IMPLEMENTATION, UTILIZATION, AND EFFECTS OF RADIO-BASED INSTRUCTION TOWARDS THE ACADEMIC PERFORMANCE OF GRADE 7 STUDENTS: BASIS FOR A PROPOSED RADIO-BASED EDUCATION ON THE GO PROGRAM

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Abstract:

This study sought to determine the implementation, utilization, and effects of Radio-based Instruction on learners' learning performance in Maitum, Sarangani Province, for School Year 2021-2022. A quantitative, cross-sectional research methodology was utilized in this study. The respondents of this study were 30 teachers and 243 learners from 3 schools namely: Malalag National High School, Maguling National High School, and Perrett Central Integrated School. The study's findings revealed that the level of implementation of Radio-Based Instruction in the Maitum District was very high in Planning and Agreement, high in Information Dissemination and Feedback, Organization and Analysis, and Monitoring and Evaluation, while moderate in Budgeting and Materials. The level of Utilization of Radio-Based Instruction in Maitum, Sarangani Province, was moderate in the Background of RBI and Ratio between Learners and Materials and high in RBI Production Utilization. While the academic performance of Grade 7 learners was in School A, they had fair academic performance, which is 6 out of 13 or 46% were fair. In-School B, 32 out of 68, or 42%, were good in their academic performance. School C was also good at 85 out of 162 or 53%.

Keywords: educational management, learners, Radio-Based Instruction, academic performance, Philippines

1. Introduction

Distance learning is an alternative to face-to-face classes and is a new step for the Department of Education. The Department has settled on alternative modalities to continue education amidst the pandemic threat. Radio-based Instruction is one alternative that the DepEd offered in the hope of continuing the learning process of the learners even at their homes. However, there are numerous opportunities to stray from

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other pursuits while studying online, including social media or music. Distractions decrease the efficiency of distant learning by causing time loss, attention loss, and time waste (Allotey, 2018; Bozkurt, 2020; Igwenagu, 2016).

In Indonesia and other countries with similar economic status, continuing education in this time of pandemic had not been a difficult task. It is because these countries already utilize distance learning modalities for those who are in remote areas and who cannot afford to travel to school for hours. Radio-based learning is one of Indonesia's modalities adopted by their school leaders to continue education in the new normal (Acido et al., 2018; Bozkurt, 2020; Park, 2018).

Moreover, the Radio-Based Instruction (RBI) program is one of the alternate methods for delivering education that uses radio broadcasts and self-learning modules to provide the lesson (SLM). It enables learners who live in rural areas to have more access to education because it is a form of remote learning. Without genuine face-to-face interaction, it tries to give listeners learning chances as supplemental learning while using their SLM. These types of education are advantageous for learners from rural places through radio frequencies (DepEd Order No. 8 s. 2015; Ho & Thukral, 2019; Jacob & Ensign, 2020).

On the other hand, implementing and utilizing Radio-Based Instruction has disadvantages that affect the learner's academic performance. Radio can be impersonal, and kids who spend much time listening to a voice from a box may rapidly grow bored. Although listening groups and remote education courses can help address this disadvantage, there may not often be any spontaneous learner input. Due to the lack of visual aid that radio programs may offer, the range of subjects is constrained. Receiving a radio program is interrupted breaking continuity. Long regular radio shows make it harder for pupils to maintain self-control (Elliot & Lashley, 2017; Prahmana et al., 2021; Stabback, 2016).

In Maitum, Sarangani has a wide range of geographical details regarding school placement. District Supervisors agreed to pilot-test the utilization of Radio-Based Instruction and later encouraged schools to apply the modality in the area. However, several schools in Maitum, Sarangani, continued to use Self-Learning Modules provided by the Regional Office as their modality in education. It led to a limited number of schools utilizing Radio-Based Instruction at present. In implementing Radio-Based Instruction, teachers had become broadcasters, who, according to the supervisor, are responsible for delivering the lesson in a way that news gets delivered through the radio. Therefore, significant and related training is conducted for teacher-broadcasters to cope with the critical rules in broadcasting and not clash with the regulations in lesson delivery. Resource persons from different districts were also invited to train teacher-broadcasters on Radio-Based Instruction (Chandar & Sharma, 2018; Levy, 2016).

