to adopt the new way, sometimes with the help of training and resources (Glennan et al., 2004; Hall, 2013). These approaches commonly fail or lead to surface implementation, because school leaders and teachers are not given opportunities to question, shape, understand and own the changes. Marinette et al (2020) states that principals in developing countries with hierarchical cultures tend to spend more time on organization management than on instructional leadership. In Cameroon for example, principals are viewed as general managers of government policies rather than curriculum-instructional leaders. According to Marinette et al., (2020) citing Ruebling, Stow, Kayona, and Clarke (2004), the poor implementation of the curriculum and low student achievement in most schools is due to ineffective leadership. Schools with effective leadership provide a conducive and favorable environment that enables teachers to optimize their effectiveness.

Teacher readiness in curriculum reforms is supported first and foremost by the policy environment that guides the teacher's development and preparation to manage the transition in the learning institutions. A critical gap in Kenya is the absence of an updated Teacher Education and Development Policy for efficient and effective coordination of teacher education and professional development. This was identified as a priority agenda in the NESSP 2018 – 2022 priorities, carried forward as a gap in NESSP 2023-2027 priorities (MOE, 2018). The TSC developed the Kenyan Professional Teaching Standards for instructional leaders (Republic of Kenya, 2018b), providing seven competencies of school leaders in Kenya to guide quality teaching and learning. The aim of developing these standards is to prescribe the capacity development opportunities provided to teachers

and school leaders, provide a benchmark for monitoring and improving the quality of teaching through a TPD programme, and guide partners and TPD providers to provide relevant TPD to teachers and school leaders, creating accreditation pathways for offering TPD aligned to the current education context.

Gallie and Keevy, (2014) emphasize the significance of education standards in promoting quality education. The purpose of having education standards is to provide a framework for countries to establish the fundamental requirements related to knowledge, teaching skills, and personal qualities that teachers and school leaders must possess to achieve the goals of education. As per the Commonwealth Secretariat in 2013, these standards are essential for various purposes. Firstly, they serve as a foundation for developing or revamping programs for pre-service, in-service, and continuing professional development for teachers and school leaders. Secondly, they assist teachers and school leaders in assessing their competencies and devising learning and training plans to enhance their professional qualifications. Thirdly, they establish a basis for monitoring and evaluating teachers' professional growth and learning. Fourthly, they support the planning, deployment, and utilization of teachers and school leaders. Lastly, they serve as the groundwork for proposing policies that promote the development of a competent teaching force.

2.3.2 School leaders' capacity development for curriculum reforms

Leading the process of reform demands interpersonal skills and effective instructional leadership capacity of the school leaders (Australian Institute for Teaching and School Leadership, 2021). According to Brolund, (2016), the goal of instructional leadership is for the school leaders to work closely with teachers in order to increase learner achievement. Designing capacity development that works for school leaders requires considering their unique needs and context and should be an ongoing, job-embedded and involving collaboration with other leaders and experts (Pont et al., 2008). Further, Pont et al. (2008) noted that successful capacity development programs provide intensive, action-based capacity development to school leaders, and also provides school leaders with opportunities to learn from experienced practitioners and researchers, as well as to network with their peers.

In line with Moorosi and Bush (2020), effective capacity development for school leaders focuses on practical, actionable strategies and tools that can be implemented in schools. It provides opportunities for heads of institutions to network and collaborate with their peers. Okoko (2018), posited that school leaders' capacity development program should be designed to match specific needs of the school and community, rather than using a one-size-fits-all approach. Further, Okoko (2018), noted that school leaders' capacity development program should also incorporate ongoing support and follow-up to ensure that heads of schools are able to sustain the changes they make and continue to improve over time. A growing trend in capacity development trends for school leaders is offering online courses. This can be attributed to several factors, including the increasing accessibility and affordability of online education, as well as the flexibility and convenience it offers to students. Online learning was also accelerated by the COVID-19 pandemic and the push by institutions to increase enrollment and revenue, and to reach a more diverse student population.

Online learning has been associated with high attrition rates. Several factors contribute to this issue, including a lack of interaction and sense of isolation among online students which can lead to a lack of motivation. Technical difficulties and a lack of technical support can also be a problem. Additionally, a lack of interaction with peers and instructors, as well as poor communication and feedback from instructors, can further exacerbate the issue. Studies have shown that these factors, such as those discussed by Palloff and Pratt (2003), Picciano (2002), and Rovai and Wighting (2005), can contribute to the high attrition rates seen in online learning. Moreover, a recent study, Novotny and Davis (2020) provides further evidence that a lack of interaction and support, technical difficulties, and poor communication and feedback can contribute to high attrition rates in online learning. The study also highlights the importance of addressing these factors to improve retention and success in online courses.

Blended capacity development which combines online and face-to-face instruction, has been found to be effective in several studies (Beatty, 2019; Hu, 2020; Ramos-González, 2021; Sreekumar and Chandrasekharan, 2019). It provides more flexibility and convenience for school leaders, while still allowing for the opportunity to collaborate with peers and receive support from experts. Studies by National Staff Development Council (NSDC) and Harvard Graduate school of Education found that blended capacity development for school leaders can be beneficial for school leaders who are geographically isolated or have scheduling conflicts. Blended learning is cost effective as well as effective in providing school leaders with access to a wider range of experts and resources, while still allowing for the opportunity to collaborate with peers and receive support from experts (Leithwood et al., 2004).

2.3.3 School leaders' capacity development for curriculum reforms in Kenya

The early attempts to provide a structure for effective capacity development in Kenya was in the early 70s, through the Ndegwa Report, the Commission of Inquiry of Public Service Structure and Remuneration (1970-71) and the Wamalwa Report of the Training Review Committee (1971 – 72). These reports recommended the need for in-service training programs. Focus on school leadership preparation and development was accentuated in Kenya when the government realized that school leaders lacked the requisite skills to carry out their roles (APHRC, 2016; Eshiwani, 1993). The Kenya Education Staff Institute (KEMI) was established in 1981 to offer in-service training to managers of schools and persons responsible for implementing directives from the Ministry of Education. The Ministry of Education has also periodically partnered with donors to implement programmes aimed at strengthening school leadership and management. The recent efforts to improve school leadership in Kenya include initiating new programmes and encouraging development partners to invest in school leadership preparation and development programmes (Herriot et al., 2002; Republic of Kenya, 2005).

TPAD, introduced in 2016, aimed at providing mechanisms for the identification of training needs and professional development gaps for teachers and school leaders. It enables school leaders to engage in ongoing instructional supervision and identify areas of improvement through self and peer appraisal (Republic of Kenya, 2021). NESSP 2018-22 prioritized improving teacher competencies and professional development by institutionalizing a Teacher Professional Development Framework 2020 to establish structured professional development for teachers in Kenya. In response, TSC championed the drafting of KePTS to promote the development of teachers and school leadership through provision of TPD guidelines. The development of a TPD program, based on KePTS, was awarded to accredited institutions, which enables instructional leaders to acquire knowledge on CBC and CBA, among other competencies. The challenge of the TPD cited by KEMI is that school leaders are not offered a separate curriculum to teachers, targeted at addressing role specific requirements required for their leadership mandate.

In-service teacher preparation for the CBC began in 2017 with a collaboration between the state education agencies using a cascade training model. This was organized face to face for primary school teachers across the country, supplemented by an online course in the KICD ELIMIKA platform (Njegere, 2014). Since then, a number of capacity development courses have been offered by the TSC and Ministry of Education aimed at re-tooling practicing teachers, however, training opportunities for school leaders providing them skills to provide instructional leadership with the curriculum reform process remains minimal. In 2018, an initial evaluation by the Kenya Institute for Curriculum Development on the reform in primary education showed a positive impact on resource distribution, learners' attitudes and teaching methods (Republic of Kenya, 2018a). However, teachers face challenges to implement the CBC, as they feel overburdened (Akala, 2021). This shows that more effort is needed to not only avail more training opportunities for school leaders, but to also evaluate the impact of the training approach to establish best models for institutionalization of training and cost-effectiveness of the training models used so far.

2.3.4 Factors that influence school leaders' motivation to undertake capacity development

Zhang et al (2022) conducted a research in China and revealed that capacity development of education actors is often driven by societal needs and is imposed on teachers and school leaders. However, the research also revealed that teachers' motivation to participate in professional learning is a significant factor in explaining the effectiveness of capacity development programmes. According to Zhang et al, factors including prior experience, teaching experience, self-efficacy, work pressure, and leadership, are related to teachers' motivation to participate in professional learning. Further, Alghamdi (2020) points out that there are various factors that motivate teachers to engage in capacity development in Saudi Arabia and they range from availability of incentives and rewards, presence of policies on capacity development (framework), workload and time available to pursue capacity development, nature of support offered by colleagues and the school leaders, relevance of the course to their daily activities, availability of courses as well as inner satisfaction that one derives from undertaking a professional course.

Meke (2017) conducted a study on Teacher Motivation and Implementation of Continuing Professional Development Programmes in Malawi. This study showed that poor allowances that teachers receive during capacity development training and poor conditions of service such as salaries, promotions and accommodation for teachers, have contributed to lack of motivation of teachers to effectively implement at classroom level, what they learn at capacity development training.

In the Kenyan context, teachers and school leaders are motivated to enroll in capacity development courses due to several factors. These factors include career progression with good compensation, recognition, performance appraisal, availability of training opportunities, and the work environment (Orina et al., 2022). This means that teachers enroll for capacity development with the major aim of growing in their careers which equals higher pay. This study therefore aims to confirm the above findings on what motivates school leaders to participate in capacity development.

2.4 Existing literature gaps in school leaders' Capacity development

Several gaps in the literature on school leaders' capacity development have been identified. Firstly, there is no available published impact assessment report of the ongoing CBC multi-agency cascaded training on school leadership, which makes it difficult to determine the level of engagement by school leaders on curriculum implementation preparedness. Secondly, there is no available published training evaluation report on the effectiveness of the TPD course, which could inform a review of readiness or effectiveness of school leaders to lead curriculum implementation. Thirdly, there is no published comprehensive framework and policies to guide the development of capacity development for school leaders. Lastly, there is limited research on the effectiveness of capacity development for school leaders in Kenya when it comes to leading curriculum reforms. These gaps highlight the need for further research and evaluation of the effectiveness of capacity development initiatives for school leaders in Kenya.



CHAPTER

03

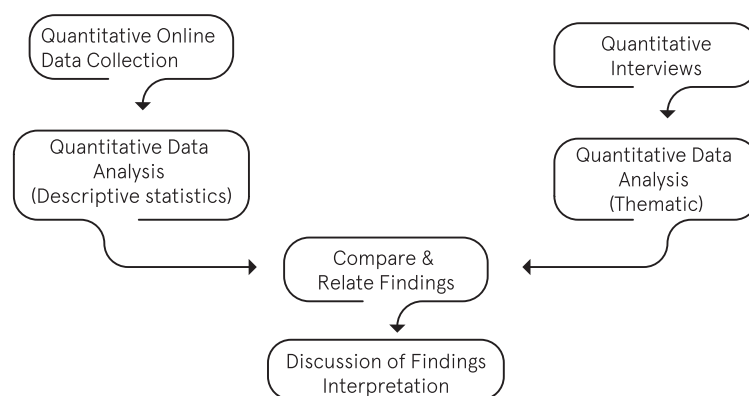
RESEARCH METHODOLOGY

3.1 Introduction

Chapter three presents the methodology detailing the research design, the sampling frame and the sample size, methods of data collection and instruments as well as the data analysis process.

3.2 Research Design

A convergent parallel mixed method research design was employed in the training needs assessment (Creswell, 2014a; Sarfo and Obeng, 2021). This method entailed concurrent collection of both quantitative and qualitative data. It allowed comparison of different perspectives, weighs the methods equally, and analyzes quantitative and qualitative data independently, while interpreting the results together (Creswell, 2014). The research design is summarized in Figure 3.1.



Source: Adapted from (Creswell, 2014)

Figure 3.1: Convergent mixed-parallel design

3.3 Target Population

Kenya has a total of 32,344 primary schools and 10,487 secondary schools in the 47 counties (Basic Education Statistical Booklet-2019). In the beginning, the TNA target population was focused on secondary schools. However, with the domiciling of the JSS in the primary schools, secondary schools were included in the target population. In the context of this TNA school leaders included school heads and their deputies in primary and secondary schools. Therefore, the TNA targeted all the school leaders across the 47 counties totaling 64,688 and 20,974 in primary and secondary schools respectively.

3.4 Sampling

3.4.1 Sampling for the school leaders for the online survey

Stratified sampling was used to categorize the counties into four clusters: urban, peri-urban, rural and ASAL in line within the socio-economic atlas (KNBS, 2016). Within each cluster, random sampling was used to identify the study counties. In total, 10 counties were randomly sampled. Table 3.1 presents sampled counties per each stratum.

Table 3.1: Sampled counties per stratum

Strata	Counties
Urban	Mombasa
Peri-urban	Machakos and Nyandarua
Rural	Uasin Gishu, Homabay and Kakamega
Arid and Semi-Arid Lands (ASALs)	Mandera, Turkana, Narok and Kwale

The sampling unit for the needs assessment was school leaders. Raosoft sample size calculator was used to compute 382 primary and 377 secondary school leaders as the recommended sample size at 5% margin of error to participate in the online survey. Stratified proportionate random sampling was further employed to proportionately identify the school leaders in the sampled counties. Each school was limited to one head and deputy head for primary and secondary schools. Table 3.2 presents a sampling summary.

Table 3.2: Sampling Summary

Sampled Counties	Population of Primary School Leaders	Sample Size Primary School Leaders	Population of Secondary School Leaders	Sample Size Secondary School Leaders
Kakamega	2272	66	886	73
Narok	1426	41	342	28
Turkana	818	24	126	10
Mombasa	794	23	298	25
Nyandarua	1032	30	422	35
Uasin Gishu	1184	34	496	41
Machakos	2078	60	920	77
Kwale	942	27	212	17
Mandera	440	14	162	13
Homabay	2178	63	706	58
Overall Sample Size		382		377
Population in Sampled counties	13164		4570	
Population in Kenya	64688		20974	

3.4.2 Sampling for the school leaders for the Interviews

The sample size of the school leaders who participated in the interviews was informed by Creswell (2014), and Sarfo and Obeng (2021) recommendation of between 8 and 31 subjects and an average sample size of 15 in educational research. Purposive sampling was used to identify 25 school leaders from 5 out of the 10 sample counties for the interviews. One county from each of the sampled clusters was picked for the interviews except for the ASAL cluster where two counties were selected. This sampling criteria ensured national coverage, special needs education, primary and secondary schools as well as socio-economic status for inclusivity.

