TRAINING TRAINERS FOR TEACHER EDUCATION AND MANAGEMENT IN KENYA (TOTEMK)

REPORT OF THE BASELINE SURVEY

PWANI UNIVERSITY TEAM

WORK PACKAGE 1

MARCH 2021

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

BBB	Big Blue Button
CBC	Competency Based Curriculum
CBL	Community Based Learning
CUE	Commission for University Education
DIES	Dialogue on Innovative Higher Education Strategies
HE	Higher Education
HEIs	Higher Education Institutions
HR	Human Rights
HRBA	Human Rights-based Approach
LMS	Learning Management System
M&E	Monitoring and Evaluation
MOOC	Massive Open Online Course
MOODLE	Modular Object-Oriented Dynamic Learning Environment
PC	Partner Country
PEEP	Parental Empowerment and Engagement Programmes
POODLE	Portable Object-Oriented Dynamic Learning Environment
PU	Pwani University
SU	Strathmore University
ToT	Trainer of Trainers
TOTEMK	Training Trainers for Teacher Education and Management in Kenya
UoN	University of Nairobi
VBE	Value-based Education
WP	Work Package

ACKNOWLEDGEMENT

Our acknowledgement goes to the Finnish Government for funding this project and to the Partner Institutions for their invaluable support and opportunity to work as a team. We further acknowledge Pwani University for allowing us to participate in the project and also for granting us permission to utilise university facilities. We also wish to acknowledge respondents from the various universities in Kenya for their participation and timely responses as required by this Baseline Survey. Their input is very valuable and will go a long way towards realisation of the TOTEMK Project objectives. Finally we recognise the major contribution of the TOTEMK team regarding its input throughout the Baseline.

1.0 Introduction

The Project, *Training Trainers for Teacher Education and Management in Kenya (TOTEMK)* is funded by the Finnish Government and involves a partnership between three (3) universities in Kenya and two (2) in Finland.

This project aims at re-orienting teachers to become competent to support the implementation of the Competency-Based Curriculum (CBC) in Kenyan schools and elsewhere in the globe. Further, the project aims to support a reformed Higher Education (HE) curriculum to be in tandem with the CBC for education and training to prepare learners with knowledge and requisite skills matching the current educational needs.
The specific outcome of the project is the enlarged number of teachers that are competent to deliver the Competency-Based Curriculum (CBC) at different levels of education in Kenya.

This report summarises the findings of a baseline survey that was conducted in Kenya between September 2020 and December 2020, and further makes recommendations of areas that will be useful to identify and guide the relevant content for inclusion in the TOTEMK training modules for Trainers of Trainers.

1.1 Background Information

The introduction of the Competency-Based Curriculum (CBC) in Kenyan schools in 2018 necessitated a comprehensive change in the instructional approach in terms of teaching, learning and assessment. This called for improvement in teacher education and training programmes to equip teachers (both pre-service and in-service) with the competencies that would enable them to handle effectively the challenges associated with implementation of CBC in schools.

While appreciating the efforts made by the Ministry of Education in Kenya, to train Primary School teachers, Early Childhood Education teachers and Special Needs Education teachers, in preparation for roll-out of the CBC, researchers from Kenya and Finland identified an existing gap in the preparation of HE lecturers and teacher trainers to implement the CBC.

To address the gap, Finnish and Kenyan scholars designed a project whose approach is based on six critical elements namely: - [1] Producing a scalable model for upgrading pedagogical and management skills for HE lecturers or teacher trainers and their students to better respond to CBC. [2] Strengthening Higher Education Institutions' (HEIs) teacher education. [3] Improving Kenyan teachers' access to in-service training. [4] Reforming universities curriculum in accordance with CBC. [5] Empowering teachers' awareness of socio-cultural issues. [6] Boosting the ecosystem for Kenyan start-ups in the field of Educational Technology.

The Project is organised in six steps. The first step embraces the activities during the inception phase (first six months) as follows; Baseline Study (WP1); Content creation and technical

platform development of WP4-7 (TOTs = Training of Trainers) (WP2); and Creating Monitoring and Evaluation (M&E) tools (WP3).

The second step upgrades the professional skills of HE lecturers through four (4) Work Packages (Training of Trainers, WP4-7 TOTs) at two (2) PC's partner universities in Nairobi (UoN and SU). The project targets participants to come from 20 purposefully selected Kenyan universities drawn from amongst universities responsible for teacher education in the Country. Each university is proposed to provide two (2) to three (3) lecturers, all totaling between 160-240 trained trainers by the end of the Project. Each WP4-7 TOTs (and WP8 TTs) includes a face-to-face hands-on training, and a distance period, which ensures lessons learnt is authentic. In addition, it should ensure socially and culturally sensitive teaching/learning situations all supervised through mobile mentoring by project staff. The project has assumed that participants will use their own devices. Participants will be awarded by certification of completed training.

The third step is planned to scale up pedagogical practices by [1] Training Trainees / further HE lecturers (N=up to 1600-2400) and their students (50/lecturers) at their respective universities supported by FIN-KEN mobile-mentoring (WP8). [2] Jointly creating MOOC (WP9) to reach and enable access by also hundreds and thousands of teachers and students at local Teacher Training Colleges and teachers in the field.

At the fourth step, pedagogical practices enhanced from training will be reflected and disseminated at multi-stakeholder seminar/workshops (WP10). Seminars/workshops will expand knowledge of varied educational practices and share good practical examples of participants of TOTEMK trainings bringing sustainability effect.

During the fifth step, review of HEIs curricula and building up the pedagogical practices at step four will take place in three partner HEIs' and other Partner Country (PC) HEIs' curricula. The project is designed to encourage Partner Country HEIs to include training materials in their respective universities' modules, which will further expand the reach of the training in the country.

Step six entails the closing seminar intended to end the project, but training will continue after the project at Teacher Training Colleges and for school teachers in Kenya by local efforts. At the end of the project, continuation of dialogue with local education authorities will be ensured. Further, continuation of collaboration, mutual learning, and international joint activities between partnering HEIs will be ensured.

2.0 Methodology

In line with the Project Plan, the Baseline Survey was carried out at the beginning of the project. Ideally it was purposed to identify benchmark information for the project activities with its main objective being to do a capacity gap analysis to inform the TOTs. The study was conducted nationwide in Kenya as an online descriptive survey.

2.1 Population and Sampling

2.1.1 Population

According to the Commission for University Education (CUE) in Kenya, there are 46 universities (public and private) in Kenya currently offering programmes in Education. All lecturers in these universities constituted the target population. The accessible population comprised of lecturers in the Schools/Faculties of Education.

2.1.2 Sampling

2.1.2.1 Sampling Procedure

1. Purposive sampling was used to identify eligible universities. Besides the three (3) partner HEIs in the TOTEMK Project, the other universities considered and included in the survey fulfilled these criteria:
   a) Is a CUE-recognised Private or Public University offering three or more accredited programmes in Education
   b) Have relative advantage regarding number of programmes offered in Education compared to universities of the same category within the eleven (11) identified zonal strata namely: - Central Kenya, Coastal Region, Eastern Kenya, North-Eastern Kenya, Kisii Nyanza, Luo Nyanza, South Rift Valley, Central Rift Valley, North Rift Valley, Western Kenya, and Nairobi County.
2. The selection of lecturers was done by a contact person from the selected institution in consultation with the relevant units within that institution.

2.1.2.2 Sample Size

a) Sample of Participating Universities

The sample consisted of 14 public and six (6) private universities within the identified 11 zones. These are distributed as shown in Table 1.

Table 1

Summary of University Sample (N=20)

SNo.	Zone	Category of the University				Total No. of Universities
		Public	Private	Partner HEI		
				Public	Private	
1.	Central Kenya	01	02	00	00	03
2.	Coastal Region	00	00	01	00	01
3.	Eastern Kenya	02	01	00	00	03
4.	North-Eastern Kenya	01	00	00	00	01
5.	Kisii Nyanza	01	00	00	00	01
6.	Luo Nyanza	01	00	00	00	01
7.	South Rift Valley	00	00	00	00	00
8.	Central Rift Valley	01	00	00	00	01
9.	North Rift Valley	02	01	00	00	03
10.	Western Kenya	02	00	00	00	02
11.	Nairobi County	01	01	01	01	04
	TOTAL	12	05	02	01	20

b) Sample of Lecturers

An expected three (3) lecturers were identified for selection from each of the twenty (20) sampled universities to make a total of sixty (60) respondents.

However, it is noteworthy that some Private universities identified only one (1) or two (2) lecturers while some public universities identified up to four (4) resulting to a sample size of 60.

Table 2 Summarises the sample of the participating lecturers.