Despite the rapid advancements in technology and the increasing availability of digital learning platforms, there remains a significant research gap regarding the implementation, utilization, and effects of Radio-Based Instruction on the academic

performance of Grade 7 students. While radio-based education has shown promise as a viable alternative for delivering education in remote areas with limited access to the internet, there is a scarcity of studies that explore its effectiveness in enhancing students' academic outcomes. Thus, there is a need for comprehensive research to investigate the potential benefits and drawbacks of a proposed intervention program, which could provide valuable insights into the efficacy of this instructional approach and inform the development of innovative educational strategies for underserved communities.

The researcher conducted this study to investigate the modality's implementation of Radio-Based Instruction in terms of planning and agreement, information dissemination and feedback, organization and analysis, budgeting and materials, and monitoring and evaluation. Furthermore, this study investigated the utilization of RBI in terms of background knowledge on RBI, the ratio between learners and materials, RBI production, and utilization. This study also determined the academic performance of learners in the Maitum District. An intervention program was also crafted.

2. Literature Review

This section presents the related articles, studies, and literature about the implementation, utilization, and effects of Radio-Based Instruction.

2.1 Implementation of Radio-Based Instruction

The COVID-19 pandemic presents a significant problem for education systems worldwide, as the Department of Education must deliver education digitally to prevent the spread of the virus. The difficulty is that some learners reside in rural areas far away from cities, and learning in an interconnected world should be done digitally (Damani & Mitchell, 2020; DepEd Order No. 31, s. 2020; Moloo et al., 2018).

Furthermore, countries such as Indonesia, the United Kingdom, and Georgetown in South America developed Interactive Radio Instruction (IRI) as a distance learning tool for learning to still be available for children whose homes are too remote to reach. The method of IRI is more deliberate than active learning alone. IRI series guides participants in the learning process through activities related to measurable learning objectives (Elliot & Lashley, 2017; Kinder, 2016; Ho & Thukral, 2019).

Additionally, educational content is organized and distributed across lessons so that learning is built upon previous knowledge and new learners more easily construct an understanding of the subject being taught. Radio characters first model activities and problems so that the teacher and learners know the process they are working on and the skills and support that may be required. These elements are knit together through storylines, music, characterization, and other attributes available through the audio medium (Acido et al., 2018; Jacob & Ensign, 2020; Yayen & Marensil, 2021).

Further, IRI programs are tailored particularly to the target audience and the context in which they will be applied. The design's dependence on audience research,

engagement, and field-level formative evaluation is one of its most important features since it helps to ensure that courses are exciting and relevant and that learners can accomplish the learning goals. With each cycle of feedback and observation, a program's structure, activities, and breaks alter (Elliot & Lashley, 2017; Moloo et al., 2018; Raza, 2022).

Also, given the pervasive use of IRI, it is evident that success and the challenges with numeracy achievement in Guyana, the introduction of IRI as a viable technology appeared to be a wise choice, particularly given Guyana's history of radio-delivered Instruction since 1975. While these early broadcasts were intended to introduce or reinforce educational concepts rather than provide a comprehensive curriculum, it was natural to expand the use of this medium and give a complete mathematics program to be delivered at the primary level (Grady, Iannantuoni & Winters, 2021; Ho & Thukral, 2019; Kurrien, 2018).

Moreover, DepEd Secretary Briones emphasized that the Department of Education's topmost priority is to ensure our learners' health, safety, and well-being while ensuring a continuance of basic education. In this regard, the Department of Education devised a delivery method that can be customized to meet the needs of each learner, despite local restrictions on remote learning. DepEd Undersecretary Nepomuceno Malaluan enumerated the three types of modality: Modular Distance Learning, DepEd Commons, and TV and radio-based teaching. For TV and radio-based teaching, the education department has launched DepEd TV. This program converts self-learning modules into video lessons that can be accessed through IBC13 and Solar Learning Outlets. In addition, it features "teacher-broadcasters" who underwent training on effectively delivering lessons via pre-recorded videos (DepEd Order No. 31, s. 2020; Stabback, 2016; Valdez, Paulican & Andriatico, 2018).

Furthermore, Radio-Based Instruction's objectives include providing learning opportunities for listeners who are out-of-school youth and adults, enabling them to acquire equivalency in primary education. However, instructional materials were rated the lowest amongst the six variables because the modules had been distributed only to ALS implementers. These modules included 15 compact discs containing 40 episodes, five-session guides, and six learning workbooks. ALS-RBI serves 46 communities. The materials are not enough. The practice has been to photocopy the modules for each implementer (Elliot & Lashley, 2017; Mahdy, 2020; Prahmana, Hartanto, Kusumaningtyas & Ali, 2021).

