

Implementation of Competence-Based Curriculum for Kinyarwanda Subject at IPRC Karongi Technical Secondary School, Rwanda

Alphonse Nteziyaremye¹

Alphonse Ndizeye²

Jean de Dieu Murenzi³

¹ntezalphonse1981@gmail.com (+250788654222)

²alphandi80@gmail.com (+25088698726)

³murenzijd23@gmail.com (+250788529093)

^{1,2}Rwanda Polytechnic/IPRC Karongi, Rwanda, ³University of Gitwe, Rwanda

ABSTRACT

In 2015, the thirteenth resolution of the Rwanda National Dialogues Council concluded that Rwanda should implement strategies for promoting the Kinyarwanda language and the values of Rwandan culture at all levels of education. The National Constitution of 2003, revised in 2015, stipulates Kinyarwanda as both the national and official language, a status this resolution aims to reinforce. This study was conducted to analyze the best practices and challenges encountered by trainees and trainers during the implementation of Kinyarwanda Competence-Based Curriculum (CBC) at the school under study, and to provide suggestions to mitigate these challenges. Two theories, namely constructivism and curriculum implementation theories, guided the conduct of the study. To address the identified research questions, the researchers employed a descriptive research design, conducting both quantitative and qualitative analyses of the collected data, which included both numerical and non-numerical information. The researchers used a questionnaire to collect data from both trainers and trainees. The study's key findings underscore the need to encourage certain best practices, including motivated learners and qualified and experienced trainers. However, some challenges persist in implementing Kinyarwanda CBC at IPRC Karongi/Technical Secondary Schools (TSS), such as the lack of specific training for Kinyarwanda trainers, the insufficient weekly timetable for Kinyarwanda subjects, and the lack of useful teaching and learning resources. Lastly, as recommendations of this study, trainees, should maximize their efforts in writing and speaking Kinyarwanda, trainers, on the other side, should increase their efforts in practicing CBT/CBA approaches, parents are urged to be role models and encourage their children to use Kinyarwanda language effectively, the school is should provide enough time for Kinyarwanda readings as well motivating trainees who participate in competitions of Kinyarwanda language whereas the decision makers in education are advised to carefully select and employ the qualified trainers, increase the weekly time allocated for teaching Kinyarwanda subject, improve the preparation and implementation of comprehensive assessments.

Keywords: Competence-Based Assessment (CBA), Competence-Based Curriculum (CBC), Competence-Based Training (CBT), IPRC Karongi/TSS, Kinyarwanda Subject, Trainer

I. INTRODUCTION

Kinyarwanda is both a national and official language in Rwanda. Additionally, the thirteenth resolution of the thirteenth National Dialogues Council of 2015 concluded that all schools should establish strategies for promoting the Kinyarwanda language and the values of Rwandan culture, and secondary schools and higher learning institutions should continue to teach both the Kinyarwanda language and the values of Rwandan culture (Government of Rwanda, 2015b). Due to the bilateral role of Kinyarwanda in the country, we wanted to analyze the extent to which Technical and Vocational Education and Training (TVET) schools contribute to the development of that language in this study.

Technical and vocational education and training (TVET) is considered an essential tool for Rwanda's long-term economic development, like in many other countries around the world. This is based on the fact that, unlike other types of education, TVET aims to develop both fundamental practical and applied skills as well as basic scientific knowledge for the country's development (Okoye & Ofonmbuk, 2015). In its Vision 2050 and other strategic plans for development, Rwanda aims at becoming a middle-income country. Some of the other plans and economic development strategies (Nteziyaremye et al., 2022) include the Economic Development and Poverty Reduction Strategy (EDPRS) I and II, the National Investment Strategy, the Government's seven-year programs, the Education Sector Policy (ESP), 2003, and the Education Sector Strategic Plan (ESSP) 2006–2010, 2006, and the National

Employment Policy of Rwanda. Some international development objectives, such as the Millennium Development Goals (MDGs), Sustainable Development Goals (SDGs), and international recommendations and experiences, also highlight the importance of TVET. In all of those plans, one of the government's fundamental pillars is human resource development and a knowledge-based economy.

According to Nizeyimana (2016), TVET became one of Rwanda's government's priorities in the above context. In 2009, the government established the Workforce Development Authority (WDA) to regulate and promote the TVET system in Rwanda (Primature, 2009). In 2017, Rwanda Polytechnic (RP) assumed the responsibilities of the Workforce Development Authority (WDA) for curriculum development and teaching (Primature, 2017). Currently, after the restructuring of most Rwandan public institutions that happened in 2020, it is the Rwanda TVET Board (RTB) that is in charge of all TVET schools from level one to level five (L1–L5) (Government of Rwanda, 2020). According to Nteziyaremye et al. (2022), these schools include short courses (Level 1 and Level 2) as well as levels 3, 4, and 5, which are equivalent to the advanced level of secondary school in general education in Rwanda. RTB manages all those schools (level 1 to level 5) through 365 TVET secondary schools (Government of Rwanda, 2020), which include vocational training centers (VTCs) and technical secondary schools (TSS) (Nizeyimana, 2016). Additionally, this study includes 4 Integrated Polytechnic Regional Colleges (IPRCs), including IPRC Karongi/TSS. The other three IPRCs are IPRC Kigali, IPRC Ngoma, and IPRC Huye.