Table 2

Sample of Selected Lecturers by their universities (N=60)

SNo.	Zone	No. of Lecturers Identified						TOTAL
		Public University		Private University		Partner HEI		
		University 1	University 2	University 1	University 2	Public	Private	
1.	Central Kenya	03	-	03	03	-	-	09
2.	Coastal Region	-	-	-	-	04		04
3.	Eastern Kenya	02	03	02	-	-	-	07
4.	North-Eastern Kenya	03	-	-	-	-	-	03
5.	Kisii Nyanza	04	-	-	-	-	-	04
6.	Luo Nyanza	03	-	-	-	-	-	03
7.	South Rift Valley	-	-	-	-	-	-	-
8.	Central Rift Valley	03	-	-	-	-	-	03
9.	North Rift Valley	03	03	03	-	-	-	09
10.	Western Kenya	03	03	-	-	-	-	06
11.	Nairobi County	04	-	03	-	04	01	12
	TOTAL	28	09	11	03	08	01	60

2.2 Data Collection

The tool for data collection and procedure used for data collection including the validation of the Tool after a pilot are described under the subsequent subsections.

2.2.1 Data Collection Tool

A questionnaire consisting of 32 items was prepared by the Research Team and used for data collection. The questionnaire was organised in two parts Part1 and Part 2. Part 1A consisted of four (4) items that sought Demographic Information of the respondent, while Part 1B consisted of five (5) items that sought information on Work Experience of the respondent. The question items in this section were close-ended.

Part 2 of the Questionnaire consisted of 23 items that sought information on training already undertaken by the respondent. It further sought from the respondent information on his/her training needs. This section mainly consisted of open-ended question items.

The tool was digitised by use of Google Forms.

2.2.2. Pilot Study

A Pilot study was conducted during the month of October 2020, to determine the suitability of the tool. The Pilot Study was conducted in six (6) universities. These universities comprised of four (4) Public and two (2) Private ones. Three (3) respondents were identified from each of the selected universities. These made up a total of 18 respondents. Out of the target 18 respondents for the pilot, 12 (66.7%) responded. Based on the responses of the 12, the TOTEMK team made adjustments to the tool to ensure its Face, Construct and Content validity.

The selected universities for the pilot fulfilled the same criteria as those for the main study but were not included in the main survey.

2.2.3 Data Collection Procedure

The Online questionnaire was sent through a link provided to each of the selected participants. The participants were given up to one week to fill and submit the questionnaires online. Both quantitative and qualitative data were collected.

2.2.4 Data Analysis

Descriptive analysis was used in the analysis of quantitative data. Qualitative data was coded thematically and also analysed descriptively. Results are presented in tabular as well as graphical form. In addition, a capacity gap analysis for the training needs in Kenya was done by using a SWOT Analysis.

3.0 Results of the Analysis

Out of the 60 respondents that were given the Questionnaire, 51 (response rate of 85%) filled out and submitted the questionnaire. Results of the analysis of data collected are based on these responses.

3.1 Results of Analysis of Quantitative Data

a) **Gender Representation of Respondents**
   Out of the 51 respondents, 58% were male and 41.2% female.
   This result reflects the reality at institutions of higher learning in Kenya.

b) **Age Distribution of Respondents**

   The distribution by age of the respondents is summarised in Table 3. From the Table, majority of the participants were of ages between 41 and 60 years. These are teacher educators who still have more than 10 years of service and will therefore benefit the project as TOTs.

Table 3
Age Distribution of Respondents N=51

SNo.	Age Bracket (Yrs)	Percentage
1.	31-40	14.0
2.	41-50	30.0
3.	51-60	48.0
4.	61-70	8.0

c) **Academic Qualification of Respondents**

Results of the analysis show that the 15.7% of participants have a Master Degree as their highest qualification. The remaining 84.3% are PhD holders. These are people that are easy to train and can train peers without challenges.

d) Distribution by Academic Rank of Respondents

Table 4 Summarises the distribution of participants by academic rank.

Table 4
Distribution of Respondents by Academic Rank (N=51)

SNo.	Academic Rank	Percentage
1.	Tutorial fellow	0.0
2.	Assistant Lecturer	7.8
3.	Lecturer	49.0
4.	Senior Lecturer	25.5
5.	Associate Professor	9.8
6.	Professor	3.9

Notable from the summary in Table 4 is that majority (Lecturers and Senior Lecturers) are the persons with experience and most likely in positions that can influence change. They still have to grow through the academic ranks and hence have more time to benefit the institutions with knowledge and skills obtained from the TOTs.

e) Areas of Specialisation of Participants

Table 5
Summary of Areas of Specialisation of Participants

SNo.	Area of Specialisation	Percentage
1.	B Ed. Technical Education	2.0%
2.	B Ed. Special Needs Education	3.9%
3.	B Ed. Science	19.6%
4.	B Ed. Early Childhood Education	7.8%
5.	B Ed. Arts	39.2%
6.	Other *	27.5%
	TOTAL	100%

The results in Table 5 show that the specialisations, B Ed. Technical Education and B Ed. Special Needs Education have a smaller representation of participants compared to B Ed. Science and B Ed. Arts. This is attributable to the reality that few universities offer programmes in these specialisations due to the high cost of running them. Furthermore, majority of universities offer programmes in B Ed. Science and B Ed. Arts which is a close reflection of what exists in universities in Kenya. Since the distribution in Table 5 reflects the true picture in HEIs in Kenya and as such training of trainers from these areas of specialisation will go a long way to benefit majority of the teacher trainees.

It is noteworthy that 27.5% of the respondents indicated additional areas of their specialisation. The details are summarised in Table 6.

Table 6

Additional Areas of Specialisation of Participants (N=14)

SNo.	Area of Specialisation	Frequency of Count
1.	Curriculum Studies and Research	01
2.	Early Years and Primary Education	03
3.	B Ed. Physical Education	01
4.	Comparative Education	01
5.	Educational Administration and Policy Studies	01
6.	Philosophy and Ethics in Education	01
7.	BSc. Agricultural Education and Extension	02
8.	Curriculum and Instruction	03
9.	Educational Foundations	01
10.	Literary Education	01
11.	Guidance and Counselling	01
12.	Counselling Psychology	01
13.	Curriculum Studies	01
14.	Child Development and Education	01
15.	Educational Communication and Technology	01
16.	Mathematics Education	01
17.	Quantitative Research Methods	01
18.	Teacher Education	01
19.	Teacher professional Development	01
20.	Educational Psychology	01
21.	N/A	02
	TOTAL	27*

* Means number of responses and not respondents. Note that some respondents gave more than one (1) response.

The results in Table 6 indicate a variety of specialisations that will synergise the TOTs.

f) Involvement in further Pedagogical Training

Results of the analysis show that 92.2 % of the respondents have been involved in further pedagogical training while 7.8% have not. Additionally, those involved in pedagogical training were either trainers (49%) or participants (51%). Further, 88.2% have been involved in Curriculum Development while 11.8% have not. Regarding peer training 76.5% indicated to have been involved while 23.5% have not.

Although the results show that majority of respondents have been involved in some form of training either as trainer or participant, there exists a gap since a small but important percentage of respondents have not been involved and hence the importance of TOT to address this gap. In

addition, those who have been trainers are an added advantage to the project outcome in terms of multiplication.

3. 2 Results of Analysis of Qualitative Data
    a) Content of Training in Pedagogy

Respondents were asked to give the content of the training they had attended. The content of training as revealed by respondents is as summarised in Table 7.

Table 7
Training content for pedagogy N=51

SNo.	Training Content	Frequency
1.	Curriculum Review	21
2.	Change Management	01
3.	Course Design	01
4.	Research Methodology	01
5.	Pedagogy	15
6.	Professional Ethics	01
7.	Use of Moodle	01
8.	Competency Based Curriculum	01
9.	Basic Counseling Skills	01
10.	Virtual Teaching	01
11.	ICT and Curriculum Development	01
12.	Open Book Examinations	01
13.	How to navigate on the LMS	01
14.	Objective Post Graduate Assessment	01
15.	Sign Language	01
16.	DIES National Multiplication Training	02
	TOTAL	51

Table 7 shows that majority (21 out of 51=41%) of the respondents have some training in curriculum review while 15 out of 51=29.4%) have some training in pedagogy. This shows that we have a good pool of respondents for the TOTs who will add value to discussions based on experience.

The Table further shows out of 51 respondents, only a small number have some training on Learning Management System (LMS) - (1), CBC (1) and Virtual teaching (1). This is an indication of the need for training in these core areas that would support the implementation of CBC.

b) Additional Responsibility of Respondent in Department

Majority of the respondents (83.3%) indicated that they have additional responsibilities while 16.7% do not have any other responsibility apart from teaching. Table 8 provides a summary of these assignments. Respondents could provide more than one responsibility.