3.5 Data collection tools

3.5.1 School leaders Survey Tool

The school leaders training needs assessment tool was an online questionnaire. The questionnaire sought to collect data related to school leaders' background information, level of individual and school preparedness to implement CBC, the school leaders' preferred mode of learning and motivation to take a capacity development course.

3.5.2 School leaders Interview Guide Tool

The interview guide was used for one on one interviews with school leaders. It contained probing questions to collect data related to school leaders' professional and academic qualifications, work experience, leadership positions, roles and responsibilities. In addition, the instrument also collected data related to other capacity development training the school leaders had undertaken including CBC training as well as their readiness to implement the competency-based curriculum, experiences as school leaders, motivations, and barriers in undertaking a capacity development course.

3.6 Piloting of data collection tools

The school leaders' online survey tool and the interview guide were piloted in Kiambu and Kajiado counties before the actual data collection. The study selected two pilot counties that were representative of the actual sample in terms of urban, peri-urban, rural, and ASAL presence. The pilot study had a sample size of 12 school leaders from each county, which was considered representative based on Tseng and Sim (2020) recommendation. However, the counties used for the pilot study were not part of the main study. The survey tool link was shared with school leaders via email and WhatsApp, while the enumerators conducted one-on-one interviews. The results from the pilot study were used to improve the tools and to determine their reliability and validity.

3.7 Reliability Analysis

Cronbach's alpha was used to measure the reliability of the tools. It is considered to be a measure of scale reliability and in this study, it was used to measure internal consistency between items in the online survey instrument. Table 3.3 presents reliability analysis of online survey tools administered to the school leaders.

Table 3.3: Reliability analysis of online survey tool

	Primary School Leaders		Secondary School Leaders	
	Cronbach's Alpha	N of items	Cronbach's Alpha	N of items
Readiness for CBC implementation	.964	22	.900	33

Table 3.3 illustrates that Cronbach alpha for items in the online survey tool was .964 for primary and .900 for secondary school leaders respectively, above the threshold of 0.7. According to Haradhan (2017) and Taherdoost (2016), Cronbach alpha values above 0.7 are considered acceptable and satisfactory, 0.8 are considered quite good and 0.9 are considered to show exceptional internal consistency. Consequently, the needs assessment online survey questionnaires had reliable internal consistency.

3.8 Validity of the Research Instruments

3.8.1 Validity of Online Survey Questionnaire

A valid instrument measures what is pertinent to the study being conducted. Content validity of the online survey questionnaire was determined by inspecting the questions in order to establish whether they correspond to what was under investigation and in line with the research objectives. The researchers ensured that the questions were thoughtfully constructed to yield reliable data. Face validity was achieved by constructing simple and clear questions appropriate for the participants and sufficient to generate reliable data. Face and content validity of the research instrument tools was established by seeking judgment and opinions of experts in education.

3.8.2 Validity of Interview guide

A panel of education experts ascertained the face and content validity of the interview guide through reviews. Adjustments were made in response to these experts' feedback to increase validity. To establish content validity, the researchers consulted education experts and looked for a consensus of judgment. Through literature review content validity was further established to ensure that the items in the tool were essential in measuring the needs assessment objectives.

3.9 Training and Data collection

Before data collection the school leaders and interviewers were involved in a training session to understand the data collection tools and the data collection techniques. The data was collected between November 4 to December 23, 2022 from school leaders. The online tool was developed on google form, a link generated and shared with all the respondents through their email addresses and WhatsApp. A short message was shared through mobile phones to alert the school leaders to take part in the survey. The google form enabled data capture in real time as the school leaders responded to the online needs assessment survey tool.

3.10 Data Analysis

The Online survey questionnaire data was downloaded in excel format for sorting, cleaning and coding. It was then analyzed through descriptive statistical techniques run on Statistical Package for social Sciences (SPSS) version 26.0. Qualitative data analysis was conducted for the interview guide question scripts during which themes were generated and discussed. The key findings were informed through triangulation from the two sets of analysis.



FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents the TNA findings in line with the objectives. Objective one focused on the readiness of school leaders to lead implementation of CBC at junior secondary education level; objective two on the contribution of existing capacity development programs on the instructional leadership skills of school leaders at JSS; objective three was to determine school leaders' modes of learning preferences in professional development training and objective four was on identifying school leaders' motivational factors for enrolling and completing a capacity development programme. In addition, the findings present the response rates, and the demographic characteristics include participants' gender, age, school leader and teacher years of experience, and presence of learners living with disabilities in one's institution. Findings are presented in the form of tables and graphs.

4.2 Response rate

4.2.1 Response rate for the online survey tool

The online survey response rate for the online survey tool is indicated in Table 4.1.

Table 4.1: Online Survey response rate

Counties	Primary School Leaders			Secondary School Leaders		
	Responses	Sample	Response Rate (%)	Responses	Sample	Response Rate (%)
Kakamega	72	66	109.1	41	73	56.1
Kwale	24	27	88.9	20	17	114.4
Machakos	37	60	61.7	61	76	80.4
Mombasa	14	23	60.9	13	25	52.9
Narok	25	41	61.0	21	28	74.4
Nyandarua	13	30	43.3	22	35	63.2
Turkana	8	24	33.3	6	10	57.7
Uasin Gishu	39	35	111.4	28	41	68.4
Mandera	11	13	84.6	55	14	392.9
Homabay	14	63	22.2	10	58	17.2
Total	257	382	67.3	277	377	73.5

Table 4.1 shows 257 out of 382 school leaders in primary schools responded to the quantitative survey, giving a response rate of 67.3%. Among the secondary school leaders, 277 out of 377 school leaders responded giving a response rate of 73.5%. In both cases, the response rate was above 60% thus considered appropriate (Fincham, 2008). Even though some counties had response rates below 60% the analysis was mainly based on overall response rate.

4.2.2 Responses from the interview informants

Table 4.2 summarizes the response rate for the interview informants.

Table 4.2 Interview informants

County	Sample	Number of responses	Response rate %
Turkana	5	2	40
Narok	5	5	100
Kakamega	5	5	100
Machakos	5	6	120
Mombasa	5	9	180
Total	25	27	108

Overall, Table 4.2 illustrates an interview response rate of 108% with two counties having over 100%. This was attributed to school leaders' interest in the interview. Turkana county had the least, 40% interview response rate as a result of logistical issues. Overall, the interview response rate met Sarfo and Obeng (2021) recommendation.

4.3 School leaders' demographic characteristics

4.3.1 Gender of online survey respondents

The online survey questionnaire sought to establish the gender composition of the school leaders. Figure 4.1 shows the gender composition for the online respondents.

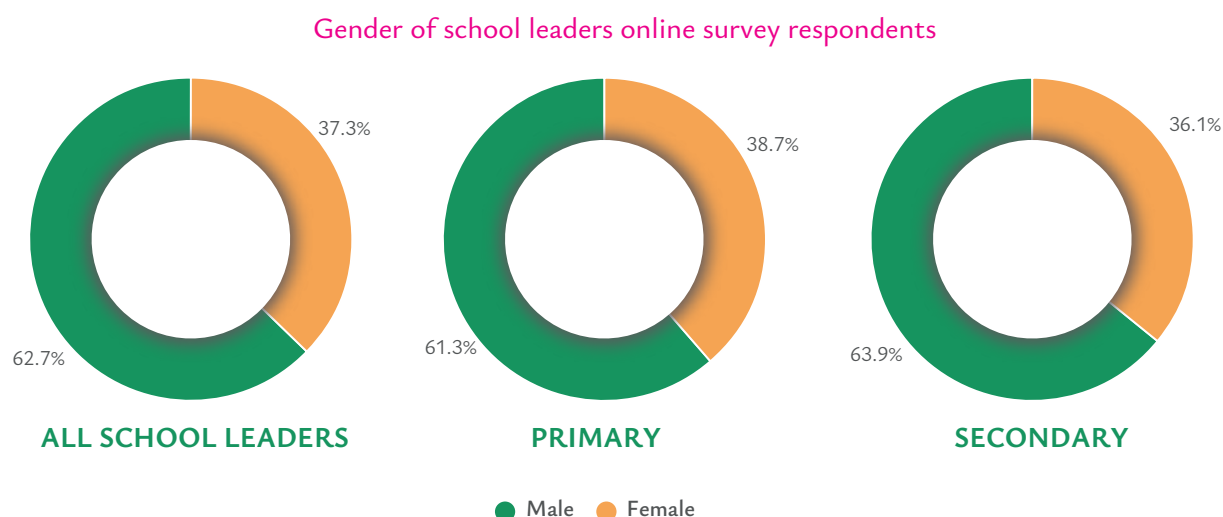


Figure 4.1: Gender of online survey respondents

Figure 4.1 indicates that overall, more male school leaders, 62.7% compared to female 37.3%, responded to the online survey. A similar ratio between male and female school leaders, 63.9% to 36.1% and 61.3% to 38.7% was observed among secondary and primary school leaders respectively. Table 4.3 illustrates gender representation of the interview informants.

Table 4.3: Gender of the interview respondents

County	School leaders					
	Male	Percentage	Female	Percentage	Total	Percentage
Turkana	0	0	2	7	2	7
Narok	2	7	3	11	5	19
Kakamega	2	7	3	11	5	19
Machakos	3	11	3	11	6	22
Mombasa	5	19	4	15	9	33
Total	12	44	15	56	27	100

Table 4.3 depicts that there were more female school leaders, 56%, interview respondents compared to male, 44%. Despite the participation of a higher number of female school leaders in the interviews overall, there are more male, 62.7% compared to female 37.3% school leaders. This finding relates to Tanya (2019) observation that there is no shortage of female educators; however, there is a shortage of female leaders.

4.3.2 Age

The age of the school leaders was obtained by asking them to indicate their ages brackets in years. The age brackets of school leaders were 35 years and below, 36–45 years, 46–55 years, and 56 years and above. The findings are presented in Figure 4.2.

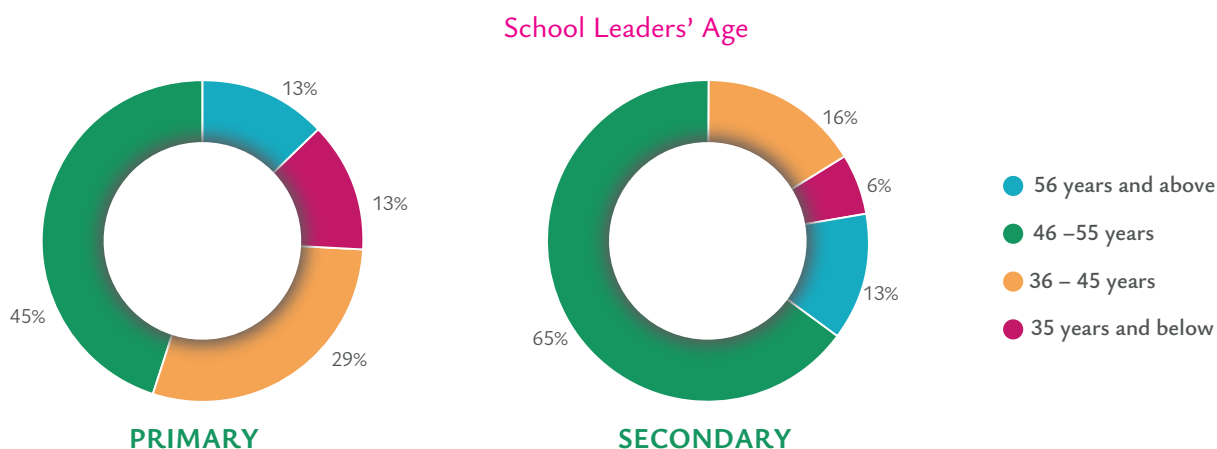


Figure 4.2: School leaders' age

As shown in Figure 4.2, more primary than secondary school leaders indicated their age bracket as below 36 years, at 42% and 22% respectively. Majority of the school leaders in primary schools, 45% and secondary schools 65%, were in the age bracket of 46–55 years. Primary and secondary school leaders in the age bracket of 56 years and above were 13%. These school leaders are close to exiting the teaching profession and consequently their role as school leaders. The Teachers Service Commission Act (No. 20 of 2012) (2015) states that a teacher shall retire compulsorily upon attaining the age of sixty years (60) unless those living with disabilities.

4.3.3 Years of experience as school leader

The study sought to establish the leadership experience of the school leaders. During the interviews, school leaders indicated an average of 8 years leadership experience. These findings were confirmed by the online survey findings on school leaders' leadership experience. Figure 4.3 illustrates school leaders' leadership experience online survey findings.

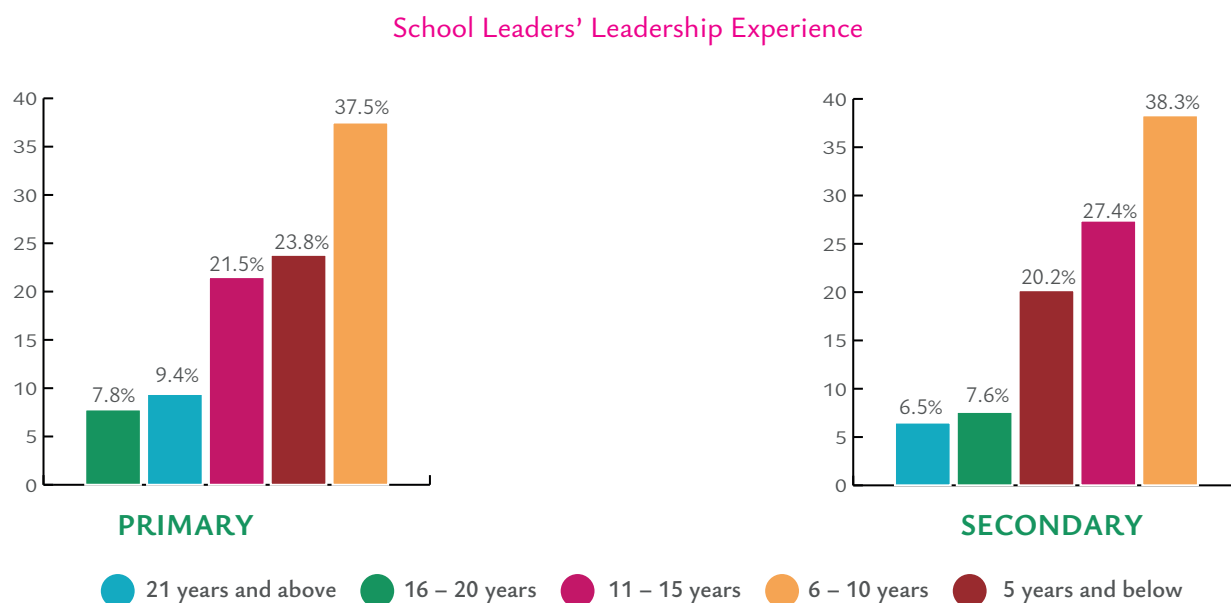


Figure 4.3: School leaders' leadership experience

Figure 4.3 demonstrates that the majority of the school leaders' leadership experience was 6-10 years for both primary 37.5% and secondary 38.3%. Slightly more, 23.8% of primary school leaders than secondary 20.2% indicated leadership experience of 5 years and below. Further, marginally more primary school leaders, 9.4% than secondary school leaders 6.5% indicated the highest leadership experience of 21 years and above. Relevant experience is among the conditions considered by the TSC for teacher promotion (Republic of Kenya, 2018b). School leaders in the interviews revealed an average of 22 years teaching experience. In the interviews, school leaders further mentioned their roles as school leaders which included management of the teachers, learners and stakeholders. In addition, they revealed their role to provide psychosocial support to learners and the need to have this role enhanced for effective implementation of the CBC.