For students who prioritize their educational flexibility due to employment or family obligations, competency-based education is particularly appealing (Katie & Matthew, 2015). Competency-based models, in contrast to traditional teaching approaches that require a lengthy semester of study, award credit for learning, not for the duration of class time. A learner is allowed to advance to the following set of skills as soon as they can demonstrate mastery of the previous level (Katie & Matthew, 2015). Therefore, as competency-based curriculum (CBC) is still a new trend in Rwandan education, it might be challenging either on the side of the teachers, on the side of the learners, or on both sides. Teachers may face this challenge due to their familiarity with traditional teaching methods, which required students to complete a series of programs within a set timeframe before progressing to a higher level.

Given the contextual nature of most practices and challenges within the system, this study aims to explore the implementation of the Kinyarwanda competence-based curriculum in TVET secondary school at IPRC Karongi/TSS, a location where two researchers work. The main purpose of the study is to identify the best practices at the school under study, understand the challenges faced by teachers and students who are the main implementers of the curriculum (Loflin, 2016), and provide recommendations to the relevant parties involved in this process.

According to Nteziyaremye et al. (2022), Rwanda has found technical and vocational education and training (TVET) to be one of the most successful human resources improvement procedures for preparing and recharging specialized staff for national development. Since its development in 2008, the government has endeavored to expand the TVET and attract domestic and foreign investments so as to create a competent workforce. Since then, TVET initiatives and projects have grown, and various key stakeholders have been involved. Observing that the majority of national and international development plans and/or strategies consistently emphasize the importance of TVET schools and draw from their own experiences in the TVET education system, the researchers were inspired to conduct this research for various purposes.

1.1 Problem Statement

From 2015, Rwanda shifted from a knowledge-based curriculum to the CBC. The major objective for that was to enable school graduates to deal with the labor market requirements (Rwanda Education Board [REB], 2015) and to be able to persist to the challenges that they could meet (Nsengimana, 2021). From the researchers' knowledge, no research was done on the implementation of CBC for Kinyarwanda subject, particularly, in the field of TVET schools.

In order to fill the above-identified niche, the current study was thought of. The fact that numerous researches have been conducted to assess the implementation of CBC in teaching different school subjects including languages at both the international and national level, could, unfortunately, not hinder the need for this study to be conducted in order to identify the best practices with factors that act as challenges of implementing the identified curriculum. It will, therefore, inform some stakeholders in education about the implementation of competency-based curriculum for Kinyarwanda subject in Rwandan Technical Secondary Schools, their strengths and weaknesses in order to identify where they can specifically put emphasis, and function as a reference to other researchers in this domain. This research will also raise the awareness of TVET school managers and teachers about the appropriate teaching and assessment methods in order to ensure the quality of training in Kinyarwanda subject. Finally, the recommendations from the study are shared with different stakeholders to enrich the implementation of competence-based curriculum for Kinyarwanda subject in Rwandan TSS.

1.2 Research Objectives

- (i) Examine the best practices in implementation of CBC for Kinyarwanda subject in Technical Secondary Schools;
- (ii) Identify challenges faced by both trainers and trainees during the implementation of CBC for Kinyarwanda subject in Technical Secondary Schools;
- (iii) Suggest what can be done to overcome the challenges presented by both trainers and trainees in relation with the implementation of CBC for Kinyarwanda subject in TVET secondary schools.

II. LITERATURE REVIEW

2.1 Theoretical Review

The current study is mainly guided by two theories: constructivism theory and curriculum implementation theory.

2.1.1. Constructivism

According to Brau, (2020), Jean Piaget, one among the main theorists in constructivism, indicates that human beings create knowledge throughout interaction between their own experiences and ideas. His point of view is the mother of the radical constructivism due to his idea that the person is the center of the knowledge creation and learning process.

Constructivism is a learner-centered thinking that stresses hands on learning and the trainees being active in their acquisition. The theorists trust that learners should be able to personally find out lessons through practical activities considered as the true and effective learning strategy (Ganly, 2012). In the same context, Competence-Based Training (CBT), introduced in Rwandan TVET Schools, is an approach to Technical and Vocational Education and Training that places emphasis on what a person can do in the workplace as a result of completing a program of training. It is designed to enable a learner to illustrate their capacity to do something as result of the training. Competence-Based Training/Facilitation measures if a learner is competent or not (Rwanda TVET Trainer Institute [RTTI], 2021a). As a result, the introduction of CBT in Rwandan TVET schools emphasizes that every trainer should use the learner-centered methods.

During the acquisition process, the student is supposed to reflect on the content being delivered and build upon an interpretation. Next to that interpretation, the learner is expected to think about the new knowledge. According to the nature of constructivism, the trainer should adjust a more hands-on method instead of the old lecturing one. The classroom environment must be encouraging a continuous change and caring each learner's intellectual capacity (Brau, 2020). Hence, in CBC implementation, each trainer is supposed to behave like a facilitator instead of being a teacher in his/her class (Rhodes and Bellamy, 1999). This implies that the philosophy behind CBT/CBA introduced in TVET schools is that the trainee must be central in each learning and teaching process by being guided during the process.

2.1.2 Curriculum Implementation Theory

This research is also based on the theory of curriculum implementation established by Gross et al. (1971). The current theory highlights that for any effective curriculum implementation, the teacher's awareness must be considered. In addition, when the teacher is not well informed about the in curriculum change, its implementation might not be successful. That is to say that for any curriculum implementation to be successful, the teacher must be aware and have positive attitudes towards that curriculum and its major changes (Nsengimana, 2021).

2.2 Empirical Review

In this regard, different concepts relating to competence-based curriculum were explained. Specifically, this study discusses competence-based curriculum in Rwanda, competence-based curriculum in Rwandan TVET context together with implementation of competence-based training (CBT) and competence based assessment (CBA) for Kinyarwanda at IPRC Karongi/TSS. Additionally, the researchers tried to summarize some previous researches related to the curriculum implementation: best practices and challenges as they are, specifically, related to the current study.