Additionally, the implementer makes copies for each lesson according to how much they can afford. However, the worksheets are given to each learner because this is where they are checked and given marks. For compact discs, many communities do not have disc players. So, the implementers transferred the audio into USBs which they could play on their laptops using a portable sound box (DepEd Order No. 8, s. 2015; DepEd Order No. 31, s. 2020; Sintema, 2020).

The summary also shows a very effective rating in all six variables as to objectives, content, methods, materials, assessment, and evaluation, meaning that the curriculum's planning has been carefully conceptualized with learning strands parallel to the formal education curricula. The teaching/ learning methods are also appropriate to the non-formal setting of this type of modality in that the choice of lessons and topics are relevant to the learners. Monitoring and evaluation are also in place. From the learners' perspective, they are being graded on their learning, which would end with the Accreditation and Equivalency Test (Anoda, 2020; Fontanos, Gonzales, Lucasan & Ocampo, 2020; Theroux, 2017).

On the part of the implementers, they would have to submit periodic reports to their coordinators, the coordinators to their specialists, and finally, the coordinators to the supervisor of ALS. In terms of the instructional materials/modules, the lessons and activities have been transformed into radio broadcasts using the Filipino language, so learners understand them. Even in the learning environment and classroom culture, they understood the use of other places outside the classrooms (Acido et al., 2018; Stabback, 2016; Valdez, Paulican & Adriatico, 2018).

Moreover, the ALS-RBI collaboration among the superintendent, supervisor, specialists, and coordinators worked smoothly. The curriculum provides the bridge between education and development – the competencies associated with lifelong learning and aligned with development needs, in the broadest, holistic sense of the term, that span that bridge. However, the curriculum is only one of the many factors that would make ALS succeed. As mentioned in this paper, there has to be reform if ALS were to make a dent in the development of the Filipino people (Akcil et al., 2022; Brookfield, 2016; Cooke & Romweber, 2017).

The College of Education at the University of the Philippines (UP) has designed a radio literacy program (Radyo Edukado) to help empower impoverished communities and families as they work to support their children's schooling and academic tasks. Radyo Edukado is a weekly radio show aired every Monday morning through DZUP (1602 at the AM mode), the University's local radio station. The said program's content aligns with the goals and course modules of the College of Education's National Service Training Program (NSTP). The NSTP serves as the extension course for the college's pre-service learners and allows for an alternative, more communitarian approach to pre-service teacher education instruction (Akintayo, 2018; Baccal & Ormilla, 2021; Vyas, Sharma & Kumar, 2020).

Moreover, Radyo Edukado, or the radio-based literacy program, covers the course content of the college's NSTP program and serves as a medium where literacy is taught to the parents and the community, so they could, in turn, support their children's literacy learning and development. The aims of the said radio-based literacy program are congruent with the objectives of an educational radio broadcast used in teaching and learning, which are also espoused by various education and media theorists, among them. Specifically, these objectives include improving the quality of learning and

education, extending educational opportunities through alternative or distance learning, improving the quality of classroom instruction, and teaching literacy skills among underprivileged populations (Bates, 2019; Fontanos et al., 2020; Kinder, 2016; Pablo, 2021).

There are significant technological access differences between the rich and poor, rural and urban, females and males, and among countries due to the COVID-19 epidemic. Online learning environments have frequently been used first to enable children to continue their education at home; generally, they are the most effective teaching technique in setting up some educational programs. However, they do have the shortest reach. Despite the pandemic threat, the Department of Education believed that deploying Radio-Based Instruction would aid teachers, learners, parents, and community members in continuing their education (Ambeth & Saravanakumar, 2020; Prahmana et al., 2021).

2.2 Utilization of Radio-Based Instruction

The Department of Education defined Radio-Based Instruction as utilizing Self-Learning Modules, which were converted to radio scripts. Since the Alternative Learning System (ALS) in other parts of the Philippines already used this modality, DepEd provided quality-assured materials for the learning environment. The Department also intended to provide materials for formal education teachers to implement the Radio-Based Instruction (DepEd Order NO. 31, s. 2020; van Cappelle et al., 2021; Theroux, 2017).