4.3.4 Learners with disabilities

Competency Based Curriculum is geared towards nurturing every learner's potential and ensuring that no learner is left behind. The survey sought to establish school leaders with learners living with disabilities in their schools. The findings are shown in Figure 4.4.

School Leaders with Learners living with Disabilities

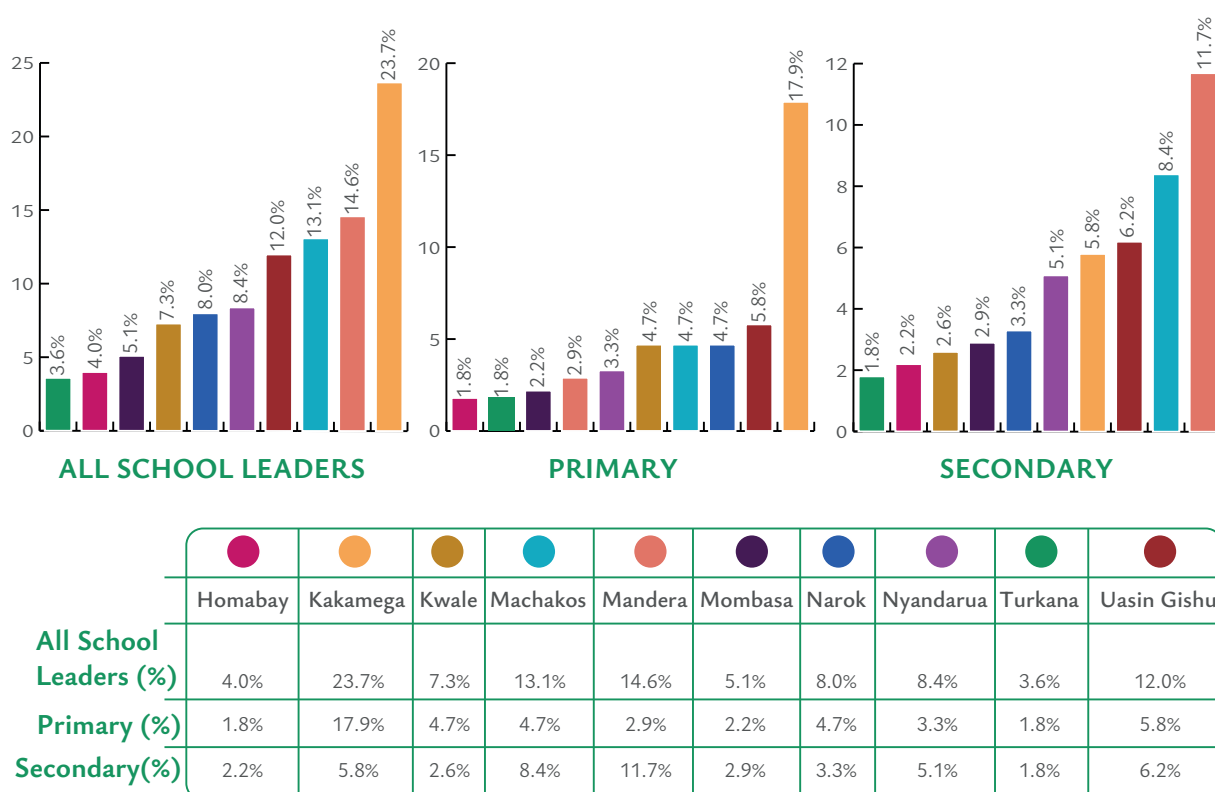


Figure 4.4: Percentage of School leaders handling learners with disabilities by county

Overall, Figure 4.4 shows that school leaders across all sampled counties had learners with disabilities in both primary and secondary schools. Moreover, Kakamega County had the highest percentage, 23.7% of school leaders handling learners with disabilities while Turkana County had the least, 3.6%. The findings in the online survey were confirmed during the interviews. In addition, school leaders mentioned they had inadequate capacity to manage learners living with disabilities as indicated in the following quotes,

In this school we have learners with disabilities. In the CBC training and sensitizations, we were not trained on how to help learners living with special needs to attain the required competencies. There was no special training on school leaders to implement CBC among learners living with disabilities such as blind students. Here we have those learners who are completely blind and those with low vision. We have learners in wheelchairs in this school and although we try to integrate them it would be good to be trained on how to competently integrate them. (INCTNA Transcript_NRK_SL05_Public_Girls)

Principals need to be trained as Instructional leaders in the CBC with clearly defined roles and responsibilities of Principals in effective curriculum implementation; a plan of refresher course after receiving JSS so as to address the challenges faced by the instructional leaders; consider the content and pace of SNE learners and unfair ranking of schools; address barriers faced by SNE learners. (INCTNA Transcript_MSA_SL05_Public_SNE)

To effectively meet the learning needs of learners with disabilities, it is important that school leaders understand how to cater for different categories of learners' disabilities. The category of a learner's disability is an important indicator for the type of training school leaders may be trained on. Figure 4.5 presents the different categories of disabilities across primary and secondary schools in the sampled counties.

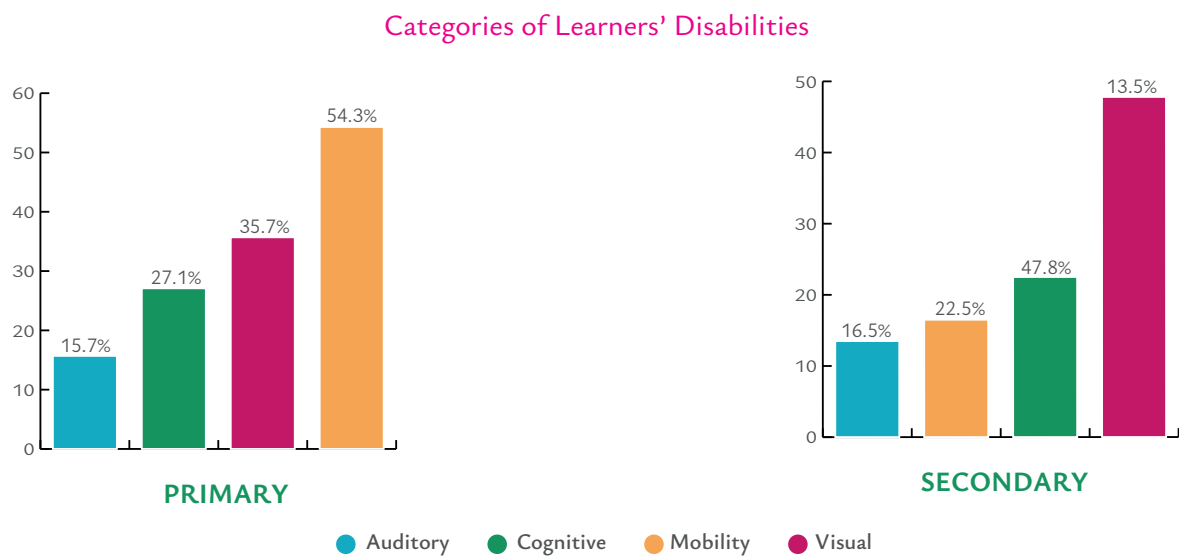


Figure 4.5: Categories of disabilities across primary and secondary schools in sampled counties

Figure 4.5 illustrates that school leaders in both primary and secondary have learners with different categories of learning disabilities in their schools. 47.8% of primary school leaders indicated they had learners living with cognitive disability, and 54.3% secondary school leaders had learners living with mobility disability. Also, 35.7% school leaders noted that their schools had learners with visual disabilities.

The findings suggest that school leaders need to be aware of the adaptation of the curriculum for learners with different categories of disabilities. School leaders also need to be competent on the different career pathways for learners with different categories of disabilities. Generally, the findings indicate the importance of school leaders' competence in managing learners living with disabilities in their schools. They echo the significance of school leaders' understanding of their role on curriculum implementation especially curriculum designs targeted at learners living with disabilities in a manner consistent with the CBC's mission to nurture the potential of every learner. CBC framework outlines two different pathways for SNE; the age-based pathway and the stage-based pathway (Republic of Kenya, 2018a). Moreover, the Basic Education Curriculum Framework (BECF) gives provisions for a differentiated curriculum for learners with special needs who may follow the regular curriculum with adaptations and those who may require a specialized curriculum. Provision of a differentiated curriculum is also stipulated in the sector policy for learners and trainees with disabilities (MoE, 2018).

4.4 Readiness to lead curriculum implementation on junior secondary education

To successfully implement curriculum changes, school leaders must have the instructional leadership skills necessary to lead the change process. In view of the aforementioned, the study sought the views of the school leaders on their readiness to lead curriculum implementation at junior secondary schools. A likert scale was used to measure the school leaders' readiness to mentor and support their teachers on key CBC concepts such as CBC framework, CBA framework, career pathways, interpretation of curriculum designs, core values, core competencies, learner centered approaches, ICT integration, pertinent and contemporary issues, and value-based education.

4.4.1 Capacity to mentor and support teachers on CBC components

Overall, school leaders' capacity to mentor and support teachers on various CBC components was sought. School leaders were asked to indicate their level of agreement on their capacity to mentor and support teachers in their school on CBC components. They were required to indicate their level of agreement on a four-point likert scale from which they selected: 1 = Strongly Disagree, 2 = Disagree, 3 = Agree and 4 = Strongly Agree. The overall mean, median, mode and standard deviation (SD) of the level of school leaders' agreement on their capacity to mentor and support teachers on CBC components in their schools was computed. The findings are presented in Table 4.4.

Table 4.4: Mean, Median, Mode and SD on school leaders' capacity to mentor and support teachers on CBC components

School leaders' capacity to mentor and support teachers on CBC components		
	Primary	Secondary
N	256	277
Mean	1.73	1.92
Median	1.5	1.5
Mode	1	1
Std. Deviation	0.789	0.963

Table 4.4 shows that primary school leaders' mean = 1.73, and secondary school leaders' mean = 1.92 were greater than 1.5, thus could be rounded off to 2. The four-point likert scale from which primary and secondary school leaders selected their level of school leaders' agreement on their capacity to mentor and support teachers on CBC components in their schools: Strongly Disagree was coded as 1, Disagree was coded as 2, Agree was coded as 3 and Strongly Agree was coded as 4. Therefore, the primary school leaders' mean = 1.73, and secondary school leaders' mean = 1.92 indicated that school leaders disagreed on their capacity to mentor and support teachers in their school on CBC components. Primary and secondary school leaders had a similar median = 1.5. This shows that the school leaders disagreed on their capacity to mentor and support teachers in their school on CBC components. Table 4.4 further indicates that the majority of the school leaders in both primary and secondary schools strongly disagreed on their capacity to mentor and support teachers in their school on CBC components since in both cases the mode = 1. The standard deviation was less than 1 for primary school leaders, 0.789 and secondary school leaders, 0.963 indicating that data was clustered around the mean. Figure 4.6 explicitly illustrates school leaders' level of agreement on their capacity to mentor and support teachers in their school on CBC components.

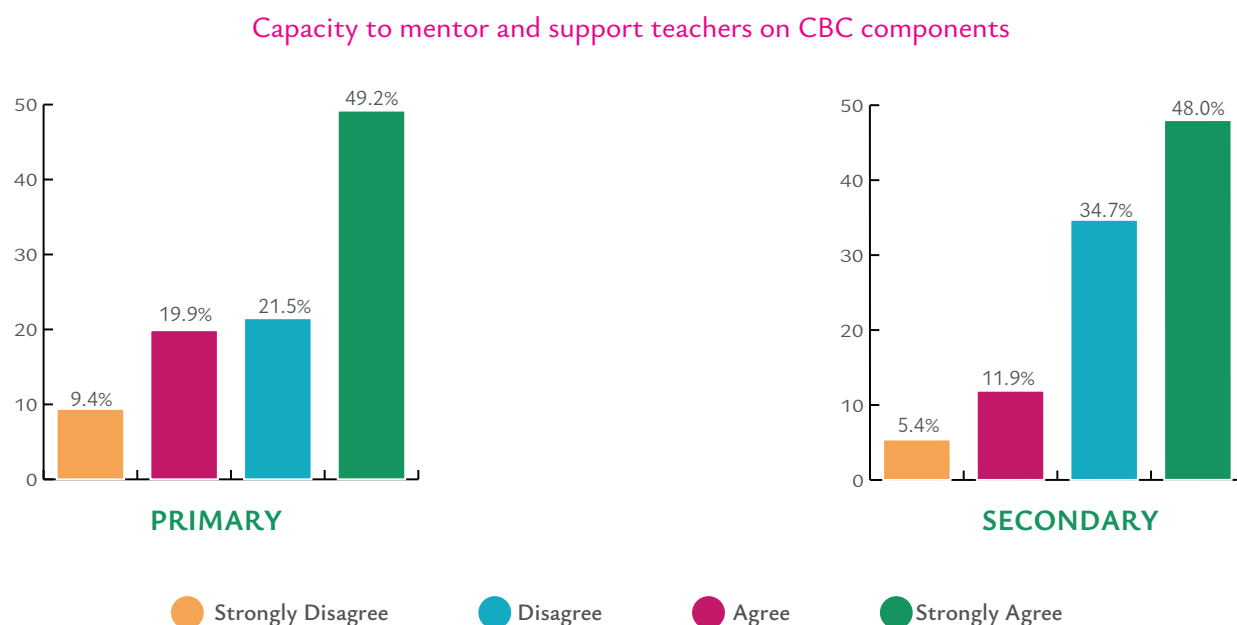


Figure 4.6: Capacity to mentor and support teachers on CBC components

Figure 4.6 indicates that overall, most school leaders in primary and secondary disagreed on their capacity to mentor and support teachers on the CBC components. More primary school leaders, 9.4% strongly agreed and 19.9% agreed that they had the capacity to mentor and support teachers on CBC components, than 5.4% and 11.9% secondary school leaders. More secondary school leaders 34.7% compared to primary school leaders 21.5% disagreed that they had the capacity to mentor and support teachers on CBC components. Nevertheless, slightly more primary school leaders, 49.2% strongly disagreed that they had the capacity to mentor and support teachers on CBC components than secondary school leaders, 48.0%. In order to identify the specific areas of need in CBC, the survey sought information on the school leaders' readiness to mentor and support key components of CBC and the findings are discussed hereafter.