In 2015, Rwanda changed a knowledge-based curriculum to a competence-based curriculum (CBC) (Ndiokubwayo and Habiaryemye, 2018). The competence-based curriculum has been implemented in Rwandan primary and secondary schools since 2016/2017 school year, and being a member of the East African Community, the curriculum was designed in line with the Harmonized Curriculum Framework (Tabaro, 2018). Additionally, REB

(2015) highlights that the CBC has gained attention because it prioritizes learning that meets the demands of future job market in both in Rwanda and globally.

According to Ndiokubwayo et al. (2019), the competency-based movement was introduced in America towards the end of the 1960s due to the fact that skills learnt in schools were not the ones required in everyday life. The same situation made Rwanda to review the curriculum during 2015. Competence-based education is built on six strong gears, all of which are noticeable in the outcome-based learning. Those gears include: (i) explicit learning outcomes with respect to the required skills and standards for assessment; (ii) flexible time frame to master these skills; (iii) variety of instructional activities to facilitate learning; (iv) criterion-referenced testing of the required outcomes; (v) certification based on demonstrated learning outcomes; (vi) adaptable programs to ensure optimum learner guidance (Malan, 2000).

The introduction and implementation of the current CBC in TVET schools in Rwanda, according to Rwanda TVET Trainer Institute (RTTI, 2021b), was initiated in some piloted schools in Southern Province under supervision of WDA in 2013. Later in 2017, the CBC was implemented in all Rwandan TVET schools. In line with the CBC, Competency-Based Training/Facilitation (CBT) and Competency-Based Assessment (CBA) approaches were introduced as CBC (RTTI, 2021c).

Competency-based assessment (CBA), according to Okoye and Ofonmbuk (2015), is a process of gathering evidence of learner's performance, upon which an assessor judges whether or not, or the extent to which a learner has met the required performance of the learning outcome in a particular unit and then makes a decision based on these judgements as to whether a learner has achieved the learning outcome or not. In other words, it is the process of measuring the learner's knowledge and skills against the standard (occupational standard) laid down for a particular unit. RTTI (2021a) adds that CBA is a process where an assessor works with trainees to collect evidence of competence using the benchmarks provided by the unit standards that comprise the national qualification. It can also be referred to as an integrated possession of knowledge, skills and right attitudes required to perform a task.

The implementation of CBT & CBA in TVET schools is based on a modular system. Kinyarwanda is one of complementary modules that compose a curriculum at all levels of TVET schools (from level one to level seven) and there is no choice for trainees of Technical Secondary Schools to not learn it. In this study, three modules namely Standard Kinyarwanda (Ikinyarwanda Kiboneye) for level three, Kinyarwanda for Specific Purpose (Ikinyarwanda cy'Umunyamwuga) for level four and Advanced Professional Kinyarwanda (Ikinyarwanda k'Intyoza) for level five serve as a basis for analysis of the best practices and observable challenges during the facilitation process. Therefore, Kinyarwanda subject is learned by all learners of TVET Schools and assessed from level 3 to level 5, where this study focuses.

2.2.1 Best Practice in Curriculum Implementation

The results of the research conducted by Venuste Nsengimana about the implementation of CBC in Rwanda introduced in 2015 found it positive (Nsengimana, 2021). Among the existing best practices that researchers highlight, we can state the focus on the learner's skills development, attitudes and values; improvement of the quality of learning, and shifts from memorization to the practical activities; developing individual capacity of learners and linking social values with the subject-content and the labor market and helping to achieve the goals of the Government of Rwanda aiming at producing skilled students, able to create and compete for jobs in the world of work (Nsengimana, 2021 and REB, 2015). (Nsengimana, 2021) adds that in the implementation of the CBC, teachers could consider the students' experiences throughout their lesson planning, appropriate classroom arrangement to facilitate the interactions among learners as well as authorizing learners to work at their own pace in spite of the taken time to acquire new concepts throughout the group discussions.

Combalicer (2016) in her study proved that the majority of teachers who contributed to her research had the required degrees in education and were experience enough in their field of education. This implies that they were confident enough to successfully implement the curriculum provided in their field of education. She also added that those teachers effectively plan and simplify their lessons together with varied assessment tools to attract their students' motivation and creativity among others.

2.2.2 Challenges in Curriculum Implementation

According to Pritchett (1992), the curriculum implementation, after any reform, is influenced by individual understanding, perceptions of the reasons for change, and commitment to admit the change. In Rwanda, like other developing countries, the CBC was adopted from developed countries and adjusted to the particular necessities of each individual country (Muraraneza et al., 2017). Unlike, main challenges to the implementation of new curriculum

include the lack of teaching/learning resources, laboratory equipment and chemical consumables and a less number of teachers involved during the development of the CBC (Nevenglosky et al., 2019; Nsengimana, 2021; Obilo & Sangoley, 2024).

According to variously conducted researches, only a small number of teachers are trained about the new curriculum implementation. As a result, most of the teachers could not finish the designed content at the end of the year because they had not had any training about the new curriculum (Nevenglosky et al., 2019; Nsengimana, 2021). Another barrier is that some teachers indicated that they tend not to cover the planned content because of the insufficiency of the allocated time to one lesson 40 instead of 50 minutes. This enforces them to sometimes use teacher-centered methods to cover the required content (Nsengimana, 2021; Obilo & Sangoley, 2024).