Table 8
Summary of Additional Responsibilities of Respondents (N=43)

SNo.	Responsibility	Frequency
1.	Dean of Faculty/ School/PG Studies	06
2.	Director	02
3.	Chair of Department	09
4.	Faculty Rep.	03
5.	Programme Leader	03
6.	Programme Coordinator	09
7.	Chair/member of Committee	02
8.	TP Coordination	04
9.	Exams Coordinator/ Officer	04
10.	PG Student supervisor	02
11.	Trainer of pedagogical skills	01
12.	TT Coordinator	01
13.	Academic Advisor	02
	TOTAL	48

Key: PG-Post Graduate; TP-Teaching Practice; TT-Time Table

Notable from Table 8 is that majority of the respondents hold additional responsibility in positions that could influence decision making and are therefore valuable for the multiplication of skills obtained from the TOTs.

c) Views of Respondents on On-Going Curriculum Review

Participants have varied views on the on-going curriculum review. Their views are summarised in Tables 9 and 10.

Table 9

Views in Support of Timeliness of On-Going Curriculum Reforms (Responses=44)

SNo.	Recurring Reason for support	Frequency
1.	Moving away from an exam- oriented curriculum	05
2.	Learner centered Approach/Learning by doing/Flexible	17
3.	Different Pathways in CBC will allow each learner (those with different talents, SN and gifted) to benefit and develop their potential	07
4.	Will enable Kenya achieve the Vision 2030 goals/ Will lead to the achievement of sustainable Development goal	03
5.	Self-faced - outcome is often the goal	01
6.	Will enable Kenya participate favourably in the 4th Industrial revolution and seamless technical knowledge economy	01
7.	It allows incorporation of practical subjects like Music, Physical Education at Primary and secondary School level	02
8.	To inculcate the 21st Century skills and develop a holistic learner	02
9.	Promotes National Values, cohesion and integration of learners	01
10.	Will unlock learners potential from being passive to active seekers of information	01
11.	Will open avenues for leaners to join TIVET institutions	02
12.	Pathways will encourage creativity and critical thinking and also promote acquisition of 21st century skills.	02
	TOTAL	44

Table 10

Expressed Views on Reservations of Implementation of CBC (Responses=61)

S.No.	Recurring Reason for Reservation	Frequency
1.	Inadequate needs assessment, piloting and hurriedly implemented	10
2.	Inadequately trained teachers/human resources (implementors inadequately prepared)	16
3.	Training materials, content and others like assessment/evaluation tools to support implementation not thought of in advance	05
4.	Ill prepared secondary teacher and university lecturers (secondary implementers)/other experts like tutors and Teacher trainer instructors were left out	12
5.	In-service training that is given to primary school teachers quite inadequate for implementation	05
6.	Need to monitor its implementation – ill-prepared implementers reverting to using the traditional way of doing things	04
7.	Need to finance and equip all institutions of learning with appropriate facilities and resources to support implementation of CBC	05
8.	Need for capacity building/awareness creation of roles for the key stakeholders (teachers, parents, and larger community)	03
9.	Urgent reforms in teacher training curriculum and Methodology to prepare teachers that will deliver the New CBC (Reforms of TTC) – need to equip the trainers with the necessary 7 competencies: a. Communication and collaboration; b. Self-efficiency; c. Critical-thinking; d. Creativity and imagination; e. Digital literacy and f. Learning to learn	01
	TOTAL	61

NB: Majority of the 51 respondents had more than one view hence the number of responses exceeding the number of respondents.

The results in Tables 9 and 10 show that majority of respondents recognise and support the on-going curriculum reforms although they have reservations on preparedness for implementation with reference to training material, training of trainers and hurriedness in implementation of suggested reforms. Despite the acknowledgement of the role that the Reforms will play making the curriculum more learner-centred and flexible, there is the overriding fear of inadequacy of needs assessment and preparation of the required human resource.

d) Efforts made by institutions to align programmes with CBC

Majority of institutions are at different stages of aligning their teacher education programmes with CBC. Table 11 summarises the information obtained from the respondents on the matter.

Table 11

Institutional efforts to align curriculum with CBC (N=51)

S.No.	Recurring Response on Effort Made	Frequency
1.	Sensitisation talks /Seminars/workshops/ to lectures and students	12
2.	Reviewed/ have begun to review programmes to align them to current reforms (CBC)	11
3.	Development of training manual for training lecturers on CBC	01
4.	Developed a general Educational Framework that encompasses the philosophy of CBC	01
5.	No deliberate structured effort done to sensitise the Faculty	08
6.	Trained Deans and Directors who will cascade information to other lecturers	03
7.	Invited KICD personnel to create some sensitisation/awareness to lecturers	04
8.	Training Lecturers on CBC preparation of CBC Curriculum/Learner-centred approaches	02
9.	Trained lecturers to infuse CBC content in the existing programmes/ infused some elements of CBC in programmes within the |School of Education	08
10.	Encouraged and sometimes facilitated lecturers to attend seminars/workshops on CBC either externally or internally	05
11.	Written a proposal to review the Teacher Training Curriculum	01
12.	External Refresher training for some lecturers	04
	TOTAL	60

NB: Majority of the 51 respondents had more than one view

Results summarised in Table 11 are an indication that most universities are at different but not major stages of alignment except for 11 responses indicating alignment of programmes to CBC in the respective university. Eight (8) responses indicate that some universities have not made any deliberate effort to even sensitise staff on CBC. This is a gap that the project can build on during TOTs to help institutions in their efforts to align their programmes to the CBC.

e)   Information about Training on CBC

Respondents were asked to describe the nature and content of the training on CBC that they had attended. Their responses are summarised in Table 12.

Table 12

Summary of Responses Regarding Respondents Training on CBC (Responses=27)

SNo.	Recurring Responses	Frequency
1.	TOT for training Primary School Teachers at Educational Zones	03
2.	Building capacity of teachers on Implementation of CBC at ECDE, early grades, TVET	05
3.	KICD Presentation on CBC Framework	03
4.	Structured content of CBC/Sensitization on CBC	07
5.	Pedagogy in CBC	01
6.	TVET CBC Curriculum	02
7.	Developing designs for CBC	01
8.	Developing CBC Learning material for early Schoolers and primary Teacher colleges	02
9.	Learner centered approaches and pertinent issues in CBC	03
	TOTAL	27

The results summarised in Table 12 are an indication of some of the efforts in various universities towards a structured way to train lecturers on CBC; efforts that can be built upon by the TOTEMK TOTs.

f) Suggestions on Relevant Areas for TOTs

Respondents were asked to suggest relevant areas for training teacher trainers on CBC. Table 13 provides a summary of their suggestions.

Table 13

Respondents' Suggestions on Relevant Areas for TOTs (Responses=32)

SNo.	Recurring Suggestion	Frequency
1.	Leaning/Teaching Designs/Approaches for CBC	04
2.	Creative pedagogy	01
3.	How to facilitate inquiry learning in class -	03
4.	Assessment in CBC/ Authentic Assessment Tools in CBC at all levels including university	04
5.	Classroom Management/Addressing the diverse needs of learners in the classroom setting	03
6.	Planning for instruction for teacher training – lesson planning and scheming in CBC	04
7.	Use of ICT (digital Tools)in CBC	03
8.	Designing curriculum for learners with special needs	
9.	Area of emphasis in teacher training and at the universities for Teacher Trainees in CBC	02
10.	The CBC Content	02
11.	Developing curriculum designs, assessment/evaluation tools for CBC	03
12.	Integrating CBC in teaching and learning	01
13.	Development of learning outcomes in CBC curriculum.	02
	TOTAL	32

The areas summarised in Table 13 were suggested by respondents to be important for TOTs and shall help guide selection of content and material for training modules.

g) Participating Institutions Efforts to Adequately Support Students for National Roll-Out Of CBC

When asked to indicate efforts made by their respective institutions to adequately suppport their students for the national roll-out of the CBC, respondents indicated various efforts as summarised in Figure 1. 'Incorporation of e-learning' was indicated by the majority(82.4%), followed by 'Revision of the Curriculum' (58.8%). This was followed by 'Availing of Resources for Technological Support' (45.1%), and 'Training of Lecturers' (37.3%). It is notable that training of lecturers was mentioned by fewer respondents compared to the others implying a deficiency in this area; an indication that the TOT will be relevant and useful to many institutions.