Moreover, Indonesia's diverse physical circumstances, which include mountains, lowlands, highlands, and valleys, as well as specific places that are far distant from cities, make it difficult for learners to access the internet, making virtual teaching a challenging endeavor. These places are typically referred to as remote areas. In Nigeria, radio broadcasts of lessons were introduced in 1932. In distance learning, high-quality radio programs successfully expand access and quality of distance education. In these cases, radios teach learners, not in school. These learners—the poorest, least-supported, and most isolated pupils to whom access to education has traditionally been denied—might be orphans, afflicted by violence, living in nations where most social systems have broken down or never existed, and working-class (Baccal & Ormilla, 2021; Prahmana et al., 2021; Valdez, Paulican & Andriatico, 2018).

Furthermore, when the educational system is weak, there are few qualified lecturers, and many instructional materials need to be delivered, radio use is found to be entirely appropriate. According to the government, the Philippines' strategy for coping with learning challenges in rural areas has been ambiguous. This project was developed to introduce a theoretical learning framework that may be utilized to assist distant learning in Indonesia's rural regions. Indonesia used Radio-Based Instruction or Interactive Radio Instruction (IRI) in their term, and the performance of learners who were "hard to reach" was significantly above average. Hard-to-reach areas benefitted the program most since the distance was one significant challenge in their educational setup (Acido et al., 2018; Damani & Mitchell, 2020; Raza, 2022).

Additionally, Radio-Based Instruction (RBI) is a parallel learning system to the existing formal schooling in the Philippines. The Alternative Learning System (ALS) used this modality in lesson delivery with the program's objective to provide opportunities for listeners who are out-of-school youth and adults, enabling them to acquire equivalency in primary education. Radio-Based Instruction as an alternative in this pandemic was highly effective for both the learners and the parents. Furthermore, both found that learning through radio provided an effective modality to support learning even without face-to-face classes. Therefore, the RBI greatly impacted the lives of learners in so many ways, especially during the pandemic (DepEd Order NO. 31, s. 2020; Jacob & Ensign, 2020; Pablo, 2021).

Furthermore, Radio-Based Instruction provided learning opportunities to learners who could not attend face-to-face sessions, such as those working or living in remote areas. Also, the said modality successfully expanded access and quality of distance learning and education. Moreover, radio holds great potential in supporting learners learning at a distance. Radio-Based Instruction (RBI), as described by DepEd, is a distance learning modality that uses the content of learning materials and gets delivered through radio, whether in live broadcast or recorded audio production. There are now widened options in the choice of technology in education. However, radio is still prevalent in the education system, especially in elementary (Anoda, 2020; Fontanos et al., 2020; Kurrien, 2018).

In addition, distance learning, as what the country is utilizing at present, needs the use of advanced, if not standard, technology materials. From this modality, high-quality radio programs successfully provide greater and broader access and a more reliable quality of distance education. In other countries before the pandemic, schools already used radio to teach learners who were not physically present in school for several reasons. These reasons include conflict in the area and the fact that learners may be orphans or live in countries where almost the entire social systems have broken down or never existed or the most remote areas whose access to education has traditionally been denied (Cooke & Romweber, 2017; Ibrahim & Mishra, 2016; Yayen & Marensil, 2021).

It is often used in huge-scale systems, like India, where more than 20 million learners use Radio-Based Education. Radio use is seen as appropriate under these circumstances, where the educational system is weak, qualified lecturers are hard to come by, and extensive supplies of teaching materials are required. Most of the interactive teaching ideas revealed by the original Nicaragua project have proven to be enduring, suitable, and current. Where changes have occurred, they have been additive (Brookfield, 2016; Jacob & Ensign, 2020).

In addition, constructivist philosophy has rightfully increased practitioners' awareness of the importance of considering children's prior experiences. The necessity of managing the entire class for thirty minutes, as opposed to the instructional relationship between the teacher, the radio, and the single learner, has been reinforced by common sense. Teachers have acknowledged the dominance of training the teacher and educating

the learner, building explicit training objectives for the teacher and learning objectives for the learners (Ho & Thukral, 2019; Moloo et al., 2018; van Cappelle et al., 2021).

Radio has been a popular medium in Guyana's classroom for over a decade. Radio technology is viewed as "old technology," yet it is used to deliver a new method of pedagogy so pupils can become more engaged in classroom instruction. The Department of Education stated that the Radio-Based Instruction (RBI) Program is an alternative learning model using radio broadcasts to deliver the Alternative Learning System (ALS) programs. From the program itself, the Department adopted the modality at present. As a form of distance learning, it can increase access to education by delivering it to where the learners are. It further aims to provide learning opportunities to listeners and enable them to acquire equivalency in primary education through the broadcast of lessons (Levy, 2016; Pablo, 2021; Vyas et al., 2020).