In their research, Obilo and Sangoley (2024), most illiterate parents and ignorant ones are not aware of education importance and do not offer to their children the school materials, which can encourage them learn better. In addition to the above mentioned challenges, some teachers reported the overpopulated classes, inadequate teaching/learning resources that affected teaching/learning processes (Combalicer, 2016), some content of the CBC which requires teaching/learning materials that are difficult to improvise (Combalicer, 2016; Nsengimana, 2021) as well as uncondusive school environment (Obilo & Sangoley, 2024). In the same way, (Combalicer, 2016), mentioned the lack of appropriate teaching strategies, lack appropriate technology-assisted instruction materials and ICT-related material as well as specific trainings related to effective curriculum implementation.

III. METHODOLOGY

3.1 Research design

This study used a descriptive research design to answer the identified research questions and the data were analyzed both quantitatively and qualitatively since the collected information includes some numerical and non-numerical information. It is a descriptive study because it describes the best practices and challenges observed in IPRC Karongi/TSS, and then provides recommendations basing on the findings. Lochner et al. (2015), as cited in Orodho (2003), claim that descriptive surveys are used in preliminary and exploratory studies to allow researcher to gather, summarize, present and interpret information appropriately.

3.2 Sampling and Participants

3.2.1 Total Population

The total target population of this study was 288, all of which 285 were the students and 3 trainers of IPRC Karongi/TSS. All the 3 trainers are facilitators of Kinyarwanda subject modules from level 3 up to level 5 and among the trainees 224 are boys whereas 61 are girls. All the students are from 12 classes: 4 classes per each level.

3.2.2 Sample Size and Procedure

Stratified sampling technique Mcleod (2023) was used in order to choose proportional representatives in each of 12 classes in the 3 levels. The researchers calculated 10% of the total population as a sample size among trainees. The 10% of trainees was calculated in each class and, finally, participants were chosen randomly in each class. All the 3 trainers (100%) of Kinyarwanda modules and 29 trainees were chosen and used as a sample to represent others in this research. 21 trainees are boys (72.4%) and 8 girls (27.6%) participated in this study.

3.3 Data Collection

The study used both quantitative and qualitative research methods. In this line, for collecting unambiguous data, two separate questionnaires were developed and administered to both trainers and trainees. This was done to effectively identify the best practices and challenges in implementing the competence-based curriculum for Kinyarwanda subject at IPRC Karongi/TSS. Additionally, the researchers made some documentation as another instrument for gathering secondary data from journal articles and books.

3.4 Data analysis

Collected data were statistically analyzed from the data summarized and presented in form of tables together with some discussions. In addition to that, frequencies and percentage distribution tables were used. Data that were collected from all respondents, with their consent, were kept confidentially in the sense that findings were presented without mentioning specific identification of any individual participant. Therefore, there will be no impact on individual participants.

IV. FINDINGS & DISCUSSIONS

This section presents analysis of the data collected at IPRC Karongi/TSS. Furthermore, it presents and discusses the findings of the study. The presentation of the findings reflects: (1) the best practices in implementing CBC for Kinyarwanda subject in Technical Secondary Schools; (2) the challenges faced by trainers and trainees during the implementation of CBC for Kinyarwanda subject in TSS schools; and (3) the strategies to overcome the challenges presented in relation with the implementation of CBC for Kinyarwanda subject in Technical Secondary Schools.

Table 1

Statistics of IPRC Karongi/TSS trainees in 2021-2022

Trainer	Classes	Total Students	Percentage	Sample size	Percentage
Level three (L3)	4	81	28.4%	8	27.6%
Level four (L4)	4	101	35.4%	10	34.5%
Level five (L5)	4	103	36.2%	11	37.9%
Total	12	285	100%	29	100.0%

Table 1 reveals that during 2021-2022 School Year, IPRC Karongi/TSS has trainees. It is on basis of the above statistics that we could determine the total sample size and specific sample size for each level (promotion). During the sampling process, we could round up or by default some numbers to determine the individual participants. This is how we determined 8 respondents (27.6%) in level three, 10 respondents (34.5%) in level four and 11 respondents (37.9%) in level five.

Table 2

Trainees' Nationalities

Nationality	Frequency	Percentage
Rwandan	29	100.0%
Foreigner	0	0.0%
Not willing to tell	0	0.0%
Total	29	100%

According to table 2, all student-participants (29 out of 29) are Rwandan by nationality. This factor was included so as to showcase how much the level of Kinyarwanda might be viewed at the school in relation with the number of its users among which 100% the sample size use Kinyarwanda as their mother tongue, national and official language at the same time (Government of Rwanda, 2015a). It implies that it becomes easier to communicate in the classroom interactions (Mahboob and Lin, 2019).

Table 3

Status of TVET secondary trainees (boarding/day)

Status	Frequency	Percentage
Day student	0	0.0%
Boarding student	29	100.0%
Total	29	100%

Table 3 demonstrates that all the 29 trainees (100%) who participated in the current study live in the school hostels. This is important in the sense that it can be easy to work in groups even after the class time when needed. This also implies that students get enough time to interact during the after-class assignments since they stay together at school.

Regarding the qualifications of trainers/teachers of Kinyarwanda, this research found that one among them was a holder of a master's degree; another one had a bachelor's degree while the third one held a diploma (A1). In addition to that, 2 out of 3 trainers were qualified in Kinyarwanda subject whereas 1 out of the 3 was not qualified in Kinyarwanda subject. This means that the level of education for Kinyarwanda trainers is generally good because two

of them are qualified in the field of teaching. Therefore, this implies that since most trainers are qualified in teaching Kinyarwanda, they are competent enough to analyze and interpret the relevance of the Kinyarwanda CBC.