Efforts by participating institutions to adequately support students for national roll-out of CBC
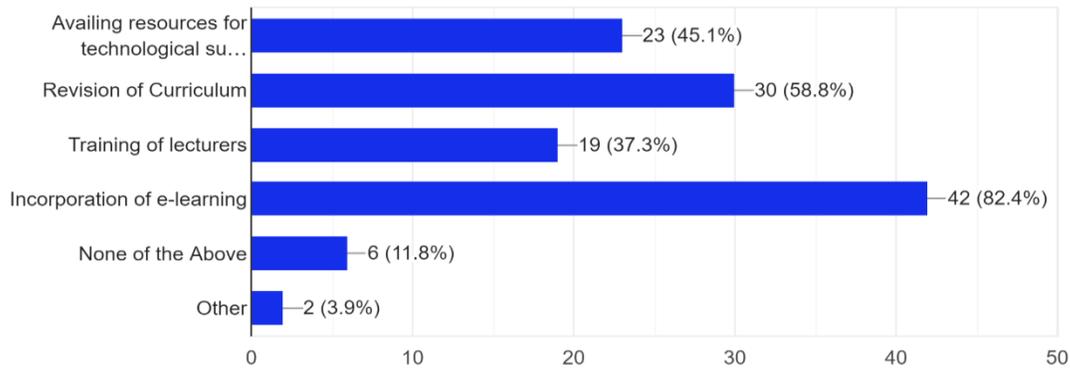
Other efforts mentioned include: -

i. Providing peer counselling services for teacher trainees.
ii. Deans of Faculties and Directors were trained before Covid-19 struck hoping that they would argue for training of Faculty. Training will resume.
iii. Training of students in CBC during Instructional Methods course , teaching methods courses and Micro-teaching
iv. Training undergraduate students refresher courses in CBC delivery and assessment

h) Information on Digital Tools Currently used by Respondents

Information on digital tools are summarised and presented in Figure 2.

Figure 2:
Information on Digital Tools currently used by respondents
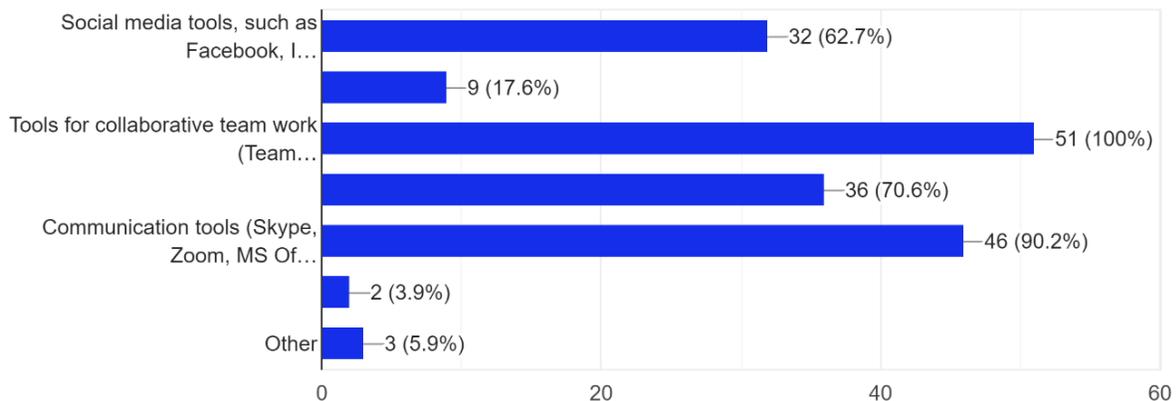
Other online tools mentioned include: -

i. LMS the Learning Management System
ii. BBB
iii. WhatsApp
iv. MOODLE AND POODLE Learners Management Systems
v. Videos
vi. Google Scholar, Research Gate, Mendle and others. We are exploring the possibility, despite the expenses of Blackboard, C-Engage and others.

Results in Figure 2 show that all respondents have used various forms of digital tools. Further, all (100%) have used tools for collaborative team work such as (Teams, Zoom, Skype, KeNet, other). Regarding communication tools, 90.2% have used tools such as Skype and MS Office tools. More still (70.6%) have used tools for documentation such as Google while 62.7% have used Social media tools such as Facebook. The least used digital tools were Digital Tablets (6.9%) and Mind-Mapping(3.6%).

Although the results show majority of the respondents have had an experience in using digital tools, there is need for the training to strengthen this. In addition, mind mapping is a useful tool in increasing creativity and productivity among learners, hence the need to address it in the TOTs.

i) **Learning Management Systems currently used by Institutions**

Figure 3:
LMS currently being used by Institutions
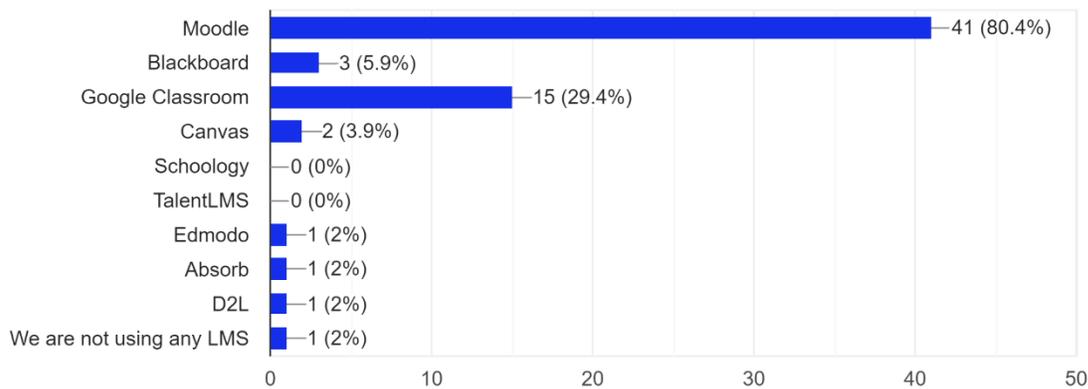
Results in Figure 3 show that 80.4% of respondents are using Moodle as a Learning Management System. The results further show that 29.4% use Google Classroom whereas 5.9% are using Blackboard. The least used learning Management systems were Canvas (3.9%), D2L (2%), Edmodo (1%), and Absorb (1%). Nonetheless, 2% of the respondents indicated they were not using any LMS.

Arguably, since from most of the respondents use Moodle as an LMS, creating the TOTEMK tool in Moodle is advantageous. This notwithstanding, there may be need to upgrade skills in use of MOODLE for all participants to enhance their access to the ToT material.

j) Video conferencing tools used by participating institutions
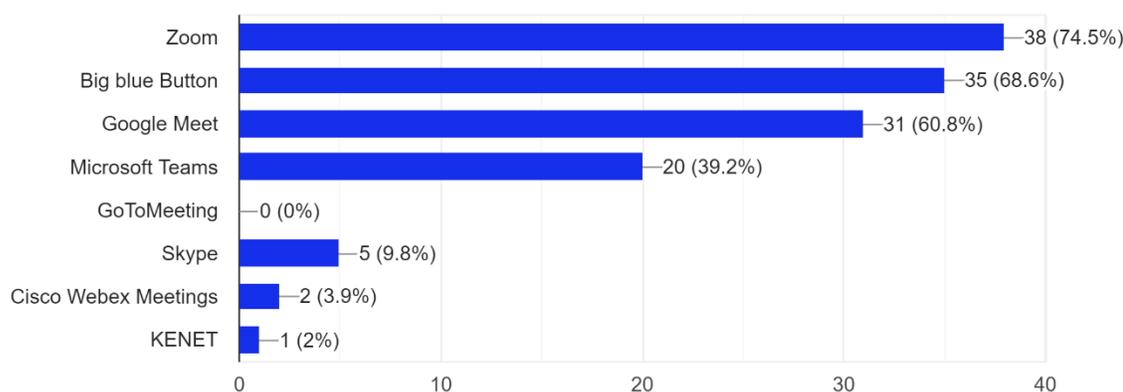
Results in Figure 4 show that 74.5% of respondents have used Zoom as a video conferencing tool while 68.6% have used Big Blue Button. In addition, 60.8 % have used Google Meet and 39.2% have used Microsoft teams. Skype and Cisco WebEx are the least used video conferencing tools at 9.8% and 3.9% respectively.

Since respondents already have knowledge of video conferencing tools, this will inform the TOTs on the appropriate video conferencing tool.

k) Suggestions on Essential Pedagogical Skills that Teacher Trainer and Teacher Trainee Require

Table 14 Summarises essential pedagogical skills suggested for teacher trainers and teacher trainees. Several respondents provided more than one response.

Table 14

Essential Pedagogical Skills for Teacher Trainers and Trainees (N=51)

SNo.	Recurring Responses	Frequency of Count
1.	Classroom Management Skills	68
2.	Content Management Skills	46
3.	Technical Skills	07

Table 14 shows that Classroom Management as well as Content Management skills were suggested as the are most essential pedagogical skills for teacher trainers and teacher trainees. Therefore it could be important to include these in the ToTs.

l) Essential Technical Skills For Delivering Online Courses

Respondents could suggest more than one technical skill. Their suggestions are summarised in Table 15.