4.4.2 Basic Education Curriculum Framework (BECF)

BECF provides comprehensive conceptualization of reforms in basic education; pre-primary education, primary education, secondary education, and inclusive education. It also guides on various competency-based curriculum aspects that all school leaders are required to understand to effectively support teachers in implementing curriculum reforms in their institutions. School leaders are mandated to support teachers in teaching using appropriate pedagogical practices and providing mentorship. They are expected to be ready to mentor and support teachers on all the competency-based curriculum aspects provided in the BECF.

The online survey sought to find out readiness of school leaders to mentor and support teachers on the competency-based curriculum aspects provided in the BECF such as competency-based curriculum career pathways, competency-based assessment and competency-based curriculum framework. School leaders were asked to indicate their level of agreement on a four-point likert scale from which they selected: 1 = Strongly Disagree, 2 = Disagree, 3 = Agree and 4 = Strongly Agree. Figure 4.7 presents the findings.

Readiness to mentor and support teachers on Competency Based Curriculum Career pathways, Assessment and Framework

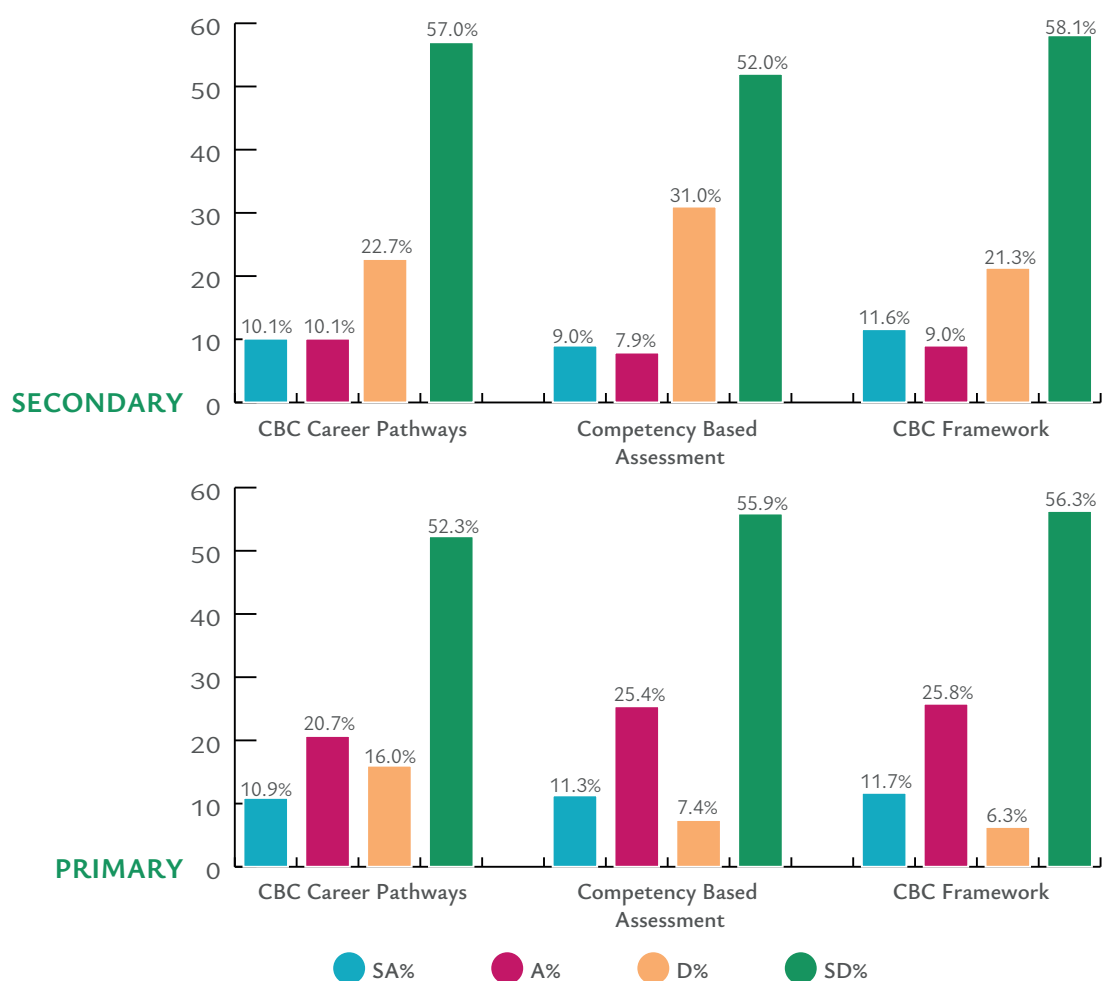


Figure 4.7: Readiness to mentor and support teachers on Competency Based Curriculum Career pathways, Assessment and Framework

Figure 4.7 generally indicates that most school leaders in primary and secondary level strongly disagreed on their readiness to mentor and support teachers on Competency Based Curriculum Career pathways, Assessment and Framework. However, more primary school leaders agreed that they were ready to mentor and support teachers on Competency Based Curriculum Career pathways at 20.7%, Competency Based Assessment stood at 25.4% and Competency Based Curriculum Framework at 25.8% than secondary school leaders who agreed on their readiness to mentor and support teachers in Competency Based Curriculum Career pathways, at 10.1%, Competency Based Assessment, at 7.9% and Competency Based Curriculum Framework, at 9.0%. This finding compares to interview findings. During the interviews, secondary school leaders indicated that primary school leaders were better prepared to handle competency-based curriculum at junior secondary schools than themselves. In addition, school leaders mentioned the need to be trained on the competency-based assessment to guarantee effectiveness of the teachers' assessment of learners. One of the school leaders had this to say,

As a school leader, I need to be trained in Competency-Based Assessment to ensure that the teacher can correctly measure the learner's acquisition of skills. (INCTNA Transcript_KKMG_SLO4_Public_National_SNE).

In addition, one school leader expressed concern over assessment methodologies. Another interviewed school leader expressed concern in their ability to effectively manage learners living with disabilities in school, crediting this to the limited knowledge on the curriculum reform. The school leader had this to say,

We fear that our learners will be confined to certain pathways instead of getting the full selection of pathways like those in regular schools. Also, assessment methodologies – how to do the school based continuous assessment, how to supervise and ensure the assessment is authentic will make us implement competency-based curriculum effectively. (INCTNA Transcript_MAKs_SL05_Public_Day_Mixed_SNE_Extra-County)

4.4.3 Interpretation of Curriculum Designs

The transition to CBC requires a paradigm shift from objective-based curriculum to outcome-based learning, with emphasis on learning experiences, key inquiry questions, core values, core competencies, non-formal learning activities and assessment methods. Curriculum designs outline what is to be taught and school leaders need to be familiar with different curriculum designs and how they should be interpreted for effective learning to take place. School leaders are expected to offer instructional leadership in the preparation of professional documents such as schemes of work and lesson plans. The study sought to find out the readiness of school leaders to mentor and support teachers on the interpretation of curriculum designs. School leaders were asked to indicate their level of agreement on a four-point Likert scale from which they selected: 1 = Strongly Disagree, 2 = Disagree, 3 = Agree and 4 = Strongly Agree. Figure 4.8 shows the findings.

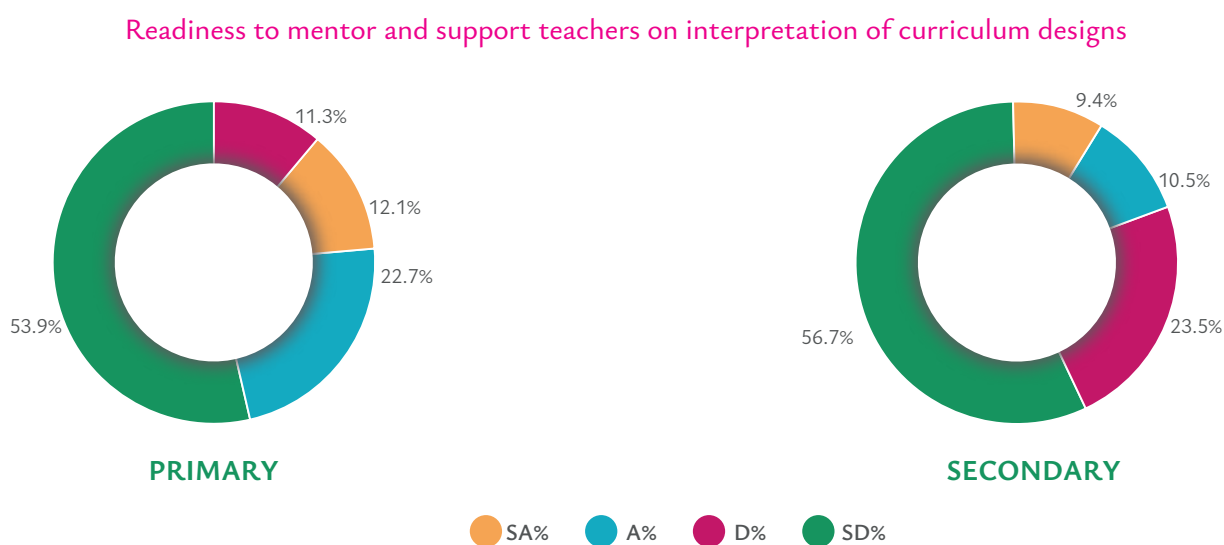


Figure 4.8: Readiness to mentor and support teachers on interpretation of curriculum designs

Figure 4.8 indicates that the majority of the primary, 53.9% and secondary, 56.7% school leaders strongly disagreed that they were ready to mentor and support teachers on interpretation of curriculum designs. However, more primary, 34.8% school leaders compared to secondary, 19.9% agreed that they were ready to mentor and support teachers on interpretation of curriculum designs. In addition, more secondary school leaders, 23.5% compared to primary school leaders disagreed that they had the ability to mentor and support teachers on interpretation of curriculum designs. During the interviews, secondary school leaders mentioned the need for them to be trained on CBC. They further expressed interest as school leaders to gain understanding on the CBC syllabus and learning objective development. One of the school leaders noted the following,

A leader needs to know what is to be done in CBC, they should have their syllabus and know how to work with it every bit of it, they should know how to assess students effectively. They should also be trained on the objectives, how long each objective should take and the details. (INCTNA Transcript_TURK_SL01_Public)

4.4.4 The Tenets of CBC

CBC is designed to emphasize the significance of developing skills and knowledge and also applying those competencies to real-life situations. The curriculum emphasizes the attainment of core competencies and values by learners. Other important aspects of CBC are the pertinent and contemporary issues, community service learning and curriculum support programs which are to be infused in different learning areas. As instructional leaders, school leaders require knowledge of the tenets of CBC. Teachers need to be mentored on how to integrate these tenets in learning. The study sought to establish the level of readiness among school leaders in supporting their staff on the tenets of CBC. Figure 4.9 illustrates the findings.

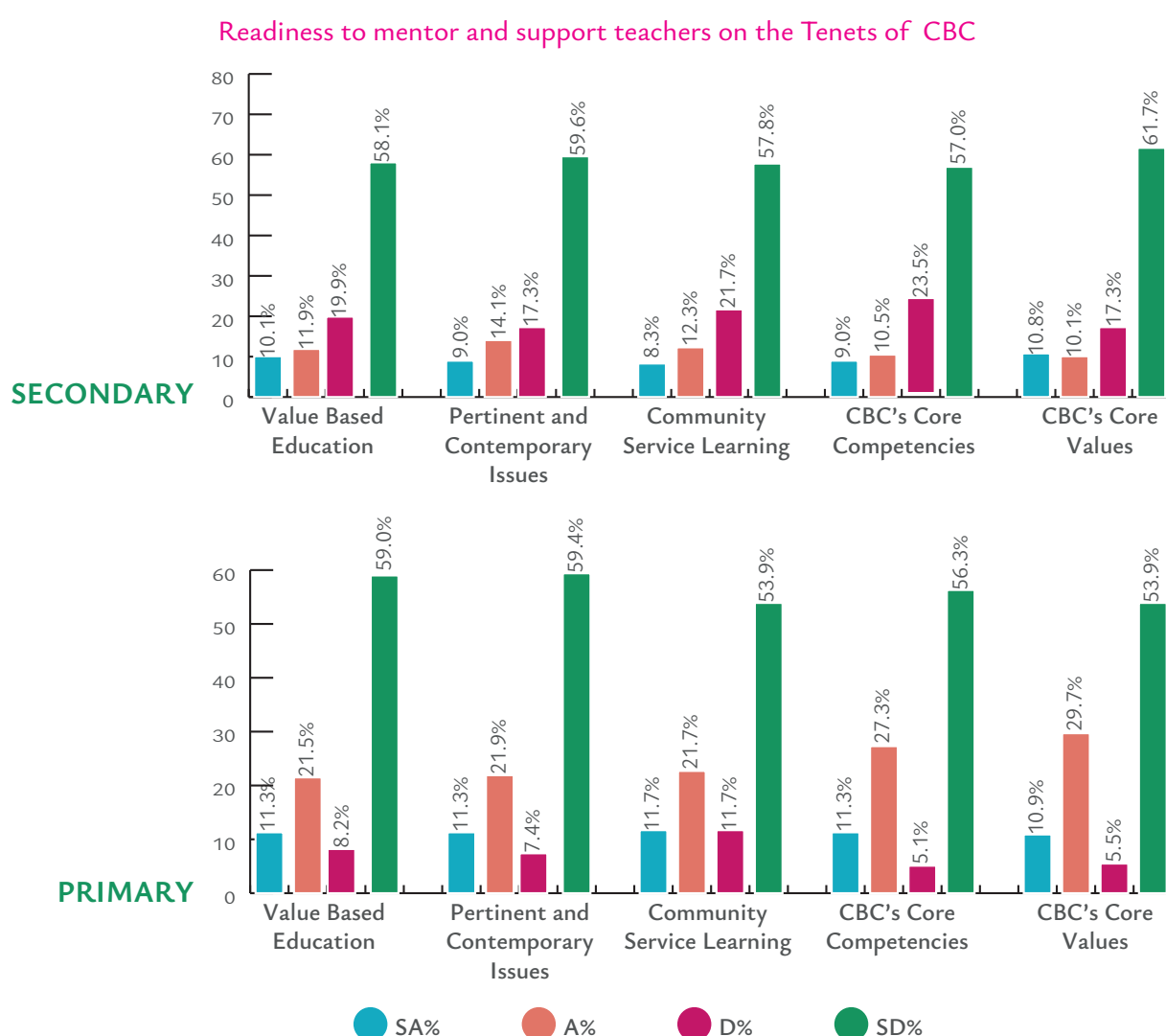


Figure 4.9: Readiness to mentor and support teachers on the Tenets of CBC

Figure 4.9 demonstrates that all school leaders strongly disagreed on their readiness to mentor and support teachers on the tenets of CBC. The majority of the primary school leaders strongly disagreed on their readiness to mentor and support teachers on value-based education at 59%, and pertinent and contemporary issues, at 59.4%. Most school leaders, 61.7%, disagreed on their readiness to mentor and support teachers on

CBC's core values. In addition, 59.6% of the school leaders strongly disagreed on their ability to mentor and support teachers on pertinent and contemporary issues. Few secondary school leaders, 10.5%, agreed on their readiness to mentor and support teachers on CBC's Core Competencies.