About the Kinyarwanda TVET Trainers' experience in teaching, the data show that one among them has 3-5 years of experience in Kinyarwanda TVET training/teaching; another one has 6-10 years of experience in Kinyarwanda TVET training while the last has got above 10 years of experience in Kinyarwanda TVET training. The average of Kinyarwanda training experience among participants is 7 years, which is referred to as senior experience (above 5 years). As highlighted by Merfat (2016: 1), the most important person in the process of curriculum implementation is a teacher. With their knowledge, experiences and competencies, teachers are essential to any curriculum development and implementation effort. This is apparent because better teachers support better learning since they are most conversant about the practice of teaching and are responsible for implementation of the curriculum in the classroom. Lochner et al. (2015), add that teachers are central to whether a curriculum is delivered consistently, effectively and with efficacy to enable the support of student progress and growth. Therefore, IPRC Karongi/TSS Kinyarwanda trainers' teaching/training experience in TVET School is appreciated because it expresses their confidence in class.

In this regard, all the three Kinyarwanda trainers of IPRC Karongi/TSS who participated in the study revealed that they have been trained in CBT/CBA approach for effective implementation of CBC. As Bell (2015) evaluated the advantages and disadvantages of an English grammar curriculum; specifically, the guidance and directives provided to support teachers and found that the materials lacked pedagogical guidance to help teachers understand the lessons accurately to teach them. He highlighted how proper training played a big role in implementing the curriculum with confidence. Bell found that lack of training or guidance for curriculum hindered accurate delivery to students. Hence, the IPRC Karongi/TSS trainers who were trained on CBT/CBA expressed how confident they are in the curriculum implementation.

Even if the Kinyarwanda TVET trainers of IPRC Karongi/TSS said that they have been trained in CBT/CBA approach for effective implementation of CBC, they also proved that all lack specific trainings in facilitation of Kinyarwanda subject. This means that they have not yet received any particular training relating to Kinyarwanda CBC implementation. According to American Institute for Research (AIR, 2016), understanding the barriers to complete implementation of a new curriculum could provide education administrators with tools to address teacher concerns and could provide vital training for successful implementation. Therefore, the provision of specific training to trainers of Kinyarwanda subject would contribute a lot to their competency in analyzing, interpreting and implementing the Kinyarwanda CBC (Campos, 2023).

Table 4

Trainees' perception of Kinyarwanda subject

Perception of Kinyarwanda subject	Frequency	Percentage
Positive	28	96.6%
Negative	1	3.4%
Total	29	100%

Table 4 above demonstrates that the trainees' perception of Kinyarwanda subject is very admirable because, on one hand, 28 (96.6%) of trainees themselves pointed out that their perception of Kinyarwanda is positive. On the other hand, all the three trainers also expressed that their trainees' perception is positive. As revealed by some researchers, learning is constantly changed in behavior, which covers both external activity and internal process that external refers to the activity of observing while internal is the process of developing perceptions, thinking and emotions (Dunn, 2002). Therefore, the teaching method is important based on the students' perceptions rather than the teacher's desire in delivering to assist student's ability to understand what the teacher conveys (Dunn, 2002 and Byiringiro, 2024). In other words, the fact that the trainees' motivation in learning Kinyarwanda subject at IPRC Karongi/TSS is positive, which is a basis for successful implementation of Kinyarwanda CBC.

Table 5

Perception of the time reserved for Kinyarwanda on weekly timetable

Time reserved for Kinyarwanda subject	Frequency	Percentage
Enough	4	13.8%
Not enough	25	86.2%
Total	29	100.0%

The table 5 above reveals the perception of the trainees on the time reserved for Kinyarwanda subject per week. It is clearly presented that Kinyarwanda subject was given a very short time in the school weekly timetable as 25 (86.2%) of trainees and all their trainers who participated in this study reported. Normally, one (1) period of fifty (50) minutes per week is the time reserved for Kinyarwanda subject taught from Level 3 to Level 5 of technical secondary school. This is the reason why Kinyarwanda modules take the whole year to be covered while each one should cover only thirty (30) periods.

Table 6

Perception of Kinyarwanda trainers' facilitation methods

Facilitation method	Frequency	Percentage
Learner/Trainee plays a big role in lesson (learner-centered)	23	79.3%
Facilitator/Trainer takes a lot of time in the lesson (teacher-centered)	6	20.7%
Trainer and trainees take an equal time in the lesson/session	0	0.0%
Total	29	100.0%

The teachers' roles continue to determine the success or failure of a curriculum (Loflin, 2016; Combalicer, 2016 and Nsengimana, 2021)). As the above table 6 shows, 23 (79.3%) of the responded trainees also consider the facilitation method used by their trainers as being learner-centered while 6 (21.7%) among trainees consider that method as teacher-centered. On the side of trainers, it all the three Kinyarwanda trainers proved that they use learner-centered method during their session/lesson facilitation in Kinyarwanda subject. In contrast to teacher-centered approach, the first method is likely to impact positively on the implementation of CBC since it engages students as leaders and decision-makers to develop their critical thinking (Campos, 2023). It also empowers the students to take ownership of what their learning by focusing on how the acquired knowledge brings a solution to existing problems or adds values. Students develop independent learning and become responsible only when they are given various opportunities to exercise learning and responsibility skills and consistently receive formative feedback to help them improve (Blumberg, 2009).