In addition, the RBI affected the lives of learners in many different ways. It introduced learning opportunities to learners who cannot attend face-to-face sessions, like those living in remote areas or working. It successfully expanded access and quality of distance education. Most RBI learners who are A & E Test passers are employed locally and abroad. Many proceeded to tertiary education, which was highly unlikely if they were not given access to education. It also has the sole recognition of being the longest-running Radio-Based Instruction Program in Mindanao (Akintayo, 2018; Bozkurt, 2020; Chandar & Sharma, 2018).

Additionally, the Alternative Learning System (ALS), specifically the Radio-Based Instruction (RBI), is a parallel learning system to the existing formal schooling in the Philippines. Some people cannot access formal education; hence, ALS is the alternative teaching mode. Several Filipinos did not have a chance to attend or finish formal primary education for several reasons, including dropping out of school and lacking schools in their communities (Akcil et al., 2022; Brookfield, 2016; Cooke & Romweber, 2017).

Moreover, Bandura's social cognitive theory emphasizes the role of cognition in people's ability to construct reality, self-regulate, encode information, and act. Bandura's theory suggests that people are self-organizing, proactive, self-reflecting, and self-regulating. These are compared to people being reactive organisms shaped by environmental forces or driven by basic inner impulses. For Bandura, introspection is essential to predicting the influence of ecological outcomes on behavior. The capacity of humans to think abstractly or symbolically positions the media as a vital source of information to facilitate observational learning and increase self-efficacy to perform given behaviors (Akcil et al., 2022; Baccal & Ormilla, 2021; Yayen & Marensil, 2021).

In turn, social cognitive theory offers a vantage point from which to examine the influence of mediated content on audiences' attitudes and behaviors. According to the theoretical justification above, this theory contends that for negotiated content to successfully influence audience members' actions, the audience must focus on attractive or comparable models exhibiting the desired behaviors. According to the social cognitive

theory, human behavior results from interaction or reciprocal determinism (Bates, 2019; Brookfield, 2016; Ibrahim & Mishra, 2016).

Thus, the COVID-19 pandemic presents a significant problem for education systems worldwide, as education must be delivered digitally to prevent the virus's spread. The difficulty is that there are learners who reside in rural areas far away from cities, and learning in an interconnected world should be done digitally, which is not always the case. Therefore, the Department of Education (2021) defined Radio-Based Instruction as utilizing Self-Learning Modules, which were converted to radio scripts. Since the Alternative Learning System (ALS) in other parts of the Philippines already used this modality, DepEd provided quality-assured materials for the learning environment. The Department also intended to provide formal education materials for teachers to implement Radio-Based Instruction (Magolda, 2016; Mahdy, 2020; Sintema, 2020).

Moreover, according to the government, the Philippines' strategy for coping with learning challenges in rural areas has been ambiguous. This project aims to develop a theoretical learning framework that may be utilized to assist distant learning in Indonesia's rural regions. Existing situations like these were used in comparison to the present educational setup. These studies present ideas on delivering and benefiting from Radio-Based Instruction, mainly so that the current academic structure is at risk of the pandemic. Furthermore, education in the Philippines and the rural areas have been adjusted, and several ways to provide a quality learning process amidst the pandemic. Studies like these give ideas to administrators and staff to fulfill their mission as stewards of the institution to ensure enabling and supportive environment for effective learning to happen (Acido et al., 2018; Jacob & Ensign, 2020; Yayen & Marensil, 2021).

Furthermore, Interactive Radio Instruction (IRI) is an instructional tool designed to deliver a class-like scenario by radio. Audio lessons used in this Instruction are developed to guide the teacher, facilitator, and learners. Activities, games, and exercises teach carefully organized knowledge and skills. At the short pauses built into the radio scripts, teachers and learners participate in the radio program during an academic year, often more than 100 times in daily half-hour lessons, reacting physically and maybe verbally to questions and exercises. Radio script formats vary according to the learning area and grade level. Additionally, the program suggests that learners participate in group work, experiments, and other activities. In this strategy, IRI exposes learners to regular, curriculum-based content and models effective teaching and activities (Anoda, 2020; Cooke & Romweber, 2017; Ibrahim & Mishra, 2016).