Data collected from the interviews compares to the online survey findings on the school leader's readiness to mentor and support teachers on the tenets of CBC. School leaders expressed anxieties on their readiness to mentor and support teachers on core competencies and core values. A school leader in one of the interviews had this to say, "*Understanding what core values are, core competencies as school leaders in special needs, education on the curriculum reform is key.*" (INCTNA Transcript_MAKs_SL05_Public_Day_Mixed_SNE_Extra-County)

4.4.5 CBC Learning Approaches

Competency based curriculum calls for a shift from teacher-centered to learner-centered approaches. This requires a change in the roles of the teachers and the learners in the learning process. Teachers are expected to design learning experiences that allow learners to acquire and practice the competencies. School leaders play a crucial role in their teacher support and mentorship in CBC learning approaches by ensuring that focus shifts from the teacher to the learner. The study sought to establish the readiness of school leaders to provide this role. Figure 4.10 indicates the findings.

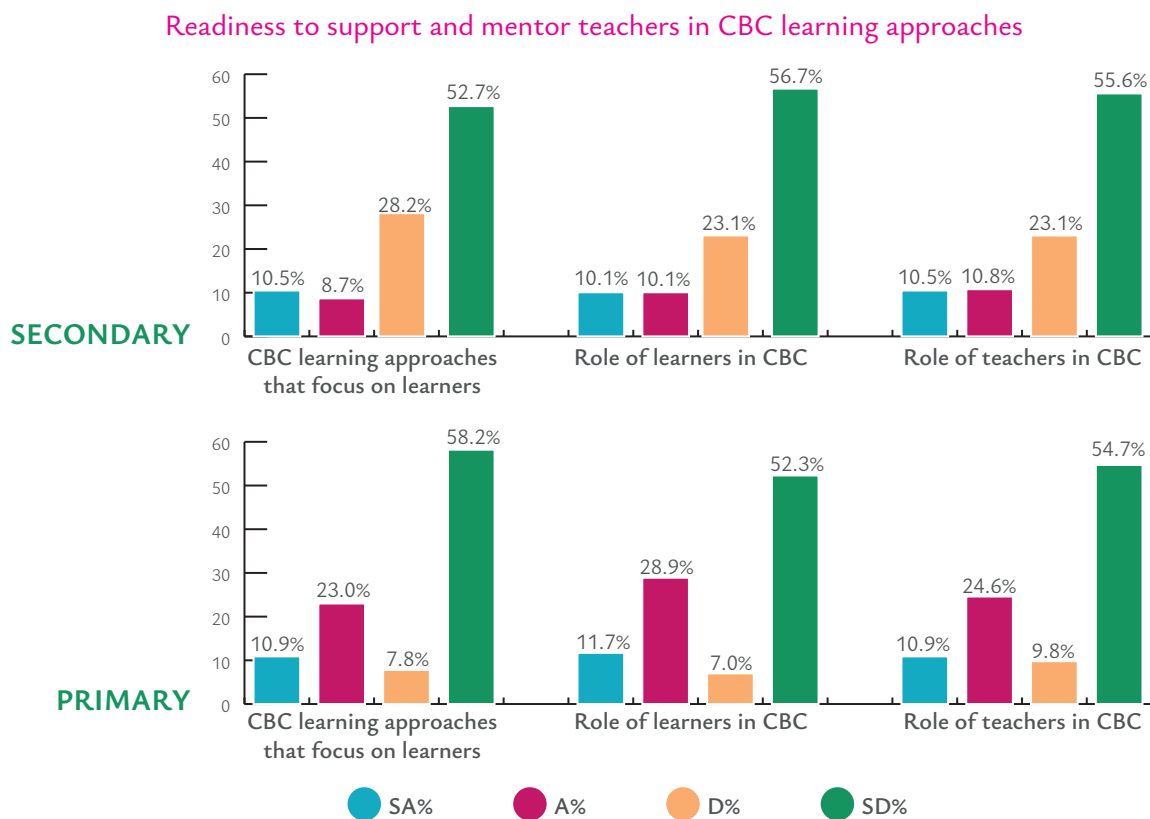


Figure 4.10: Readiness to support and mentor teachers in CBC learning approaches

Figure 4:10 indicates that most school leaders in primary and secondary said they were not ready to mentor and support teachers on CBC learning approaches. More primary school leaders, 58.2% than secondary school leaders, 52.7% indicated that they strongly disagreed on their readiness to mentor and support teachers on CBC learning approaches. While more primary school leaders, 23.0% agreed on their readiness to mentor and support teachers on CBC learning approaches, less secondary school leaders, 8.7% agreed. A secondary school leader during the interviews recommended that principals need to be trained as Instructional leaders in the CBC with clearly defined roles and responsibilities of principals in effective curriculum implementation.

4.4.6 ICT integration in Learning

ICT is viewed as an important tool in CBC for enhancement of learning and for acquisition of digital literacy skills. School leaders are expected to facilitate and encourage the use of ICT across the curriculum. The study sought to establish the readiness of school leaders to mentor and support their teachers on ICT integration in learning. Figure 4.11 illustrates the findings.

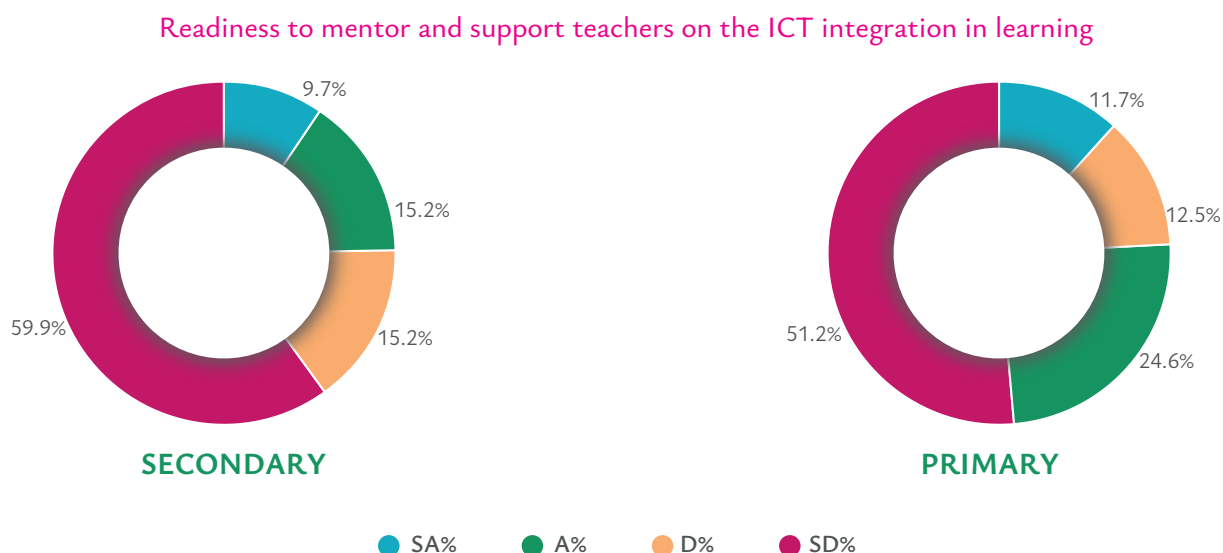


Figure 4.11: Readiness to mentor and support teachers on ICT integration in learning

Figure 4.11 illustrates that more primary school leaders, 36.3% than secondary school leaders, 24.9% agreed that they were ready to mentor and support teachers on the ICT integration in learning. However, the majority of the secondary school leaders, 75.1% disagreed on their readiness to mentor and support teachers on the ICT integration in learning as well as the primary school leaders, 63.7%.

4.4.7 Attention areas for junior secondary education curriculum implementation

In order to gather more information on the school leaders' readiness to implement the CBC, the study sought information from the school leaders on other areas that may require attention to enable them effectively implement CBC at junior secondary. The purpose of this question was to gain more insight on other areas not covered under the Likert scale questions. Overall, 209 responses were received and categorized thematically as indicated in Table 4.5.

Table 4.5: Other readiness areas for junior secondary curriculum implementation

Thematic Area	Responses	Frequency	Percent
Infrastructure	Provision of additional infrastructure like classrooms, laboratories and offices needed.	25	12.0%
	Improvement of infrastructure like desks, chairs, recreation facilities, toilets.	13	6.2%
	Provision of adequate and relevant ICT infrastructure to facilitate learning.	37	17.7%

Community awareness	Community awareness i.e., parent sensitization on their role in CBC implementation.	23	11.0%
Human resource	Availing adequate human resource development in terms of seminars and workshops relevant to CBC implementation.	13	6.2%
	Government to employ more teachers and better pay for motivation	23	11.0%
	Subject mastery by teachers especially in music, art and craft, home science	11	5.3%
Thematic Area	Responses	Frequency	Percent
Teaching and learning support materials	Curriculum designs	15	7.2%
Policy Matters	Clear directions on Junior Secondary School	7	3.3%
Funding /Financing	Funding Capacity building programmes	42	20.1%
Total		209	100%

Infrastructure Support: According to Table 4.5, 35.7% of the school leaders responded that the improvement of infrastructure was their greatest need. They emphasized the importance of adequate infrastructure, including classrooms, laboratories, and offices, for the effective implementation of the curriculum. While the provision of infrastructure may not be the responsibility of the INCREASE programme, integrating capacity development on innovative and improvisation approaches in the school leaders' training program could be beneficial. The provision of sanitation facilities was highlighted as a critical need given the expected increase in enrollments. More than 17% of school leaders pointed to the need for ICT infrastructure.

Community Awareness and Engagement: 11% of school leaders emphasized the need to sensitize parents on the CBC. Community awareness, engagement, and advocacy will be vital for the effective implementation of CBC.

Human Resource Capacity Development: Overall, 22% of school leaders noted the need for capacity development in human resources. Specifically, 11% expressed the need for the hiring of more teachers and better pay for teachers. Additionally, 6% pointed to the need for training teachers for effective teaching and learning. School leaders also highlighted the importance of ensuring that both school leaders and teachers acquire subject mastery, particularly in specific subjects like music and arts.

Teaching and Learning Support Materials: More than 7% of school leaders noted the importance of ensuring adequate curriculum designs. School leaders will be required to guide and provide direction on the scoping and sequencing of the JSS curriculum design as instructional leaders. As such, the availability of these designs is crucial. School leaders need to be conversant with the curriculum designs and other support resources required for effective implementation.

Policy Matters: More than 3% of school leaders pointed to the need for their understanding of policies relating to the implementation of the CBC framework. School leaders' knowledge and ability to disseminate and advocate for various education policies are crucial.

Funding/Financing: 20% of school leaders indicated the need for financing the capacity development of school staff.

Additional Areas of Need: School leaders also noted the need for knowledge and skills in areas such as interpersonal skills, self-awareness competencies, embracing change, valuing diversity in learning institutions, and building strong relationships.

4.4.8 Ready areas for implementation of junior secondary education curriculum

Following the Presidential Working Party on Education Reform recommendation, the government has directed that Junior Secondary education (Grades 7, 8, and 9) be domiciled in existing primary schools. In addition, the Grade 6 KPSEA examination will not be used for Junior Secondary School placement but as an assessment to track learning progress and provide feedback to stakeholders in the education sector on areas that require intervention. To understand the preparedness of the primary schools to implement junior secondary curriculum, the study asked school leaders to identify areas where they felt their schools were prepared to implement the CBC. Table 4.6: summarizes the responses from the school leaders.

Table 4.6: Ready areas for implementation of Junior Secondary Schools' curriculum

Thematic area	Responses	Frequency	Percent
Spaces	Land for expansion for integrated learning areas	17	9%
Curriculum content delivery	Content delivery	11	6%
	Enlightened learners ready to develop their competencies through the help and support from both teachers and parents	19	10%
	Trained teachers	15	8%
	Teacher preparedness	11	6%
	Early education years and middle education years	13	7%
	The presence of curriculum designs for Grades 1 to 6 only	9	5%
	Allocations of the necessary materials and resources required	31	17%
Community engagement	Civic education to parents who offer a strong support to the implementation of the program	23	13%
Infrastructure	School structures: we have a lab and home science room ready	32	18%
Total		181	100

From Table 4.6, only 8.4% of the school leaders indicated that their schools were prepared regarding CBC curriculum content delivery. Only 18% of school leaders indicated that their schools had critical infrastructure including laboratories and science rooms. In regard to parental engagement only 13% of school leaders had provided civic information to the parents. They also pointed out that teachers in primary schools have been trained on CBC and are aware of the curriculum designs for grade 1- 6. In addition, the school leaders indicated that parents in primary schools had experience in implementation of the CBC. Eighteen percent (18%) of the school leaders indicated their schools had already provided for critical infrastructure including laboratories. It is noteworthy that, government has committed to constructing additional classrooms and providing laboratories in primary schools besides devising mechanisms for sharing of resources between neighboring primary and secondary schools. In this regard, primary school leaders will require capacity development in various areas regarding orientation of new teachers and retooling of existing teachers in CBC framework, interpretation of curriculum designs and assessment frameworks. In addition, training will be required for effective use of resources.

4.4.9 Areas that schools are not ready for in JSS implementation

The challenges in implementing the CBC were identified by school leaders, who were asked to pinpoint areas in which their schools were not prepared for JSS implementation. The gaps that were identified included staffing shortages, inadequate teacher capacity, infrastructure and equipment gaps, and a shortage of teaching and learning resources.

Staffing shortages were noted as a major challenge, with most schools being understaffed and requiring at least three additional teachers depending on specific schools due to the existing staff shortage. The analysis indicated that inadequate teacher capacity was also a significant gap, with teachers not yet being oriented on the junior secondary education curriculum designs and requiring capacity development in subject-specific content and pedagogy. Teachers also lacked technological savvy skills and would require training in the use of technology to improve teaching and learning activities. School leaders also pointed out a gap in junior secondary education pedagogical skills, particularly in specific subjects like music, arts, and science, where laboratory testing was also a challenge.