Because competency assessments are used to determine mastery and award credit, the value of CBE credentials hinges on the reliability and validity of those assessments. Assessment quality has been an important research topic for as long as CBE programs have existed (Katie & Matthew, 2015). In relation to this, all the 3 Kinyarwanda trainers of IPRC Karongi/TSS revealed that they commonly use formative and summative assessment types of assessment. With the above regard, an assessment is not only a final stage in education process, but also it should be integrated in the process in order to be able to provide the necessary feed-back to trainees and trainers to improve their activity throughout the educational process. Particularly, Formative assessment offers appropriate information about the learning style and speed of trainees, being oriented to meeting the students' needs (Stăncescu & Drăghicescu, 2017) while the summative assessment comes towards the course end to help making final decisions about the learners (RTB, 2021).

According to Xavier (2016), the term "comprehensive" refers notably to the comprehensive schools in the United Kingdom, which are multipurpose establishments ensuring continuity between primary and secondary and which are open to all categories of learners. The collected data show the views of Kinyarwanda trainers versus comprehensive assessment prepared and administered by NESA in general education (from P1 to S6) and TVET secondary schools (from Level 3 to Level 5) at the end of every year. The first shared view, according to all trainers, is that sometimes NESA includes the content not related to Kinyarwanda curriculum. The next views from 2 trainers state that probably Kinyarwanda comprehensive assessments are prepared by non-qualified trainers in the subject and that comprehensive assessment is against CBT/CBA assessment guidelines. The last view from one trainer is that comprehensive assessment functions as a guide for improving teaching and assessment methods for trainers. This means that if the assessment/test is prepared by a non-qualified person, which is likely to be non-reliable in the sense that it probably does not measure what it is supposed to measure. Therefore, the test/assessment cannot be valid since its standards are questionable.

Table 7*Availability of Kinyarwanda Textbooks at IPRC Karongi/TSS*

Availability of teaching resources	Frequency	Percentage
Enough Kinyarwanda books are available	0	0.0%
Some old Kinyarwanda books are available	0	0.0%
No book is available, the trainer is responsible for collecting all needed materials	29	100.0%
Total	29	100.0%

The table 7 reveals that all trainees (100%) who participated in this study mentioned that there are no textbooks for Kinyarwanda subject at their school. All the three trainers, on the other hand, also shared their views which are similar to the trainees' one. This means that training/facilitation relies on the trainers' personal notes. However, Attakumah and Tulasi (2015) established that there was a strong positive connection between textbook availability and academic achievement of public senior high schools. They thus recommended that stakeholders, especially parents and education services work to regularly supply textbooks to the schools.

Table 8*Needed Kinyarwanda Teaching-Learning Materials*

Teaching-learning materials	Trainers	Trainees
Trainer's guide	√	X
Trainee's textbooks	√	√
Novel and short stories	√	√
Audio-visual materials	√	√
Kinyarwanda dictionaries	√	√
Other printed materials (poems, narratives, grammar books, etc.)	√	√

Table 8 shows all the needed teaching-learning resources for better facilitation of Kinyarwanda subject in technical secondary school. Commonly needed resources for both trainers and trainees include trainee's textbooks, novel and short stories, audio-visual materials, Kinyarwanda dictionaries and other printed materials like poems, narratives, grammar books, etc. A special resource needed by trainers themselves is the trainer's guide. Thus, if accessible, those teaching-learning resources will enhance the facilitation of Kinyarwanda subject and saving time for other activities (Campos, 2023).

Table 9*Commonly Appreciated Practices in Relation to Kinyarwanda Subject*

Commonly appreciated practices	Trainers' view	Trainees' view
The class is medium in size	√	X
All trainees stay at school (boarding students)	√	√
Using learner-centered method in facilitation of Kinyarwanda sessions	√	√
School administrative staff encourages trainees to participate in all subject at the same level	√	X
Trainers and administrative staff motivate learners to attend national competitions related to Kinyarwanda language	X	√
The majority of trainers were trained in CBT/CBA approaches by Rwanda TVET Trainer Institute (RTTI)	√	X
Most of trainees like and succeed well in different Kinyarwanda assessments	√	√

The above table 9 presents the commonly appreciated practices related to Kinyarwanda subject. Both trainers and trainees commonly shared their views that all trainees of IPRC Karongi/TSS stay at school (boarding students), trainers use learner-centered method in facilitation of Kinyarwanda sessions, and most of trainees like and succeed well in different Kinyarwanda assessments. Particularly, trainers revealed that there is no over-population in IPRC Karongi/TSS because the number of trainees varies between 18-28 per one classroom while trainees, on the other hand, expressed that their trainers and administrative staff motivate them to attend national competitions related to Kinyarwanda language.

Even though, some best practices have been identified in terms of Kinyarwanda CBC implementation, weekly time allocated to Kinyarwanda subject, non-availability of teaching/learning resources, lack of stakeholders' motivation and the lack of specific trainings in Kinyarwanda facilitation are among the factors that negatively affect the implementation on Kinyarwanda CBC in the school under this study.

First and foremost, a short time (50 minutes) allocated to Kinyarwanda in the weekly timetable is a burden as both trainers and trainees expressed that they need more time for practical areas of the content. This implies that the learners are basically out of luck because teachers have to use a fast pace to meet the predetermined curricular schedules which eventually impede effective classroom practices (Anyiendah, 2017). As a result, this may diminish the learners' motivation as they always tend to rush behind their trainers who pretend to run fast to meet the program requirements.

Secondly, as far as resources are considered, both trainers and trainees who participated in this research expressed the lack of some basic learning resources. Among those resources, the mentioned textbooks and others. This reveals that the pupil/textbook proportion is a key measurement for effective teaching because students heavily rely on text books in their learning process. This is the same situation with TVET secondary trainees who have no trainee's textbooks whereby they only rely on the trainers' notes that, on the other hand has no trainer's guide as revealed in the findings. Therefore, in a constrained textbook environment, it is difficult for a teacher to implement effective practices (Anyiendah, 2017). Other identified missing resources related to better implementation of Kinyarwanda CBC include dictionaries, audio-visual aids, dictionaries, grammar books as well others that can help trainees improve their language learning practices.