Overall, in the Philippines, attempting to push through education in the new normal is a problematic endeavor amid the covid-19 epidemic, which is devastating. The Commission on Higher Education and the Department of Education (DepEd) despite numerous objections, the Department of Education (CHED) adopted and implemented the flexible blended learning concept due to the danger of opening classrooms due to infection. The following are the various learning modalities: printed, modular, digital,

online, educational TV, instructional radio, homeschooling, and blended learning. The studies about Radio-Based Instruction found that learners' performance possibly improved with this kind of Instruction. However, these studies were from before the pandemic and the new regular education. Therefore, Radio-Based Instruction determines whether the program affects learners' performance (Allotey, 2018; Bozkurt, 2020; Chandar & Sharma, 2018).

2.3 Effects of Radio-Based Instruction

Various studies worldwide show that radio has emerged as an effective tool to bridge education gaps as it helps improve learners' learning outcomes. According to many studies, radio has been utilized as a medium to inexpensively reach big audiences in Pakistan, Latin America, and Africa. In addition, several nations have adopted interactive radio in school education from the 1970s until now (Ambeth & Saravanakumar, 2020; Baccal & Ormilla, 2021; Sintema, 2020).

In this regard, the radio played an influential educational role as the sole medium and in conjunction with print and group support. Interactive Radio Instruction (IRI) regularly provided learning improvements among participants of various ages and in multiple situations, and it was linked to better levels of learner accomplishment. In education, radio interventions have been used primarily in subjects like mathematics and English education. In addition, evidence suggests that the intervention has helped improve teaching practices in an unfamiliar issue like a language (Akintayo, 2018; Allotey, 2018; Cooke & Romweber, 2017).

Moreover, there were findings from the radio program that verified English language learning. In urban and rural schools all over India, it was a multilingual radio show that taught spoken English. The Center for Learning Resources, Pune, initiated the project from 2000 to 2008. The program substantially impacted many urban and rural learners studying in government schools, helping them start speaking and expressing their strengths in radio. Without sacrificing education quality, its cost-effectiveness can be leveraged to address the growing educational needs of developing nations (Brookfield, 2016; van Cappelle et al., 2021; Yayen & Marensil, 2021).

Furthermore, India has also experimented with utilizing innovative tools to bridge the gaps in the education sector. The said country has not been able to ensure the availability of qualified and well-trained teachers across all elementary schools. Hence, techniques such as radio for education have become a more accessible option for bridging the gap where trained teachers are unavailable or exhibit difficulty teaching particular elements of the school curriculum. It has been identified as a means of supplementing the traditional teaching-learning process in schools (Baccal & Ormilla, 2021; Jacob & Ensign, 2020; Yayen & Marensil, 2021).

Moreover, in 2000, India adopted radio technology through the IRI intervention to improve the quality of education in elementary schools. It is claimed to be a time-tested tool worldwide to reach larger audiences cost-effectively. Since 2000, IRI has been utilized

and delivered to elementary schools in various media. According to Levy (2016), faculty members encountered different unique situations when teaching an online learning class compared to a traditional style. These circumstances included: the administration or management of online courses; the course layout and design; the best content delivery method, such as text, graphics, audio, or video; the various communication channels that learners will use, such as e-mail, discussion boards, and chats; ways to increase and maintain learner involvement; appropriate learner assessments for online learning; and an understanding of all the technologies being used in the course (Bates, 2019; Kinder, 2016; Mahdy, 2020).

Additionally, Interactive Radio Instruction (IRI) is unique from other forms of distance learning strategy in that its primary goal has been to boost the quality of education. IRI was first used as a classroom tool to counteract low levels of teacher training, poor achievement among learners, and limited resources, unlike many distance learning programs primarily designed to address access issues. This strategy has proved to be used to expand access and increase equity in formal and non-formal educational settings. It also emphasizes quality improvement through a development strategy and methodology that include active learning, pedagogy, and formative evaluation as critical components of its design (Ho & Thukral, 2019; Pablo, 2021; Prahmana et al., 2021).