Infrastructure and equipment were also identified as areas of concern, with school leaders citing infrastructural gaps such as a lack of laboratories, shortage of water and sanitation facilities, classrooms, functional home science rooms, and SNE requirements.

Finally, school leaders identified a shortage of teaching and learning resources as another significant challenge. The most common shortage cited included a lack of internet connectivity, a lack of connection to the national power grid line, and a lack of digital content for junior secondary education.

4.5 Capacity development of school leaders

The study sought to establish the contribution of capacity development of school leaders on their instructional leadership skills. School leaders were implored to provide information on the number of times they had attended training on CBC implementation in their capacity as school leaders. Figure 4.12 shows the findings.

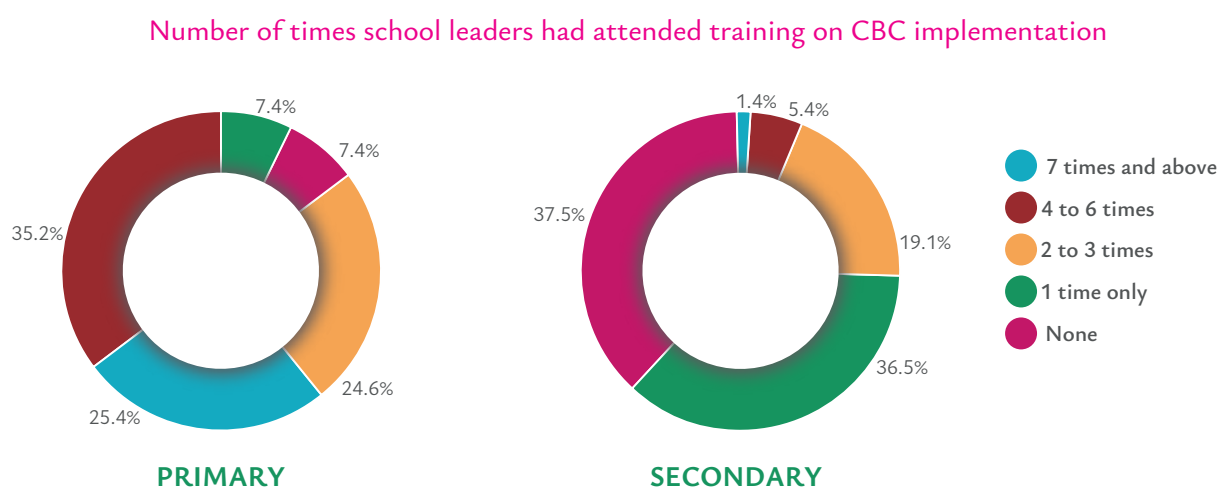


Figure 4.12: Number of times school leaders had attended training on CBC implementation

Figure 4.12 shows that compared to 7.4% primary school leaders; most secondary school leaders, 36.5%, had not attended any training on CBC implementation. On the contrary, 25.4% primary school leaders had attended CBC training 7 times and above while only 1.4% of the secondary school leaders had attended CBC training such number of times. The above mentioned difference between primary and secondary school leaders can be explained by the roll out of CBC which started in lower primary level, and the accompanying

cascade trainings (KICD, 2019). During the interviews, school leaders reported that they had not been trained as school leaders on CBC implementation, but they had benefited from the diploma course training before becoming school leaders. One of the school leaders noted the following,

Although I have never trained as a school leader on CBC implementation, the diploma course I did with KEMI helped me as a first-time principal. It helped me to deal with the teachers and the learners. After college, the roles of a school leader are not clearly defined and without the diploma from KEMI, I would have found it difficult to perform my duties as a school principal, especially my supervisory role of say curriculum implementation by teachers. I do not force teachers to work but I make them to be self-motivated and I can say I got this skill from the diploma course I did with KEMI. I am never a boss; I go beyond being a boss. (INCTNA Transcript_NRK_SL02_Public_Mixed_Sub-County)

School leaders indicated that they had attended the following kinds of training on CBC implementation. Figure 4.13 summarizes different kinds of training indicated by the school leaders.

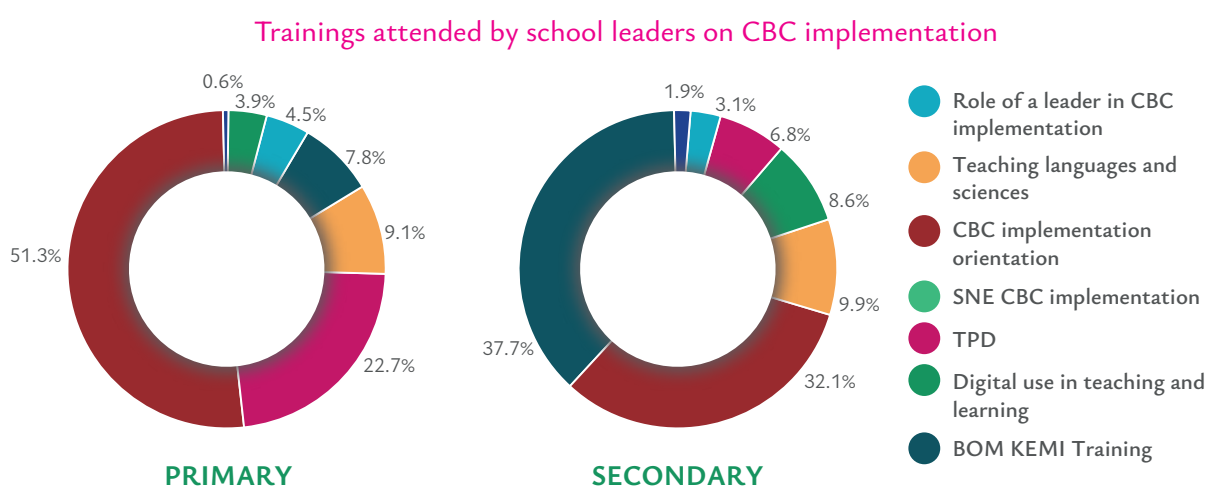


Figure 4.13: Trainings attended by school leaders on CBC implementation

Figure 4.13 shows that more than half of the primary school leaders surveyed, at 51.3% indicated that they had attended CBC implementation orientation while only 32.1% of the secondary school leaders had done the same. Albeit only 0.6% of the primary school leaders had attended SNE CBC implementation training while 1.9% of secondary school leaders had done the same. Most of the school leaders in the interviews mentioned that they attended a 'CBC orientation' or 'TPD'. The majority of secondary school leaders indicated the Boards of Management (BOM) training from KEMI as a training on CBC implementation. Some school leaders also indicated training on digital use in teaching and learning, and teaching languages and sciences.

During interviews with the school leaders, mixed reflections on the contribution of the capacity development to instructional leadership skills were indicated such as setting and communicating school goals. School leaders who indicated acquisition of instructional leadership skills credited a diploma course offered by KEMI. School leaders also noted that the capacity development training or workshops they had attended did not provide required competencies and that they were inadequate as they did not target them as school leaders. A school leader in a special needs education institution noted the need to be provided with psychosocial skills to manage learners living with disabilities. These findings are in line with the literature on policy implementation and the scale-up of reforms in education where school leaders are considered as relatively 'empty vessels', who must be simply instructed to adopt the new way, without being given opportunities to question, shape, understand and own the changes (Glennan et al., 2004; Hall, 2013).

4.6 Modes of learning delivery preferences

School leaders were required to give their opinion on the preferred modes of learning for a capacity development course. They were asked to indicate their first choice of their preferred mode of learning for a course on CBC implementation. Figure 4.14 summarizes the findings.

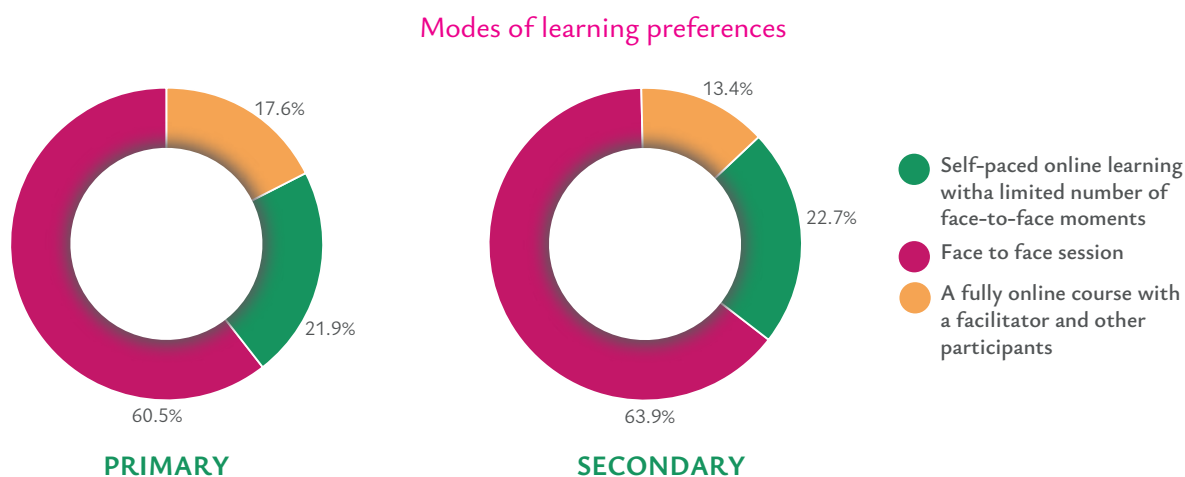


Figure 4.14: Modes of learning delivery preferences

Figure 4.14 shows that 60.5% of primary school leaders preferred face-to-face courses, 21.9% preferred self-paced online courses with a limited number of face-to-face moments, and 17.6% preferred fully online courses with a facilitator and other participants. Comparatively, based on the data from the analysis of the secondary school leaders' preferred mode of learning, Figure 4.14 indicates that 63.9% prefer face-to-face courses, 22.7% prefer self-paced online courses with a limited number of face-to-face moments, and 13.4% prefer fully online courses.

It was therefore evident that the preferred mode of learning for primary school leaders compared well with the choice for secondary school leaders. From the interviews with school leaders, main reasons for the preference for face-to-face trainings given included prior experience with online training which has been less effective due to timing, lack of internet connectivity as well as internet-enabled devices. They also prefer face-to-face training because they can have more meaningful interactions with the facilitators, getting a chance to clarify ideas and build relationships with their peers. Some school leaders who preferred self-paced online courses cited reasons as flexibility in learning and the packaging of a course into short manageable sessions. Reviewed literature in this study revealed that blended capacity development can provide more flexibility and convenience for school leaders, while still allowing for the opportunity to collaborate with peers and receive support from experts. However, where possible, issues raised by the school leaders that contribute to the failure of online learning should be considered and addressed for the success of a blended learning course trajectory. During the interview discussions, school leaders related their experiences on a fully online or face to face mode of learning delivery indicating their limited experience on the blended mode of learning delivery.

4.6.1 ICT Preparedness

The study sought to understand school leaders' level of ICT preparedness. School leaders were asked to verify statements on ICT preparedness. Figure 4.15 presents the findings.

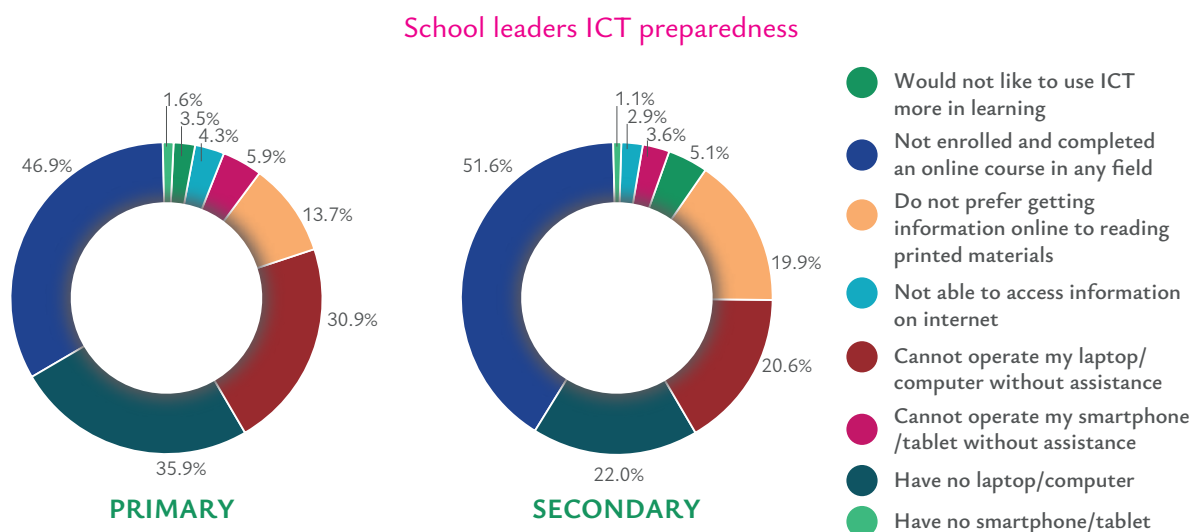


Figure 4.15: School leaders ICT preparedness

Figure 4.15 indicates that 46.9% of primary school leaders had not enrolled and completed an online course in any field. Primary school leaders unable to operate their laptops or computers without assistance were 30.9% and only 5.9% of primary school leaders could not operate their smartphones or tablets without assistance. Also, 35.9% of primary school leaders did not have a laptop or computer, while only 1.6% did not own a smartphone or tablet. A proportion of primary school leaders, 3.5% indicated that they did not like to use ICT more in learning.

Compared to primary, slightly more secondary school leaders, 51.6% had not enrolled and completed an online course in any field, and marginally less, 20.6% and 3.6% respectively who indicated that they were unable to operate their laptops or computers or smartphones or tablets unaided. Figure 4.15 further reveals that 22% of secondary school leaders did not have a laptop or computer, while 1.1% did not own a smartphone or tablet. A proportion of secondary school leaders, 5.1% indicated that they did not like to use ICT in their learning, while 19.9% slightly more than the primary, 13.7% did not prefer getting information online compared to reading printed materials. Only 2.9% secondary school leaders indicated that they had no access to information on the internet, slightly less than the primary school leaders at 4.3%. A further analysis of ICT preparedness of primary and secondary school leaders revealed that majority liked to use ICT in learning, were able to access information on the internet, and preferred to access information online rather than reading printed materials. It also showed that most school leaders owned a smartphone and used it without assistance.