Thirdly, as far as motivation is concerned, the better implementation of Kinyarwanda CBC requires the active participation of different stakeholders in the system. Unlike, Njogu (2008), as explained in Anyiendah (2017), points out that most parents from disadvantaged socio-economic conditions are preoccupied with challenges of trying to make ends meet, leaving too little room for supporting their learners at home. Based on those conditions, effective teaching of learners can be quite challenging to the teachers. Therefore, not only parents' motivation lacks in this process of teaching-learning, but also other stakeholders like MINEDUC, private sectors and NGOs do not maximize their effort in motivating and funding TVET system in Rwanda.

Fourthly, trainers pointed that they don't always consider the process of preparing and conducting comprehensive assessments provided by NESA at the end of every year/level as being positive. This is due to the fact that they mostly find unrelated content in such assessments and assume that they are probably set by non-qualified/experience trainers in Kinyarwanda subject for TVET schools.

At last, as the CBC requires learner-centered approaches and strategies, all education agents especially teachers should have been sufficiently trained and equipped with large amount of knowledge and skills that might help them in the positive and successful implementation of competence-based curriculum (Mugisha, 2017). Unlike, all participant-trainers who were trained on CBT/CBA approaches used in TVET in general, they all lack specific skills in facilitation of Kinyarwanda subject.

Table 10*Suggestions for better Implementation of Kinyarwanda CBC in TSS*

Suggestions	Trainers	Trainees
Trainees should increase their effort in writing and speaking effectively Kinyarwanda	√	√
Trainers should increase their effort to implement learner-centered method in all their session facilitations	√	√
Parents should always explain the importance of Kinyarwanda language to their children and encourage them to use it effectively in both writing and speaking	√	√
The school should provide particular time for readings in the school library on the school timetable	√	X
The school should plan and conduct competitions on reading, writing and speaking Kinyarwanda effectively	√	√
The school should provide rewards to trainees and trainers who actively participate in different competitions of Kinyarwanda language as a mother tongue	X	√
Rwanda TVET Board (RTB) should recruit qualified trainers for Kinyarwanda subject, organize and conduct specific trainings for them on effective implementation of Kinyarwanda CBC	√	X
Rwanda TVET Board (RTB) should avail all teaching and learning materials for Kinyarwanda subject at school level in order to ease the facilitation process (as Rwanda Education Board does for general education schools)	√	√
NESA should carefully select qualified and experienced TVET trainers during the preparation of comprehensive examinations	√	X
NESA should organize a consultative meeting with RTB and CBT/CBA experienced trainers about how to smoothly plan and conduct comprehensive assessments in Technical Secondary Schools.	√	X
The Ministry of Education (MINEDUC) should provide more time for Kinyarwanda subject on TVET secondary school weekly timetable	√	√
Stakeholders in TVET education (public institutions, private sector and NGOs) should provide needed funds for conducting trainings on effective implementation of Kinyarwanda CBC to all concerned trainers and provide funds for planned competitions in Kinyarwanda language.	√	X

Table 10 above presents the key suggestions of trainers and trainees for a better implementation of Kinyarwanda CBC in Technical Secondary Schools. Both trainers and their trainees suggest that trainees should increase their effort in writing and speaking effectively Kinyarwanda language, trainers should increase their effort to implement learner-centered method in all their session facilitations, parents should always explain the importance of Kinyarwanda language to their children and encourage them to use it effectively in both writing and speaking, the schools should plan and conduct competitions on reading, writing and speaking Kinyarwanda effectively, Rwanda TVET Board (RTB) should avail all teaching and learning materials for Kinyarwanda subject at school level in order to ease the facilitation process (Campos, 2023), as REB does for general education schools, MINEDUC should provide more time for Kinyarwanda subject on technical secondary school's weekly timetable.

Particularly, trainers suggest that the schools should provide particular time for readings in the school library on the school timetable; RTB should recruit qualified trainers for Kinyarwanda subject, organize and conduct specific trainings for them on effective implementation of Kinyarwanda CBC: NESA should carefully select qualified and experienced TVET trainers during the preparation of comprehensive examinations, and organize a consultative meeting with RTB and CBT/CBA experienced trainers about how to smoothly plan and conduct comprehensive assessments in Technical Secondary Schools; stakeholders in TVET education such as public institutions, private sector and NGOs should provide needed funds for conducting trainings on effective implementation of Kinyarwanda CBC to all concerned trainers and provide funds for planned competitions in Kinyarwanda language. Trainees, on the other hand, suggest that the school should provide rewards to trainees and trainers who actively participate in different competitions of Kinyarwanda language as a mother tongue (Mahboob & Lin, 2019).

As far as the objectives are concerned, this study intended to firstly examine the best practices in implementation of CBC for Kinyarwanda subject in Technical Secondary Schools. Secondly, it intended to identify challenges faced by both trainers and trainees during the implementation of CBC for Kinyarwanda subject in Technical Secondary Schools. Finally, it intended to suggest a way forward to overcome identified the challenges presented in relation with the implementation of CBC for Kinyarwanda subject in Technical Secondary Schools.