Moreover, the next concept relates to the radio-based Instruction on which this study is anchored. The importance of educational radio: it is inexpensive, costing only a fraction of what would be required to offer the same material via television; radio-based training is equally practical as traditional lecture presentations and television broadcasts, and radios are a common household item around the world, allowing teachers to reach an essentially international audience. In the present study, ALS-RBI of Malaybalay City was given by Bukidnon State University - College of Social Development and Technology compact discs containing the five learning strands and instructional materials translated into Filipino. The lessons are also aired weekly on the University's radio station, dxBU. Learners are grouped in places such as the barangay halls or any other places where they can converge and hold classes by listening to the learning episodes (Baccal & Ormilla, 2021; Fontanos et al., 2020).

In addition, the overall result in the curriculum indicated very effectiveness, with the responses homogeneity. The curriculum of ALS is comprehensive because the six learning strands parallel the subjects offered in formal education. ALS also develops the social competencies of the learners. Here they interact with each other and are taught the conventions of politeness. They are taught ways to augment their income which is an essential aspect of their situation. The curriculum also teaches them cultural competencies because they value their and others' cultural backgrounds. It is in this system that they get introduced to enrich their technological competencies, where they acquire the proper attitudes like professionalism, practice good decision-making skills, and where are provided with radio-based and face-to-face instruction to suit their needs (Ambeth & Sarayanakumar, 2020; Damani & Mitchell, 2020; Salendab & Cogo, 2022).

Furthermore, for teaching/learning methods, findings show the overall effective result in all indicators, with the standard deviation clustered around the mean. The implementers followed their modules; although they could use other references to enrich their lessons, the module was the primary source of the classes and topics. It came from the Bureau of Non-formal Education of the Department of Education. For the course contents, the design is made in such a way that they develop the learner's skills. For example, during the FGD, they shared that in the lesson on the environment, they were able to solicit solutions from the learners in mitigating the effects of climate change. They also conducted formal and informal consultations, a crucial time when the implementers would know more about their learners and their backgrounds (Damani & Mitchell, 2020; Grady et al., 2021; Mollo et al., 2018).

More importantly, Instructional materials were rated effective by the implementers, coordinators, Edom chairs, specialists, and supervisors. It means that the instructional materials for RBI are available, and their contents are sufficient for each learning strand. Additionally, workbooks and compact discs are helpful, lessons are understandable, the module packaging is attractive, RBI lessons have interchanges of different voice talents, and activities are adequately timed for learners to finish the tasks (Akcil et al., 2022; Brookfield, 2016; Kinder, 2016).

Moreover, the radio-based literacy program of the University of the Philippines' College of Education, Radyo Edukado, was well-received and appreciated by the recipient school's parents, families, and community. The intended recipients rated the program design, delivery, topic and content, technical aspects, and support components considered elements of an effective radio-based literacy program (Sintema, 2020; Theroux, 2017).

Additionally, radio-delivered instruction enriches the learning environment by engaging resources already available such as teachers, songs, games, the background, books, blackboard, the expertise of community members, and locally available materials to create a combination of good teaching and learning practice. In some scenarios, rather than transmitting Instruction via live broadcasts, lessons are pre-recorded on CDs or in mp3 format and are delivered with accompanying audio players within classrooms (Stabback, 2016; Valdez et al., 2018).

2.4 Academic Performance of Learners in the New Normal

The new regular education paved many ways to continue education amidst several possible challenges. The modalities, resources, learning objectives, and assessing learners' performance also changed. In light of the current situation in education, the Department of Education released DepEd Order No. 31, 2. 2020, also known as the Interim Guidelines for Assessment and Grading in Light of the Basic Education Learning Continuity Plan (BE-LCP). This order started its implementation in the School Year 2020-2021 by public elementary and secondary schools (Akcil et al., 2022; DepEd Order No. 8, 2. 2015; Fontanos et al., 2020).

Moreover, higher education also encountered a strong impact from the pandemic on their academic performance. Considering that higher education learners may afford the tools to continue learning at a distance, more than 75% of them were affected by the pandemic, causing their academic performance to stir. The learner's academic performance level is likely to drop for the classes held for both year-end examination and internal examination due to reduced contact hours for learners and lack of consultation with teachers when facing difficulties in learning/understanding (Ho & Thukral, 2019; Mahdy, 2020; Sintema, 2020).

The Department of Education also encouraged private schools, technical and vocational institutions, and higher education institutions like state and local universities and colleges that offer the K-12 Basic Education Program to follow the interim policy principles outlined above. The DepEd is committed to providing educational continuity during this crisis while caring for the learners', teachers', and personnel's health, safety, and well-being. Therefore, schools were advised to adopt assessment and grading practices that can most meaningfully support learner development and respond to the varied context at the time. The interim policy aims to ensure that all learners are pretty assessed and graded in the continuation of education notwithstanding the epidemic and to underline that learning requirements must be reached with reasonable flexibility and regard for potential challenges encountered by the learner (Acido et al., 2018; Mahdy, 2020; Raza, 2022).