4.7 Motivation and barriers to enroll and complete a capacity development course

This study sought to establish factors that could motivate primary and secondary school leaders to enroll in a capacity development course on leading curriculum implementation, as well as the barriers that could hinder them from pursuing the course.

4.7.1 School Leaders motivation to enroll and complete a capacity development course

The motivation to enroll and complete a capacity development course varies among individuals. In determining school leaders' motivation to enroll and complete a capacity development course for effective CBC implementation, school leaders were asked to select listed factors that would motivate them and indicate any other motivating factors that were not listed. Primary and secondary school leaders' motivations were analyzed in parallel, and findings presented in Figure 4.16.

Motivators of school leaders to enroll and complete a course on CBC Implementation

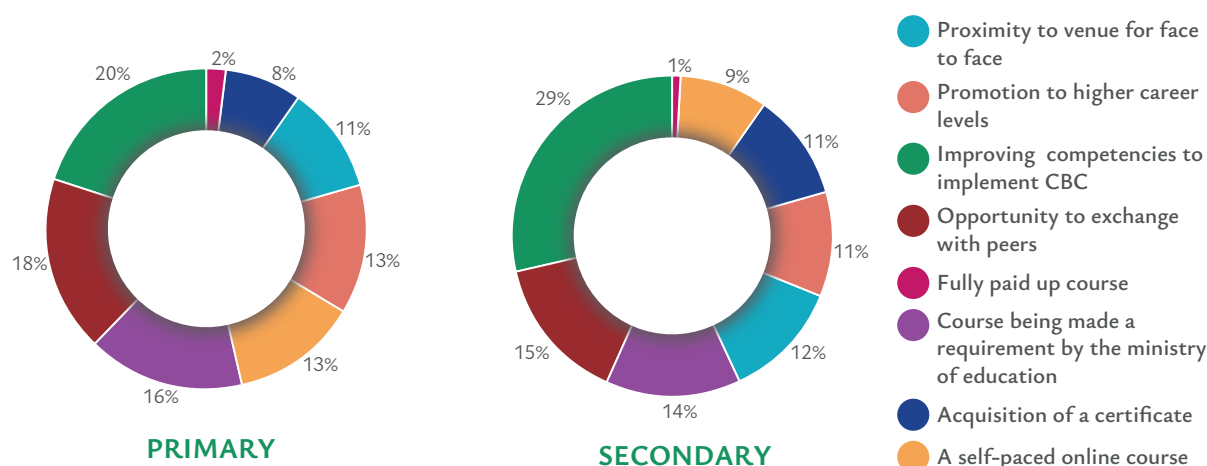


Figure 4.16: Motivators of school leaders to enroll and complete a course on CBC Implementation

Figure 4.16 shows that majority of the surveyed school leaders are motivated to enroll for a capacity development course by the desire to improve their competencies and become better leaders. A fully paid-up course is the least motivator for school leaders to enroll and complete a course on CBC implementation. Few school leaders, primary, 2% and secondary 1% will be motivated by a fully paid-up course. More primary than secondary school leaders are motivated by opportunities for peer learning, courses being made a requirement by the Ministry of Education, promotion to higher career levels and a self-paced online course. A course that is face to face, close to participants' workplaces, provides a certificate and skills, is more attractive to secondary school leaders.

During the interviews, school leaders reiterated the desire to improve their CBC implementation skills and get skills that would enable them to support teachers better. Peer engagement remained a recurrent motivator in the interviews, with the school leaders expressing the need to interact with their peers, share experiences, share solutions to common challenges, and network in a course. They expressed that peer learning needs to be coordinated and works best when participants are organized into clusters/groups, within participants in close proximity (communities of practice). They further preferred to be engaged in the allocation of groups as *'group work can be challenging if not well recruited and with strangers'*. (INCTNA_MAKs_SL01_Public_Girls_Extra-County).

On acquisition of certificates, interviewed school leaders expressed that a certificate should have value attached to it, it should be earned and recognized, for example, through undertaking an assessment or course assignments. *"Not everyone who attends training should get a certificate"* (INCTNA Transcript_MAKs_SL02_Public_Boys_Extra-County)." School leaders with a track record of performing well in their schools expressed the need to protect their reputation as they had a desire to complete a professional development course. There were some school leaders who felt that a course should be made a requirement, though few of interviewed school leaders expressed that a course should not be made a requirement to be motivated to enroll.

Majority of school leaders interviewed saw in-person training as a motivator for enrollment, although a significant number of those interviewed preferred self-paced online learning with resources available for them to read in their free time. Some participants requested ICT training on the tools and applications to be used in a course if the course is to be conducted online. In the same way, the school leaders pointed out that the face-to-face course should be held in places accessible to them so that they do not have to travel long distances to attend a training. Time is also a motivating factor, as school leaders expressed a desire to attend a course at a convenient time outside of their busy schedules, preferably during school holidays. Online session

time should be considered, so as not to interfere with the day-to-day running of the school, for example, evenings, with some preferring weekends. Most school leaders preferred a short course, with interviewed school leaders identifying one month as the most ideal time frame. However, the school leaders suggested that such a course should be staggered over time.

4.7.2 School leaders' barriers to enroll and complete capacity development course

In determining school leaders' barriers to enroll and complete a capacity development course for effective CBC implementation, school leaders were asked to identify factors that could be significant barriers to their motivation to enroll in a course on effective CBC implementation. They were also asked to indicate any significant barrier not listed. Identified barriers were analyzed. Figure 4.17 presents results on the barriers to motivation to enroll and complete a course on CBC implementation.

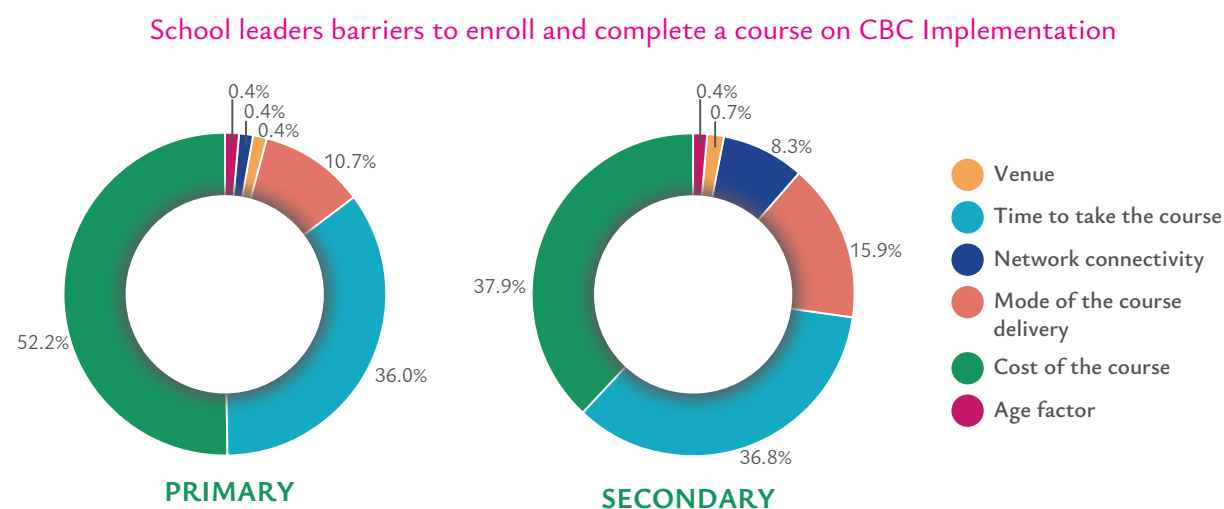


Figure 4.17: School leaders' barriers to enroll and complete a course on CBC Implementation

Figure 4.17 demonstrates that the majority of school leaders, at 52.2% primary and 37.9% in secondary identified cost of the course as a significant barrier to enrolling and completing a course on CBC implementation. Time taken to take the course, mode of delivery, course delivery among others were also identified as significant barriers. Age, venue and level of competency of the trainers are less significant barriers to the school leaders' motivation. A comparative analysis of the barriers to motivation presented between primary and secondary school leaders in Figure 4.17 shows synergies in what the leaders considered as the most significant to least significant barriers to motivate them to enroll and complete a course.

Cost of the course stood out as a significant barrier to the interviewed school leaders who proposed a 50% subsidy to be motivated to enroll. Interviewed school leaders indicated that the time the course is scheduled matters and should consider their other duties that can hinder their full participation, especially in online learning.

I once enrolled for a TPD course, but I ended up dropping the course. I was not able to continue with the course because as a school principal I have a lot of work to do in office and also in classroom. (INCTNA Transcript_NRK_SL02_Public_Mixed_Sub-County).

Respondents interviewed from private schools mentioned the lack of involvement of the school owners in the course as a barrier to their participation. They indicated the need to involve the school directors and the managers who are critical in the management of private institutions.

These findings complement those of reviewed literature from different countries, that highlight the factors that motivate school leaders to attend professional development. Commonalities for educators around the world is that they enroll for capacity development with the major aim of growing in their careers which equals to a higher pay (Meke, 2017). Unique to the African context is the need for government capacity development policies or government directive towards a capacity development course to push educators to enroll, a factor that has stood out in the findings of this TNA study. This factor stood out in Meke (2017) study on Teacher Motivation and Implementation of Continuing Professional Development Programmes in Malawi, and Orina et al. (2022) study on teacher and school leader motivation to attend capacity development course in Kenya.



CHAPTER

05

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The focus of the TNA was to assess the training needs of school leaders at JSS level. The findings of the TNA will inform the development of a training programme to equip school leaders with the requisite knowledge, skills and attitude to effectively lead to the implementation of the competency-based curriculum. This chapter summarizes the key findings, conclusions, implications and recommendations on the continuous professional development of junior secondary education school leaders for the participants' demographic characteristics and objectives.

5.2 Participants' demographic characteristics

5.2.1 Key findings

In an online survey, more male school leaders than female school leaders voluntarily participated. The majority of school leaders fall between the age range of 46–55 years. The age range of 36–45 years has more school leaders at the primary level than in secondary schools. Most school leaders have 6–10 years of experience in leadership. All school leaders have learners living with disabilities in their institutions.

5.2.2 Conclusion

The results of the online survey indicate that male school leaders are more likely to participate voluntarily compared to their female counterparts. Moreover, the majority of school leaders are in the age range of 46–55 years, with the primary level having more school leaders aged 36–45 years than secondary schools. Most school leaders have between 6–10 years of leadership experience. It is noteworthy that all school leaders have learners living with disabilities in their institutions, indicating the need for special attention and support in the education sector.

5.2.3 Implications for junior secondary education school leaders' training programme

Junior secondary education school leaders' training programme should take consideration of school leaders' characteristics and highlight the importance of addressing issues related to gender disparities, age diversity, and special needs education in the field of education.

5.2.4 Recommendations

To improve the performance of Junior Secondary School (JSS) leaders, a specific training program is needed. The training should focus on capacity building for the use and integration of Information and Communication Technology (ICT) in teaching and learning. Additionally, training on management and administration of JSS is necessary to ensure effective leadership. The training program should also build capacity on learner-centered teaching and learning methodologies. To encourage greater participation from female school leaders, the program should be designed to be inclusive and encourage their involvement. When piloting the training program, it is essential to consider the age of the trainees, as this will be critical for effective planning. Finally, the training program should also be tailored to provide school leaders with the necessary skills to ensure inclusivity for learners living with disabilities in their schools.

5.3 Readiness to lead curriculum implementation on junior secondary education

5.3.1 Key findings

Inadequate capacity to mentor and support teachers on all components of CBC curriculum was indicated by most school leaders. Primary school leaders have more capacity than secondary school leaders to mentor and support teachers on all CBC components. Most school leaders lack the capacity to mentor and support teachers on Value Based Education, Pertinent and Contemporary Issues, Pertinent and Contemporary Issues, CBC's core values, and ICT integration in learning. Effective implementation of the curriculum requires infrastructural support such as classrooms, laboratories, and offices.

5.3.2 Conclusion

The study shows that there is a significant gap in the capacity of school leaders to mentor and support teachers on all components of CBC curriculum, with most school leaders indicating inadequate capacity. Primary school leaders were found to have more capacity than secondary school leaders. The study also highlights specific areas where most school leaders lack capacity, including Value Based Education, Pertinent and Contemporary Issues, CBC's core values, and ICT integration in learning. Additionally, infrastructural support such as classrooms, laboratories, and offices is essential for the effective implementation of the CBC curriculum.

5.3.3 Implications for junior secondary education school leaders' training programme

These findings highlight the need for targeted support and training for school leaders to ensure effective implementation of the CBC curriculum. Primary and secondary school leaders' training programmes would need to emphasize specific components of the CBC, such as Pertinent and Contemporary issues, since most school leaders indicated that they lack capacity in this area. Training programmes for primary schools would need to focus on Value-Based Education, while training programmes for secondary schools would need to emphasize CBC's core values and ICT integration in learning.

5.3.4 Recommendations

To ensure effective implementation of the CBC curriculum, a developed training programme should focus on preparing school leaders to lead all the components. The training programme content should enhance school leaders' skills in mentoring and supporting teachers on areas such as Pertinent and Contemporary Issues, Value Based Education, CBC's core values, and ICT integration in learning. Additionally, school leaders require support for the infrastructure to effectively implement CBC. By providing targeted training and infrastructure support, school leaders will be better equipped to lead and support their teachers, resulting in improved implementation of the CBC curriculum.

5.4 Capacity development of school leaders

5.4.1 Key findings

Despite attending CBC implementation training for teachers, school leaders did not accredit their instructional leadership skills from these trainings. More than a quarter of secondary school leaders had not attended any training on CBC implementation, whereas the majority of primary school leaders had attended orientation training on CBC implementation. However, less than 2% of school leaders had been sensitized to SNE in CBC implementation. School leaders attributed their instructional leadership skills to KEMI's diploma in

education leadership and management training, rather than CBC implementation training. Additionally, CBC implementation orientation training was not focused on school leaders. These findings suggest a need for targeted CBC implementation training for school leaders to improve their instructional leadership skills.

5.4.2 Conclusion

The study highlights that attending CBC implementation training for teachers did not contribute to improving school leaders' instructional leadership skills. A significant proportion of school leaders, particularly in secondary schools, have not attended any training on CBC implementation, while others have only attended orientation training. Moreover, a tiny fraction of school leaders have been sensitized to SNE in CBC implementation. The study indicates that school leaders attribute their instructional leadership skills to KEMI's diploma in education leadership and management training, rather than CBC implementation training.

5.4.3 Implications for junior secondary education school leaders' training programme

The lack of focus on school leaders during CBC implementation orientation training indicates a need for targeted training to improve instructional leadership skills. These findings emphasize the need for ongoing professional development for school leaders to ensure the successful implementation of the CBC curriculum.