Table 15

Suggested Essential Technical Skills for Delivery of Courses Online

SNo.	Recurring Suggestion	Frequency of Count
1.	IT Knowledge	11
2.	Management of LMS	08
3.	Online Tasks	06
4.	Usage of online tools	02
5.	Communication	04
6.	Evaluation	02
7.	Design & Navigation	06
8.	Access	01
9.	Handling Software	01
10.	Presentation skills	04
11.	ICT skills	01
12.	Content	03
13.	Management skills	17
14.	Technical Knowledge	10
15.	Audio Visual	01
16.	Active listening	03
17.	Organisational	01
18.	Continuous learning	01
19.	Time Management	01
20.	Content Management	01
21.	Managing learning management systems	01
22.	Trouble shooting	01
23.	Continuous Learning skills	01
	TOTAL	87

Table 15 identifies 'IT Knowledge' and 'Management skills' considered as more essential compared to other technical skills for online delivery of courses. This also points to where emphasis should be placed during TOTs.

m) Suggested Important 21st Century Skills for the Labour Market

Respondents could suggest more than one 21st Century skill. Their suggestions are presented in Figure 5.

Figure 5:
Important 21st Century Skills for the Labour Market
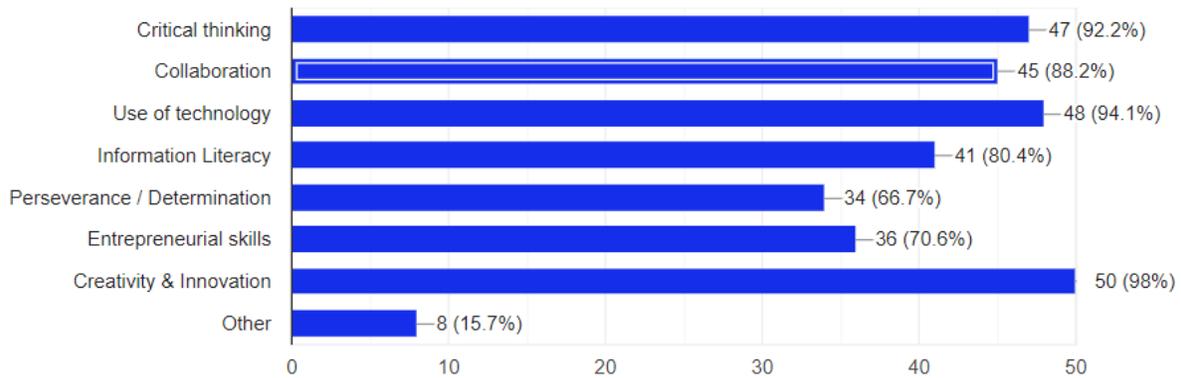
Other suggested skills include: -

   i.   Decision Making
  ii.   Life skills
 iii.   Communication skills,
  iv.   Literacy skills
   v.   Analytical skills
  vi.   Leadership professionalism
 vii.   Self-efficacy
viii.   Problem solving
  ix.   System thinking

The results in Figure 5 show that majority (98%) of respondents indicated Creativity & Innovation as an important 21st Century skill for the labour market. Others in order of priority are Use of Technology (94.1%), Critical Thinking (92.2%), Information Literacy (88.2%), Collaboration (80.4%), Entrepreneurial Skills (70.6%) and Perseverance/Determination (66.7%). These results could be a pointer to the key skills to be included in the TOTs.

n) Suggestions on Effective Transition by Universities from 8-4-4

Respondents were allowed to give more than one suggestion. Their suggestions are summarised in Table 16.

Table 16

Summary of Suggestions for Effective Transition from 8-4-4 (N=51)

SNo.	Recurring Responses	Frequency of Count
1	They need to be enabled to embrace ICT and other technology fully.	07
2	How to adjust teacher training models to sufficiently equip trainees with competencies to adequately deliver CBC and to start with curricula review to incorporate the changes and align to CBC	22
3	Focus on learning to learn instead of what to learn	05
4	Train teacher trainers on CBC	13
5	Operationalize principles of BECF and CBC for teacher trainers	08
6	Train Trainers on Parental involvement and mentorship	06
7	Train trainers on relative advantage of CBC	01
8	Train faculty on cost effective approaches to curriculum review	01
9	Train on pedagogical skills to embrace CBC	09
10	Train on student assessment	02
	TOTAL	74

Table 16 identifies 'Adjusting of training models to CBC' (22) as most crucial for effective transition from 8-4-4 to CBC. This is followed in order of preference by 'Training of Trainers on CBC' (13). All the information summarised in Table 16 is important for the ToT.

o) Respondents Views on How to Reform Teacher Education for Successful Implementation of CBC

Respondents could give more than one response. Their responses are summarised in Table 17.

Table 17

Views on How to Reform Teacher Education for CBC Implementation (N=51)

SNo.	Recurring suggestions	Frequency of Count
1.	Include more learning of technology skills to improve digital literacy	07
2.	Improve the training models for teacher trainers	08
3.	Train university lecturers on CBC core competencies and core values of the 21st Century skills	21
4.	Adopt a more skills-based approach for assessment in teacher training	06
5.	Review Teaching Practice to focus more on project-based practice	03
6.	Review the resources for teacher trainees and environments	05
7.	Review the current teacher education programmes and align them to CBC	07
8.	Enhanced government support to employ more Methods lecturers to support organisation of classes into smaller manageable sizes	02
9.	By including in the teacher training programmes skills that will enable teachers to innovate/create and be compliant with use of instructional technologies.	02
10.	Prepare appropriate Training materials and modules that will ensure effective implementation of CBC	04
11.	Improve Inservice training by embracing training modes that reflect what is expected of teacher trainers and trainees to adopt	02
	TOTAL	67

Table 17 identifies 'Training of University Lecturers on 21st Century Skills' as an important way to reform teacher education for CBC implementation.

p) Comprehension of the Essential Aspects of BECF

Results indicate that 72.5% have read the BECF while 27.5 have not. Table 18 summarises the various interpretations by respondents of what the BECF is.

Table 18
Various Perceptions of What BECF is (N=43)

S.No.	Recurring Responses	Frequency of Count
1.	Learner -Centred curriculum that is expected to produce empowered, engaged and ethical citizens	09
2.	Alignment to the Constitution of Kenya 2010, Kenya's Vision 2030, and harmonization with EAC structures	04
3.	Various subjects leading to different pathways	07
4.	Theoretical framework guiding CBC	06
5.	Outlines the philosophy and application of CBC to reform basic education in Kenya	15
6.	I have no idea	02
	TOTAL	43

One outstanding revelation of the results summarised in Table 18 is the lack of holistic comprehension of what the BECF is. There is need to address this knowledge gap through training.

q) The Most Significant Challenges of BECF

Respondents have identified a variety of challenges regarding BECF. Their views are presented in Table 19.

Responses were allowed to give more than one response. The result is

Table 19
The Most Significant Challenges of BECF Identified by Respondents N=43

SNo.	Recurring Responses	Frequency of Count
1.	It's plan of implementation is too ambitious and seems to be driven by the politician.	02
2.	The lack of adequate teacher and trainer preparation in readiness for curriculum roll out.	09
3.	Lack of or varied understanding of the BECF	01
4.	Designing relevant curriculum designs; engaging and empowering parents to be able to do their part	02
5.	Inadequate finances and funding	07
6.	Inadequate/Inappropriate e-infrastructure and other equipment	04
7.	CBC requires different environments and resources that are not available	08
8.	Fixed mindset and attitude on the traditional role of teacher	03
9.	Assessment methods	04
10.	Inadequate understanding by teachers what the CBC entails and its implementation model	02
11.	Inadequate time for try out before roll-out	02
12.	Inadequate sensitization of key stakeholders	02
13.	Large class size	02
	TOTAL	48

Table 19 shows that respondents identified 'Lack of adequately prepared trainer of trainers'; 'suitable environment and resources' to be major challenges for BECF. This is a gap that the Project needs to seriously address during the TOTs.

r) The Perceived Role of Teacher Trainer in the Implementation of BECF

Respondents had varied views on the role of teacher trainers in the implementation of BECF. Their views are summarised in Table 20. Accordingly, 'the teacher trainers' role of awareness creation and capacity building' was identified by most respondents as crucial. This result will inform the TOT to equip better the teacher trainer with suitable skills to play this role.

Table 20

Respondents views on role of teacher trainers of BECF implementation (N=41)

SNo.	Recurring view	Frequency of Count
1.	To empower teachers with values and skills to effectively implement the BECF.	05
2.	To create awareness and build capacity on CBC implementation Ensuring quality training of human resource (teachers)	19
3.	To facilitate the instructional process by creating an enabling environment for trainees to engage and generate knowledge	04
4.	Development of appropriate approaches and research on relevant policies that ensure success of BECF	02
5.	Being a role model	05
6.	Not quite sure	03
7.	NA	03
	TOTAL	41

s) Lecturers Understanding of the Inquiry-Based Learning

Respondents could give more than one response. they had various interpretation of the Inquiry-based learning. Their views are summarised in Table 21.