For a better analysis of data, the data were collected basing on aspects such as learner's motivation, teacher's capacity, parent's participation, class size, teaching/learning resources and others that can affect the facilitation

process. According to the above findings, we identified that some factors impact positively on the implementation of Kinyarwanda CBC while others have a negative impact on it in this study. Factors that are determined to have positive impact fall into the category of best practices and should be retained while those that affect negatively the teaching/learning process are categorized as challenges to the process and, therefore, need improvement.

4.1 Best Practices in Implementing Kinyarwanda CBC

Based on the collected data, we have found that learner's motivation, teacher's capacity and class size are the key factors that contribute to the better implementation of Kinyarwanda CBC at IPRC Karongi/TSS.

Firstly, the teacher is the most important agent in any educational reform, particularly in one that touches on what goes on in the classrooms (Mundy, 2008). This goes in line with the above results which show that Kinyarwanda trainers who participated in the study are generally qualified in the subject area with a good experience and training on CBT/CBA approaches to CBC implementation in TVET schools. Therefore, this might be in relation with the success of trainees in Kinyarwanda subject expressed by both trainees and their trainers since their trainers used the learner-centered methods in facilitation and assessment.

Secondly, considering the trainees' motivation, the results reveal that it is very good in Kinyarwanda subject. Contrary to that, there would be a negative effect to their success if their motivation was low. It is only when this attitude is changed that substantial learning will take place (Anyiendah, 2017). Consequently, because the trainees' attitude in learning Kinyarwanda is positive, it is the reason why they perform well in that subject.

Next, the class size was found to be very good because the smallest class possesses 18 trainees while the biggest has 28. Compared to the average of class size of 45-60 learners (Guverinoma y'u Rwanda, 2021), it is easy to monitor and evaluate the class of the same size.

Finally, the fact that all trainees stay at school as boarding students is also another best practice due to the fact that monitoring them becomes easier since they share the daily life.

4.2 Challenges in Implementing Kinyarwanda CBC

As presented in the findings, however, the teacher's training and innovative skills are a necessary but not sufficient condition for effective learning. Thus, there are other prevailing conditions that pose a challenge to the teacher hence impeding learning (Anyiendah, 2017). In line with this researcher, it has been identified that weekly time allocated to Kinyarwanda subject, non-availability of teaching/learning resources, lack of stakeholders' motivation and the lack of specific trainings in Kinyarwanda facilitation are among the factors that negatively affect the implementation on Kinyarwanda CBC in the school under this study as discussed earlier.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

This paper attempted to illustrate the best practices and challenges realized in implementation of the Kinyarwanda competence-based curriculum for TVET Secondary School at IPRC Karongi setting. It analyzed and found out some best practices at the school under which it was conducted. In addition to that, some challenges that affect the implementation of Kinyarwanda subject in line with CBC approach were identified and suggested some solutions to the identified challenges. Therefore, its results could be generalized to all Rwandan TVET Secondary Schools with the similar setting, whereby Kinyarwanda competence-based curriculum is implemented. Additionally, the results prove that trainees were highly motivated in learning Kinyarwanda subject not only because it is their mother tongue, but also because they need the language for their daily survival in both the school and in everyday life.

5.2 Recommendations

Basing on the research findings which highlight some challenges faced by trainers and trainees at IPRC Karongi/TSS, key recommendations for improving the implementation of Kinyarwanda CBC subject in TVET secondary schools were suggested. Recommendations to different stakeholders in TVET Education system have been given while at the same time showing what the recommendations imply if put into consideration.

Trainees, on one side, should increase their effort in writing and speaking Kinyarwanda effectively as the frequent and deliberate use of sub-standard words and expressions would affect the quality of Kinyarwanda language whereas trainers, on the other side, should increase their effort in practicing CBT/CBA approaches such as providing enough time to trainees in all their session facilitations so as to help them develop their critical thinking level and leadership skills.

Parents are urged to always be exemplary and explain the importance of Kinyarwanda language to their children and encourage them to use it effectively in both writing and speaking as the children always consider them as their role models.

The school is recommended to provide appropriate time on the school activities for readings in the school library for helping trainees to get enough time for making their own researches. It should plan and conduct competitions on writing and speaking Kinyarwanda as well as reward trainees who actively participate in different competitions of Kinyarwanda language in order to motivate them to continue and attract others.

Rwanda TVET Board (RTB) should recruit qualified trainers for Kinyarwanda subject, organize and conduct specific trainings for them on effective implementation of Kinyarwanda CBC to ensure that all trainers are capable to effectively implement CBT/CBA in their respective classes. It also advised to avail all teaching and learning materials for Kinyarwanda subject at school level in order to ease the facilitation process.

NESA should carefully select qualified and experienced TVET trainers during the preparation of comprehensive examinations of all subjects in order to ensure their validity and reliability.

The Ministry of Education (MINEDUC) should provide more time for Kinyarwanda subject on TSS weekly timetable for better facilitation and practice of CBT/CBA approaches. It should also organize more Kinyarwanda language competitions and effective rewards to competent participants as a motivator.

For effectively conducting trainings on effective implementation of Kinyarwanda CBC to all concerned trainers and for planned necessary competitions in Kinyarwanda language, stakeholders in education such as public institutions, private sector and NGOs are urged to provide needed funds.

RTB which has adopted competence-based curriculum to be implemented in all TVET secondary schools should provide the teaching materials that reflect active participation of the learners. Library and laboratories should be strengthened with enough books apparatus so that every learner accesses freely the learning resources (Mugisha, 2017). For this reason, one of the national priorities in Rwandan education system is to ensure that education quality continues to improve through closer integration of curriculum development, quality assurance and assessment, improved supply of learning materials, particularly textbooks, and improved teaching and learning strategies (REB, 2015).

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