5.4.4 Recommendations

The study recommends providing more training and support to school leaders for the successful implementation of the CBC. This training should be comprehensive and customized according to the specific roles and responsibilities of school leaders, with a focus on instructional leadership skills. The training should be interactive, allowing school leaders to understand and shape the changes and take ownership of the CBC implementation process. Regular evaluations should be conducted to assess the effectiveness of the training programs, identify areas that require improvement, and make necessary adjustments.

5.5 Modes of learning preferences

5.5.1 Key findings

The study found that school leaders prefer using ICT in learning and accessing information online. They prefer face-to-face delivery mode for capacity development courses to lead CBC implementation, citing better interaction quality with facilitators and peer relationships. Previous experience with a delivery mode influences their preference, with primary school leaders more likely to prefer a fully online course and secondary school leaders preferring a self-paced online course with limited face-to-face moments. Challenges such as live-lesson scheduling, internet connectivity, and access to devices undervalued the preference for a full online learning delivery mode. However, most school leaders have not completed an online course, and primary school leaders need assistance to operate laptops or computers.

5.5.2 Conclusion

In conclusion, the study highlights the preferences of school leaders when it comes to utilizing ICT for learning and capacity development courses to lead CBC implementation. While school leaders favor online access to information, they prefer face-to-face delivery for capacity development courses. Their previous experience with a delivery mode influences their preference, with primary school leaders more likely to favor a fully online course and secondary school leaders preferring a self-paced online course with limited face-to-face moments. Despite the potential benefits of online learning, the challenges associated with live-lesson scheduling, internet connectivity, and access to devices undermine the preference for full online delivery modes.

5.5.3 Implications for junior secondary education school leaders' training programme

The study underscores the need for targeted support to assist primary school leaders in operating laptops or computers and highlights the importance of considering individual preferences and experiences when designing capacity development programs.

5.5.4 Recommendations

School leaders enrolled in a training program should receive computer or laptop induction. Induction on online training should be thorough and cover all interactions between the facilitator and trainee as well as between trainees. The developed training program should have an interactive delivery mode for the trainees and between the trainees and the course facilitator. The program should also address challenges experienced by trainees during fully online courses such as scheduling of live sessions, internet connectivity, and availability of internet-enabled devices.

5.6 Motivation and barriers to enroll and complete a capacity development course

5.6.1 Key findings

The desire to improve competencies and become better leaders motivates most school leaders to enroll in a capacity development course for CBC Implementation. Primary school leaders are also motivated by a self-paced online course, a requirement by the Ministry of Education, and promotion to higher career levels. Secondary school leaders are motivated by face-to-face courses, improving competencies, and acquiring a certificate. Proximity to the course venue and opportunities for peer learning are motivators for both primary and secondary school leaders. Barriers to enrollment and completion of the course include the cost of the course, lack of time, the mode of delivery, and network connectivity.

5.6.2 Conclusion

In conclusion, the study highlights the primary motivators for school leaders to enroll in capacity development courses for CBC Implementation. While the desire to improve competencies and become better leaders is the most significant motivator, primary and secondary school leaders have distinct preferences. Primary school leaders are also motivated by a self-paced online course, a requirement by the Ministry of Education, and promotion to higher career levels. On the other hand, secondary school leaders are motivated by face-to-face courses, improving competencies, and acquiring a certificate. Regardless of their preferences, proximity to the course venue and opportunities for peer learning remain crucial motivators for both primary and secondary school leaders.

5.6.3 Implications for junior secondary education school leaders' training programme

Design of the junior secondary education school leaders' training programme needs to take account of the motivators of school leaders in enrolling and completing a course on CBC Implementation. However, addressing barriers such as cost, lack of time, and network connectivity which affect enrollment and completion of the course, should be a priority for course developers and educational institutions.

5.6.4 Recommendations

The training program for CBC Implementation should focus on improving school leaders' competencies. The mode of delivery should be flexible, allowing for interactions across different levels and opportunities for peer learning. Successful trainees should receive a ministry-approved certificate that offers an opportunity for promotion. The delivery mode should be manageable and affordable for all school leaders.

5.6.5 Recommendations for further research

Further research could explore the cost factor as the main barrier to taking up a capacity development course, including identifying what is considered high or low cost to school leaders, and whether any cost associated with the course is a demotivator. Such research would provide additional insight into the reasons why school leaders may be hesitant to enroll in capacity development courses and how to make these courses more accessible to all.



REFERENCES

REFERENCES

- Akala, B. (2021). Revisiting education reform in Kenya: A case of Competency Based Curriculum (CBC). *Social Sciences & Humanities Open*, 3, 100–107. <https://doi.org/10.1016/j.ssaho.2021.100107>
- Alghamdi, Y. (2020). What Influences High School Teachers' Motivation to Engage in Continuing Professional Development (CPD). *The European Conference on Education 2020: Official Conference Proceedings*. <https://doi.org/10.22492/issn.2188-1162.2020.40>
- APHRC. (2016). *Strengthening School Leadership in Kenya: An Impact Evaluation Report* (pp. 4–19).
- Australian Institute for Teaching and School Leadership. (2021). *Leadership for Learning: A Review of School Leadership Literature*. AITSL, Melbourne. https://www.aitsl.edu.au/docs/default-source/default-document-library/leadership-for-learning_a-review-of-school-leadership-literature.pdf?sfvrsn=1f4add3c_0
- Beatty, A. (2019). Blended learning in higher education: A review of the literature. *Journal of Educational Technology Development and Exchange*.
- Bibi, F. (2011). *Perceptions of women head teachers experiences of attending professional development programs* (Unpublished master's dissertation). Aga Khan University, Karachi, Pakistan.
- Brolund, L. (2016). Student Success through Instructional Leadership. *ERIC*, 8(2), 42–45.
- Bush, T., Maringe, F., & Glover, D. (2022). *School Leadership in Africa: A review of Empirical Research*. Vvob.
- Bush, T., & Oduro, G. (2006). New Principals in Africa: Preparation, Induction and Practice. *Journal of Educational Administration*, 44, 359–375.
- Chepkemei, S., Bomett, E., & Chumba, S. (2022). Institutional Preparedness in Implementation of Competency Based Curriculum in Primary Schools in Kenya in the Midst of COVID-19 Pandemic. *Africa Journal of Technical and Vocational Education and Training*, 7(1), 123–136.
- Creswell, J. (2014a). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th ed.). SAGE Publications Ltd.
- Creswell, J. (2014b). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. SAGE.
- Education Development Trust. (2022). *Successful school leadership*. Education Development Trust. <https://www.educationdevelopmenttrust.com/EducationDevelopmentTrust/files/a3/a359e571-7033-41c7-8fe7-9ba60730082e.pdf>
- Eshiwani, G. (1993). *Education in Kenya since Independence*. East African Educational Publishers, Nairobi.
- Fincham, J. (2008). Response Rates and Responsiveness for Surveys, Standards, and the Journal. *American Journal*, 72(2), 43. <https://doi.org/10.5688/aj720243>

Gallie, M., & Keevy, J. (2014). Standards Framework for Teachers and School Leaders. Commonwealth Secretariat.

Glennan, T. K., Bodilly, S. J., Galegher, J. R., & Kerr, K. A. (2004). Expanding the reach of education reforms: Perspectives from leaders in the scale-up of educational interventions. Santa Monica: RAND Corporation.

Greany, T. (2020). Education Reform: From the System to the School. UNESCO, 1–13.

Hall, G. E. (2013). Evaluating change processes: Assessing extent of implementation (constructs, methods and implications). *Journal of Educational Administration*, 51(3), 264–289.

Haradhan, M. (2017). Two Criteria for Good Measurements in Research: Validity and Reliability. MPRA Paper 83458, University Library of Munich, Germany. RePEc:pra:mpapa:83458

Herriot, A., Crossley, M., Juma, M., Waudu, J., Mwiroti, M., & Kamau, A. (2002). The Development and Operation of Head Teacher Support Groups in Kenya. A Mechanism to Create Pockets of Excellence, Improve the Provision of Quality Education and Target Positive Changes in the Community. *International Journal of Educational Development*, 22, 509–526.

Hu, Y. (2020). Blended learning and student performance: Evidence from a randomized controlled trial in rural China. *Journal of Development Economics*.

KICD. (2019). Curriculum Reforms in Kenya. Frequently Asked Questions on CBC Series. Government Press. <https://kicd.ac.ke/wp-content/uploads/2019/07/SERIES-8-FAQs.pdf>

KNBS. (2016). Socio-Economic Atlas of Kenya: Depicting the National Population Census by County and Sub-Location. Government Press. <https://www.kenya-atlas.org/getacopy.html>

Leithwood, K., Jantzi, D., Earl, L., Watson, N., & Fullan, M. (2004). Strategic leadership on a large scale: The case of England's National Literacy and Numeracy Strategies. *Journal of School Management and Leadership*, 24(1), 57–79.

Marinette, Bahtilla, Hui, & Xu. (2020). Instructional Leadership and Curriculum Implementation. *International Journal of Education and Research*, 8(4).

Meke, E. S. (2017). Teacher Motivation and Implementation of Continuing Professional Development Programmes in Malawi. *Taylor&Francis Online*, 15(1), 107–115. <https://doi.org/10.1080/09720073.2013.11891297>

MoE. (2018). Sector Policy for Learners and Trainees with Disabilities 2018. Government Press. <https://repository.kippra.or.ke/handle/123456789/555>

MOE. (2018). National Education Sector Strategic Plan (NESSP) 2018–2022. Government Press.

Moorosi, P., & Bush, T. (2020). Preparation and Development of School Leaders in Africa. Bloomsbury Academic.

Njegere, D. (2014). The role of curriculum in fostering national cohesion and integration: Opportunities and challenges. IBE Working Papers on Curriculum Issues No. 11. Geneva: UNESCO-IBE, 11.

Novotny, M. W., & Davis, S. C. (2020). Retention in Online Courses: Exploring Issues and Solutions—A Literature Review. *Journal of Online Learning and Teaching*.

OECD. (2019). OECD Skills Strategy 2019: Skills to Shape a Better Future. OECD. <https://www.oecd.org/skills/oecd-skills-strategy-2019-9789264313835-en.htm>

Okoko, J. (2018). Framing the Context of School Leadership Preparation and Development in Kenya. *Educational Management Administration & Leadership*, XX(X), 1–18. <https://doi.org/10.1177/1741143218792913>

Onguko, B., Mohammed, A., & Webber, C. (2008). Mapping principal preparation in Kenya and Tanzania. *Journal of Educational Administration*, 46(6), 715–726. <https://doi.org/10.1108/09578230810908307>

Orina, J. O., Kiumi, J. K., & Githae, P. K. (2022). Determinants of teachers' motivation and professional development in public secondary schools in Kenya. *Academic Journals*, 14(1), 46–52. <https://doi.org/10.5897/IJEAPS2021.0702>

Palloff, R., & Pratt, K. (2003). *The Virtual Student. A Profile and Guide to Working with Online Learners*. The Jossey-Bass Higher and Adult Education Series. Research Gate. https://www.researchgate.net/publication/234767100_The_Virtual_Student_A_Profile_and_Guide_to_Working_with_Online_Learners_The_Jossey-Bass_Higher_and_Adult_Education_Series

Picciano, A. (2002). Beyond Student Perceptions: Issues of Interaction, Presence, and Performance in an Online Course. *Journal of Asynchronous Learning Network*, 6(1), 21–33. <https://doi.org/10.1016/j.iheduc.2005.03.001>

Pont, B., Nusche, D., & Moorman, H. (2008). *Improving School Leadership*. OECD, 1(Policy and Practice).

Ramos-González, M. A. (2021). The impact of blended learning on student performance in a post-secondary financial accounting course. *International Journal of Educational Technology in Higher Education*.

Republic of Kenya. (2005). *Kenya Education Sector Support Programme 2005—2010: Delivering quality education and training to all Kenyans*. Government Press.

Republic of Kenya. (2010). *Constitution of Kenya (2010)*. The National Council for Law reporting with the Authority of the Attorney General.

THE BASIC EDUCATION ACT, 2013, Pub. L. No. 14, 215 93 (2013).

The Teachers Service Commission ACT (No. 20 of 2012), Pub. L. No. Kenya Gazette Supplement No. 167, 161 133 1145 (2015). [efaidnbmnnnibpcajpcglclefindmkaj/http://kenyalaw.org/kl/fileadmin/pdfdownloads/LegalNotices/196-Teachers_Service_Commission_Regulations__2015.pdf](http://kenyalaw.org/kl/fileadmin/pdfdownloads/LegalNotices/196-Teachers_Service_Commission_Regulations__2015.pdf)

Republic of Kenya. (2018a). *Basic Education Curriculum Framework*. Kenya Institute of Curriculum Development (KICD). [chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://kicd.ac.ke/wp-content/uploads/2017/10/CURRICULUMFRAMEWORK.pdf](https://kicd.ac.ke/wp-content/uploads/2017/10/CURRICULUMFRAMEWORK.pdf)

Republic of Kenya. (2018b). *Career Progression Guidelines for Teachers*. Teacher Service Commission (TSC).

Republic of Kenya. (2021). *Teacher Service Commission Final Evaluation Report (MOE/GPE/CQS/01/2020/2021)*.

Rovai, A., & Wighting, M. (2005). Feelings of alienation and community among higher education students in a virtual classroom. *Internet High. Educ.*, 8, 97–110. <https://doi.org/10.1016/J.IHEDUC.2005.03.001>

Sarfo, J., & Obeng, P. (2021). Qualitative Research Designs, Sample Size and Saturation: Is Enough Always Enough? *Journal of Advocacy, Research and Education*, 8(3), 60–65. <https://doi.org/10.13187/jare.2021.3.60>

Sreekumar, S., & Chandrasekharan, K. (2019). Blended learning in higher education: A study of its effectiveness in student learning. *International Journal of Education and Development Using Information and Communication Technology*.

Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. SSRN: <https://ssrn.com/abstract=3205035> or <http://dx.doi.org/10.2139/ssrn.3205035>

Tanya, T. (2019). The Leadership Gap in Education. Caddo Gap Press. chrome-extension://efaidnbmnnnibpcajpcgclefindmkaj/<https://files.eric.ed.gov/fulltext/EJ1250147.pdf>

Tseng, C., & Sim, D. (2020). Sample size planning for pilot studies. *SAGE*, XX(X), 1–15. <https://doi.org/10.1177/ToBeAssigned>

Zhang, X., Admiraal, W., & Saab, N. (2022). Teacher autonomous motivation for continuous professional development: The relationship with perceived workplace conditions. *Teachers and Teaching Theory and Practice*, 28(8), 909–924. <https://doi.org/10.1080/13540602.2022.2137128>