Table 21

Lecturers Understanding of PC Inquiry-Based Learning (N=51)

SNo.	Recurring View	Frequency of Count
1.	Learner-centred approach where teacher is guide or facilitator	28
2.	Learning where learners are facilitated to develop exploratory skills	10
3.	Learning that emphasises on development of critical thinking in order to solve problems	05
4.	Learning that emphasises active and constructivist approach	11
5.	Learning where learners are encouraged to be creative and innovative while learning	04
6.	Learner discovers and generates concepts through inquiry	08
7.	Collaborative learning	03
8.	Do not understand	01
	TOTAL	70

Results in Table 21 are an indication that lecturers have some snippets of ideas of what inquiry-based learning is. This forms a base to begin from in the TOTs in order to enhance their understanding of inquiry-based learning. Further, regarding preparation of students to support the inquiry-based learning, the respondents agreed that providing various opportunities for exposure to inquiry-based learning was important. It is recommended that the TOTs content be enhanced regarding inquiry-based learning to include these various views given.

t)   **Suggested Requirements for Value-Based Education (VBE)**

Respondents could give more than one response. They suggested requirements for Value-Based Education summarised in Table 22.

Table 22

Suggestion for requirements of value-based education (N=51)

SNo.	Recurring Responses	Frequency of Count
1.	Sample activities	10
2.	Value alignments	06
3.	Training manuals	15
4.	Peer support	10
5.	An LMS	02
6.	Internet ready device	02
7.	Pre requisite content	01
8.	Time	02
9.	Training and exposure	18
10.	Consciousness between pupils, parents and teachers	02
11.	The understanding of the basic needs of children	02
12.	Exemplary teachers	01
13.	Encourage aspect of role models	01
14.	Designing and implementation of training procedures and materials for VBE	02
15.	Good environment	02
16.	Sample activities and assessment methods	01
17.	Need for knowledge on how to translate value based learning into activities that build values in schools	01
18.	Detailed specific objectives	03
	TOTAL	81

Table 22 provides a good variety of complimentary requirements for Value-Based Education. Training manuals and training courses in this area was mentioned more times compared to other suggested requirements. This is in line with the TOTEMK objectives.

u) Suggested Requirements for Community Service Learning (CSL)

Respondents could give more than one response. They suggested some requirements for Community Service Learning. Their suggestion are summarised in Table 23.

Table 23

Requirements for Community Service Learning (N=43)

S.No.	Recurring Views	Frequency of Count
1.	Structured Service Learning	12
2.	Grading Service Learning	03
3.	Support	05
4.	Sample Service Learning Sites	03
5.	Financial Resources	03
6.	Training and Exposure	06
7.	Partnership with Community Leaders	07
8.	Evaluation of community Service Sites	01
9.	Community networks	08
10.	Peer support	01
11.	Local administrative units	01
12.	Design and scheduling community service learning	09
13.	Grading service learning	01
14.	Time and resources	01
15.	Tool kit	01
16.	A willing community to absorb the learners	05
17.	Mobilisation of contact persons and inducting them to host CSL activities	01
18.	Provision of cyber villages	01
	TOTAL	69

Results in Table 23 show 'Structured Service Learning' as a most important requirement compared to the others. Close to this in order of prominence are 'Design and Scheduling Community Service Learning', 'Community Networks', 'Partnerships with Community Leaders', and then 'Training and Exposure'. These results are important information for the ToTs on how to prioritise and order the training content in the manual.

v) Suggested Ways to Successfully Implement Parental Empowerment and Engagement Programmes (PEEP)

Views given by lecturers on how to successfully implement Parental Empowerment and Engagement Programmes are summarised in Table 24. Respondents were allowed to give more than one response.

Table 24

Summary of Suggested Ways of Successful Implementation of PEEP (N=43)

SNo.	Recurring views	Frequency of Count
1.	Parental programmes	07
2.	Training materials and sample activities	15
3.	Sample activities	06
4.	Financial resources	01
5.	Training and exposure	20
6.	Competencies and abilities of parpents	01
7.	Communication channels between parents and school	01
8.	Motivating parents to participate	01
9.	Appreciating parental role	01
10.	Mitigating on communication barriers	01
11.	Time and resources	03
12.	Tool kit manuals	01
13.	Engagement with community and leaders	01
14.	Guidelines on parental empowerment and engagement	01
15.	Build teacher parent relationship	04
16.	Be accountable	01
17.	Simple clear communication to parents	01
18.	Dedicated Human Resource	01
	TOTAL	67

Table 24 shows the most prominent way on the list for successful implementation of PEEP is 'Training and Exposure' followed by 'Training Materials and Sample Activities'. This is a result that should be used to inform the content of the ToT when addressing the subject of PEEP

w) Suggested views on requirements for Formative Assessment

Respondents suggestions on requirements for Formative Assessment are summarised in Table 25. Respondents were allowed to give more than one response.

Table 25

Views on Requirements for Formative Assessment N=43

SNo.	Recurring views	Frequency of Count
1.	Sample assessment	03
2.	Strategies for effective formative assessment	01
3.	Objectives of learning	01
4.	Mechanisms to receive feedback	01
5.	Teacher knowledge on content	01
6.	Success criteria	01
7.	Students learning styles	01
8.	Training of teachers	08
9.	ICT	02
10.	Assessment materials	03
11.	Analysis of students	03
12.	Participatory and practical evaluation	03
13.	Profiling and record keeping	09
14.	Time resources	04
	TOTAL	41

Table 25 shows that training of teachers on Assessment skills is crucial for successful implementation of Formative Assessment under the CBC. This is in line with the TOTEMK objectives.

x) Suggested Views on Requirements for Summative Assessment

Respondents suggestions on requirements for Summative Assessment are summarised in Table 26.

Respondents were allowed to give more than one response.

Table 26

Views on Requirements for Summative Assessment (N=43)

SNo.	Recurring views	Frequency of Count
1.	Sample assessment	05
2.	Strategies for summative assessment	01
3.	Mode of grading	01
4.	Purpose of assessment	01
5.	Manner of reporting	01
6.	Training on summative evaluation strategies	11
7.	ICT	01
8.	Result analysis	01
9.	Time and Resources	03
	TOTAL	25

Table 26 shows that training of teachers on Assessment skills is crucial for successful implementation of Summative Assessment under the CBC. This is in line with the TOTEMK objectives.

From Tables 25 and 26 it is ostensible that, Assessment is an area of interest and there is need for its inclusion in the training modules.

y) Relevance of ICT in the roll-out of the CBC

Views on relevance of ICT in CBC roll-out are summarised in Table 27. Respondents were asked to provide the relevance of ICT in the roll-out of the Competency Based Curriculum.

All respondents agreed that ICT was very relevant and pivotal in the roll-out. Table 27 summarises some of the reasons given to support the relevance of IT.

Table 27
Views on Relevance of ICT in Roll-Out of CBC N=51

S/No.	Information provided	No of times
1	Research & Innovation Tool	02
2	Enhancing Learning Experiences	14
3	Design, Development of Learning Materials /Aids	08
4	Teaching	05
5	Acquiring 21st Century skills	05
	TOTAL	34

Table 27 shows most respondents supported their stand on ICT because of the role it played in enhancing learning experiences. This result suggests that IT should be an integral part of the TOTs.

3. 3 Results of the Gap Analysis

A capacity gap analysis in Kenya was further done by using a SWOT Analysis. Results of the analysis are presented under the subsequent sub-sections

3.3.1 Existing Situation
Strengths

1. Some institutions have commenced curriculum review while a larger number of institutions are at various stages to align their teacher education programmes to CBC.
2. Involvement of participants with an age distribution and qualification profile whose training through the Project will benefit institutions for long.
3. Majority of the participants have at least had some basic training in CBC.
4. Majority of participants hold positions that can influence change within their institutions.
5. Majority of participants have positive attitude towards the New Competency Based curriculum and are willing and eager to hone their skills to enhance effective transition of teacher education programmes to the proposed CBC

6. Some participants can clearly articulate the challenges of the BECF and have practical solutions.
7. Majority of participants understand the need for reforms in teacher education and suggest some useful ideas to support success of the reforms.
8. Majority of participants are eager to adopt a more skills-based pedagogy in teacher training.
9. Majority of participants are willing to integrate ICT in facilitation with some having embraced and used online tools for communication learning and collaboration.
10. Participants willing to learn how to incorporate parental and community involvement into the teacher education programmes.
11. Some participants clearly described value-based education, formative assessment and summative assessment, and suggested what was required for improvement.

Weaknesses

1. Failure by majority of institutions to project on timelines and necessary facilities to implement the CBC.
2. Few Faculty understand cost-effective approaches to curriculum review.
3. Few lecturers have full comprehension of the BECF and by extension the CBC.
4. Most participants have inadequate online skills for Classroom Management, Content Management and learner assessment.
5. Lecturer training programmes that are inadequate in skills that will enable teachers to innovate/create and be compliant with use of instructional technologies for CBC.
6. Most CBC trainings received were very basic, and mainly from peers.
7. Some institutions have done completely nothing -waiting on CUE to give direction on CBC.
8. Failure by KICD facilitators to fully embrace the guiding principles of CBC in training and sensitisation at all levels to include university lecturers.
9. Focus by government agencies on preparing ECD and primary School teachers for CBC roll-out while leaving out the teacher trainer at university.

Opportunities

1. Align existing university teacher education programmes with requirements of the CBC
2. Areas of training delineated by the participants
3. Capacity building for human Resource and facilities
4. Consultative engagement and collaboration with all stakeholders interested in CBC implementation
5. Creating a learning platform using MOODLE since many institutions are using it
6. Enhanced support to employ more Methods lecturers to support organization of classes into smaller and manageable sizes
7. Enhancement of internet infrastructure
8. Enriching subject matter and reviewing the learning outcomes

9. Improve the training models for teacher trainers
10. Include in the teacher training programmes skills that will enable teachers to become more innovative and creative in order to embrace the CBC.
11. Operationalise and articulate the BECF and CBC for teacher trainers
12. Prepare appropriate Training materials and modules that will ensure effective implementation of CBC.
13. Re-tooling training pedagogies for teacher education programmes to embrace CBC
14. Reviewing Curriculum at the university to align it to the CBC
15. Tapping on the potential of all the learners endowed with different competencies
16. Train Faculty on cost effective approaches to planning and carrying out curriculum review
17. Train Trainers on Parental involvement and mentorship
18. Train university lecturers on CBC core competencies and core values of the 21st Century skills
19. Training in online skills on classroom management, content management and learner assessment.
20. Training in results analysis in relation to CBC

Threats

1. Inadequate lecture and laboratory facilities and learning resources to support teacher preparation.
2. Inadequate subject methods lecturers and inability by universities to hire additional ones due to limited funds.
3. Lack of fast and reliable stable internet connectivity.
4. Large student classes enrolled for B Ed. Programmes.
5. Lecturers concentrating on learning outcomes that are not aligned to the 21st century skills.
6. Possibility by university management not to fully support curriculum review of teacher education programmes to align with CBC due to reduced GoK or sponsor funding.
7. Rejection of new ideas in CBC by some professors because they were not involved right from the beginning.
8. Some learners having limited or no access to technology.
9. Teacher's refusal to adapt to changes and instead still using the traditional old approaches.
10. Underlying fear by some teacher educators that the CBC will be mutilated before it takes hold.
11. Difficulties in managing change.
12. Thinking by some university lecturers that implementation of CBC is premature.
13. Most teachers were taught and trained in the curriculum being phased out, hence their default system.
14. Inadequate needs assessment and piloting.
15. Majority of lecturers do not realise their pivotal role in implementation of CBC.

The SWOT shows more strengths and opportunities compared to the threats and weaknesses. The Project could exploit some of the opportunities to enhance the content of the TOTs.

3.3.2 Desired Situation

i. Re-oriented lecturers competent to support the implementation of the Competency-Based Curriculum (CBC) in Kenyan schools and elsewhere in the globe.
ii. Many teachers that are competent to deliver the Competency-Based Curriculum (CBC) at different levels of education in Kenya.
iii. A reformed Higher Education (HE) curriculum that is in tandem with the CBC for education.
iv. University learners with knowledge and requisite skills matching the current educational needs leading to improved teaching capacity in HEIs in Kenya.
v. A well-developed students' digital learning environment to correspond to current education needs through use of new pedagogical tools and application of modern pedagogical technology.
vi. Empowered lecturers and their students on socio-cultural issues to respond effectively to Kenyan CBC under The Basic Education Curriculum Framework (BECF).
vii. A re-tooled university lecturer that is competent in the 21st Century skills.
viii. A well-functioning, relevant and accessible higher education to the students with modernised HEIs' teacher education that can respond to the learning and teaching crisis.

4.0 Findings of the Baseline - Gaps in Capacity

i. Some university lecturers have not fully understood what the BECF is about.
ii. Inadequate Preparedness of lecturers for the national roll-out.
iii. University curriculum that is not reformed and aligned in accordance with the CBC.
iv. Majority of lecturers are inadequate in pedagogical and management skills that are in tandem with the requirements of the CBC and employment needs of the labour market.
v. Most lecturers lack solid understanding of the CBC together with modern approaches that are aligned to CBC for example, the Inquiry-based Approach, blended learning, online learning and other technologies that enhance learning.
vi. Inadequate numbers of teacher trainers who have 21st century skills.
vii. Universities lack guidelines and standards from CUE to assist universities to inbuild quality in their teacher education programmes.
viii. Reduced awareness of socio-cultural issues by teachers.
ix. Most lecturers do not have adequate assessment skills that are aligned to the CBC.
x. Most lecturers have inadequate practical skills in Information Technology and digital literacy that is required for CBC.
xi. Lecturers Lack training material for value-Based Education (VBE).
xii. Lecturers cite lack of a structured Community Service Learning (CSL).

xiii. Lecturers cite lack of training and exposure to the Parental Empowerment and Engagement Programmes (PEEP).

5.0 Conclusion

The current challenges in the education situation in Kenya call for an urgent development of a comprehensive training of trainers programme to empower lecturers, teacher trainers and their students to deliver the changes that have been made in the existing basic school curricula. In particular, the introduction of the Competency Based Curriculum (CBC) in Kenyan schools calls for a comprehensive change in the instructional approach in terms of teaching, learning and assessment. This requires improvement in teacher education and training programmes to equip teachers (both pre-service and in-service) with the competencies that will enable them to handle effectively the challenges associated with CBC implementation in schools. There is thus a strong need to support the Kenyan universities' teacher education and Teacher Training Colleges in embracing the CBC which has already been rolled out in pre and primary schools. This should enhance their preparedness in good time to avoid being caught off-guard.

In addition, the CBC has identified digital learning as an integral part of teaching and learning at all levels. This is an area that has been found to be currently wanting and should be addressed. Other areas where universities require support are CSL, VBE and PEEP and should be addressed too.

6.0 Recommendations and Suggestions for TOTs

Recommendations and suggestion regarding areas of training are given under this section. This summary should guide in selection of content for TOT training Manuals.

1. Assessment or evaluation strategies and tools for the CBC at all levels of learning
2. Aligning Curriculum Review for Teacher Education Programmes at University level with the CBC
3. Defining curriculum for learners with special needs/gifted and talented

4. ICT integration and digital learning in University teacher education programmes.
   a) Classroom Management Skills
      Effective online communication and teaching skills through discussions, presentations, questions and proper time management.
      i. Assessment and Evaluation skills
      ii. Handling leaners with learning difficulties
   b) Content Management Skills
      i. Design, development and preparation of online content.
      ii. Delivery of online content.
   c) Technical Management Skills
      i. Computer literacy skills for teaching and learning
      ii. Design and navigation of Learning Management System.
      iii. Communication, presentation, organizational and active listening skills.

5. Embracing/facilitation of inquiry-based learning/delivery strategies for inquiry-based learning in CBC.
6. Parental and Community involvement in implementation of CBC
7. Developing, adapting and adopting appropriate teaching and learning resources approaches and methodologies for CBC
8. Addressing the diverse needs of learners in a classroom setup
9. 21" Century skills for effective implementation of CBC
   a) Critical thinking
   b) Creativity
   c) Collaboration
   d) Communication
   e) Information literacy
   f) Media literacy
   g) Technology literacy
   h) Flexibility
   i) Leadership
   j) Initiative
   k) Productivity
   l) Social skills

10. Planning for classroom teaching under the CBC
11. Re-tooling training pedagogies
12. Value-Based Education
13. Community Service Learning
    i. Structuring service learning
    ii. Grading service learning
    iii. Preparing a grading rubric

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Appendix 1:   Baseline Survey Steps
1. Identification of the target (within four weeks)
   a) Identify the target universities (All universities that offer teacher education programmes at undergraduate level plus the teacher training colleges and basic education institutions).
   b) Select the 20, if they are more than 20.
   c) Establish contact from these institutions.
   d) Sampling 2-3 lecturers from each university.
   e) Identify other participants through the contacts.

2. Development of the tool (within six weeks)
   a) Identification of items guided by the research objectives.
   b) Assemble the tool in a logical manner.
   c) Convert the tool to a digital format.
   d) Carry out pilot test on a selected sample.

3. Data Collection (within three weeks)
4. Entry of data into a statistical software (within four weeks)
5. Data Analysis(within two weeks)
6. Compilation of the report (within four weeks)
7. Dissemination of the information to key stake holders (KICD, CUE, MoE, Universities, Colleges) (within one week)

Appendix 2: Questionnaire

KE-FIN baseline survey

Questionnaire for TOTs (University Lecturers from Schools of Education)

TOTEMK- Training Trainers for Teacher Education and Management in Kenya is a project between the Finnish and Kenyan scholars that is carrying out a comprehensive training of trainers programme to empower lecturers, teacher trainers and their students to deliver the changes that have been made in the existing basic curricula towards student-centered inquiry-based approaches and the CBC.

The response you give will be treated with confidentiality and will be used only for the purpose of TOTEMK. The questionnaire has two parts (A and B) and you are required to enter the details in all the areas

PART 1 - DEMOGRAPHIC INFORMATION

A. Personal information
1. Name of Respondent (optional): _____

2. Tel. No. of Respondent (optional): _____

3. Age of respondent 21 – 30 ()   31 – 40   ()   41 -50 ()   51 – 60 ()

   61-70 ()   Above 70 ()

4. Gender of Respondent: (optional)

        Male (……)   Female (….)

B. Work and Experience

1. Which institution are you affiliated to? (Select from list)

   University of Nairobi

   Kenyatta University

   Egerton University

   Pwani University…….

2. Please indicate Your area of specialization in the field of Education: (select from list)

   B.Ed Early Childhood Education ()

   B.Ed Primary Education ()

   B.Ed Special needs ( )

   B.Ed. Arts ( )

   B.Ed Science( )

B.Ed Technical Education

Others, Specify _____

3. Do you have any additional responsibility in your department?

Yes (..) No (..)

    a. If yes, please indicate what additional responsibility this is:

      _____

4. What is your current academic rank at the institution? (select from list)

Graduate/Teaching Assistant ( )

Tutorial fellow ( )

Assistant lecturer ( )

Lecturer ( )

Senior Lecturer ( )

Associate Professor ( )

Professor ( )

Any other, please specify _____

5. What is your highest educational qualification? (select from list)

Diploma ( )

Bachelors ( )

Degree ( )

Post Graduate Diploma ( )

Masters ( )

PhD ( )

PART 2 - TRAINING

6. Have you ever been involved in pedagogical training?

Yes ( )   No ( )

If yes, what level was your involvement?

Participant ( )   Trainer ()

7. Have you ever been involved in curriculum development at your institution? Yes ( )   No ( )

    If yes, please give the details of the curriculum development process you were

    involved in.

_____

_____

_____

8. Have you ever done any peer-level training?

Yes ( )   No ( )

    If yes, please describe what exactly you were doing:

    _____

    _____

    _____

9. As a teacher trainer, specify what views you have on the ongoing curriculum reforms

_____

_____

10. What efforts has your institution made to align your programmes to the Competency Based Curriculum (CBC)?

_____

_____

_____

11. Have you received any training related to the Competency Based Curriculum (CBC)?

Yes ( )   No ( )

If Yes,

a) What was the nature of the training?_____

b) What was covered in the training? _____

12. List at least three relevant things you as a teacher trainer wishes to be trained in

    regarding CBC

    a) _____

    b) _____

    c) _____

13. What has your institution done to adequately support students for the national roll-out of the CBC?

    a) Availing resources for technological support ( )

b) Revision of Curriculum ( )

c) Training of lecturers ( )

d) Incorporation of e-learning ( )

e) None of the above

f) Any Other, please specify

Explain your choice(s)

_____
_____
_____

14. Which of the following digital tools are you currently using in your work?
    a) Social media tools, such as Facebook, Instagram, twitter…
    b) Digital white board tools (e.g. Padlet, Flinga, Miro, others…)
    c) Tools for collaborative team work (Teams, Zoom, Skype, Kenet, others….)
    d) Tools for sharing documentation (Google Drive, MS Office OneDrive, MIRO, others….)
    e) Communication tools (Skype, Zoom, MS Office Teams, Google Hangout, others…)
    f) Mindmap tools (Mindly, Popplet, MindMap, CmapTool, others…)
    g) Any other please specify_____

15. What Learning Management System (LMS) is your institution using currently?
    a) Moodle
    b) Blackboard
    c) Google Classroom
    d) Others, please specify: _____
    e) We are not using any LMS

16. What are the essential pedagogical skills that you and Teacher Trainee students would need to learn in order to deliver courses online?

_____
_____
_____

17. What are the essential technical skills that you and the Teacher Trainee students would need to learn in order to deliver courses online?

_____
_____
_____

18. What 21st Century skills do you consider the most important for student teachers for the labour market?

    a) Creativity and innovation

b) Critical thinking
c) Collaboration
d) Use of technology
e) Information Literacy
f) Perseverance/Determination
g) Entrepreneurial skills
h) Other, please specify_____

19. Give suggestions on how universities would enhance effective transition from the 8.4.4 education system to the CBC.

_____
_____
_____

20. In your opinion, how could teacher education be reformed for successful implementation of the CBC?

_____
_____
_____

21. a) Have you read the Basic Education Curriculum Framework (BECF)? Yes ( ) No ( )

   b) According to your understanding, what is the essential aspect of BECF?

   c) In your opinion, what is the most significant challenge of the BECF?

   _____
   _____
   _____

22. What is your role as a Teacher Trainer in the implementation of the BECF?

_____

23. What do you understand by inquiry-based learning?

_____

24. How are you preparing your students to support inquiry-based learning?

_____
_____
_____

25. Please state what you require in order to successfully implement;

   a) Value based education (e.g. peer support, training manuals, sample activities, values alignment) _____

b) Community service learning (e.g. structuring service learning, grading service learning, support, sample service learning sites)_____

c) Parental empowerment and engagement programmes? (e.g. parental programmes, training materials, sample activities) _____

d) Formative and summative assessments (preparing, monitoring and reporting)_____

26. In your opinion, what is the relevance of ICT in the rollout of the Competency Based Curriculum? (design of learning materials and assessment)

_____

_____

_____

27. To what extent has the CBC assisted you in assessment of learners with special needs?
_____

_____

_____

28. Please provide any additional information on the Survey that has not been captured above.

_____

_____

_____

THANK YOU FOR RESPONDING. YOUR RESPONSE WILL GIVE VALUABLE CONTRIBUTION TO THE CONTENT OF THE TRAINING.

CONSENT FORM

We hope to be able to use the answers to this questionnaire in the research study of learning and teaching. Strict confidentiality will be followed in the treatment and reporting of the data so that individual respondents cannot be identified from the research reports.

I give the permission to use my answers in the research study of learning and teaching.

Yes ( )   No ( )

Appendix 3:   Sample of invitation letter to participants

Training Trainers for Teacher Education and Management in Kenya

P.O. Box 195-80108	**Tel: 041-7525100/1/2/4**
Kilifi	**Cell: 0722756036/0722310522**
KENYA	**E-mail: ngombesa@gmail.com**
	j.kwena@pu.ac.ke
	Website: https://www.oph.fi/en/projects/totemk

YOUR REF:

OUR REF: PI/TOTEMK/VOL. 1/120   **Date:** ……………………..

………………………….
……………………………
……………………………..
…………………..

Dear ……………………….

**SUBJECT: PARTICIPATION IN THE BASELINE SURVEY FOR THE TOTEMK
                        PROJECT**

The Finnish Government is funding a project where three universities in Kenya and two in Finland will be working in partnership.

The project, *"Training Trainers for Teacher Education and Management in Kenya (TOTEMK)"* aims at reorienting teachers to become competent to support the implementation of the Competency-Based Curriculum (CBC) in Kenyan schools and elsewhere in the globe.

The specific outcome of the TOTEMK project is an increased number of Teacher Trainers in Kenyan universities that are very conversant with the CBC content so as to increase the number of teachers that are competent to support the implementation of the CBC at the different levels of education in Kenya. In this way, the project will contribute towards a reformed Higher Education (HE) curriculum that will be in tandem with the CBC. This will ultimately prepare learners with knowledge and requisite skills to address the current and future educational needs and of the labour market.

The first step of the project is to conduct a baseline survey that will include a sample of 20 universities drawn from universities in Kenya that are accredited to offer programmes in

Education.

Your institution has identified you as one of the participants. The survey will be conducted online due to the COVID-19 pandemic. Instructions on how to access the survey tool are provided to you through your email address provided to us by our contact at your institution.

Kindly follow the link provided in the email message forwarding this letter, and complete the tool within one week from the date of this letter.

Thank you for your prompt response.

Yours sincerely

PROF. HELEN O. MONDOH, PhD
PRINCIPAL INVESTIGATOR FOR PWANI UNIVERSITY, TOTEMK PROJECT