Furthermore, the most crucial change in the conduct of assessment and grading in the new normal is the removal of the Quarterly Examination portion, which initially contributed to 20% of the learner's final grade in each learning area. In a situation like this, the quarterly examination was removed due to a lack of practice and continuation of learning delivery since the learner chose the modality that suited them well (Moloo et al., 2018; Olakulehin, 2016; Sintema, 2020).

In addition, the 20% was then transferred to the portion of Written Works and Performance Tasks, which in the new regular education were the key to the assessment of academic performance. In this setup, learners' academic performance will only depend on how they comply with requirements, whether written or based on performance. Given these bases in doing assessments in the new normal, learners' performance may solely depend on how they understand the content of the self-learning modules, learning activity sheets, what they see on the television, or what they hear from the radio with regard to the delivery of the lesson (Damani & Mitchell, 2020; Ho & Thukral, 2019; Pablo, 2021).

On the other hand, grading the learners based on their performance from the given modalities, with emphasis on Radio-Based Instruction, will challenge teachers in various ways, such as the legitimacy of the learners' answers to the questions or whether or not they were the ones who answered the questions. There are many unanswered questions in this type of educational setup, and this research may provide the answers to that (Kinder, 2016; Kurrien, 2018; Raza, 2022).

Additionally, literature was done on the use and role of media in teaching literacy that showed radio literacy programs to be the most viable teaching literacy, as it is considered one of the most affordable technologies available for education and development purposes in developing countries. The research data also highlighted alignment with the objectives of an educational radio broadcast used in teaching and learning. It includes improving the quality of learning and education, extending educational opportunities through alternative or distance learning, improving the quality of classroom instruction, and teaching literacy skills among underprivileged populations.

3. Material and Methods

The chapter presents the method and procedure used in the conduct of the study. It includes the research design, research locale, populations and sample, research instrument, data collection, statistical tools and ethical consideration employed in this study.

3.1 Research Design

This research employed a cross-sectional research design, wherein a group of respondents was selected from a defined population and contacted at a single point in time. According to Paler-Calmorin (2015), quantitative-based cross-sectional designs use data to make statistical inferences about the people of interest or to compare subgroups within a society. Cross-sectional studies are referred to as observational studies. These are primarily used to determine prevalence. Prevalence equals the number of cases within a population at a given time. All measurements are made at a single point on each person.

Moreover, the subjects were tested at one point to decide if exposure to the appropriate agent was evident and whether they had the product of interest. It set the type of study apart from the other observational studies where exposure or issues was prominent. The benefit of such research was that participants were neither intentionally revealed, handled, or untreated and rarely had ethical problems. Data must only have one category and must only use once to assess different results. Several cross-sectional studies were carried out using questionnaires. Alternatively, one could interview each subject.

Cross-sectional research design pertains to a type of observational study design. In this study, the investigator simultaneously measures the outcome and the participants' exposures. Additionally, a subset of the population or the total population is chosen in this form of the research study. Data are gathered from these people to aid in addressing relevant research concerns. Because the information about X and Y that is collected only represents what is happening at one point, it is called cross-sectional (Wang & Cheng, 2020).

3.2 Population and Sample

The study's respondents were teachers teaching Grade 7 and Grade 7 learners from the three schools in the Municipality of Maitum. There were 30 teachers and 243 learners as the respondents of the study. Total enumeration was applied for the teachers' respondents while the Slovin formula was used to get the desired sample for learners' responses: out of 622, the final number of respondents was 243.

3.3 Research Instrument

The researcher used a researcher-developed survey questionnaire focusing on implementing and utilizing Radio-Based Instruction at the school level. The tool was validated and subjected to reliability testing, editing, and finalization.

There were two types of instruments administered. The first was the survey questionnaire on the implementation of RBI, and the second was a survey questionnaire on the utilization of RBI. The teacher-respondents accomplished this instrument. Part I asked about the implementation of Radio-Based Instruction. It has 5 Indicators: (a) Planning and Agreement; (b) Information Dissemination and Feedback; (c) Organization and Analysis; (d) Budgeting and Materials; and (e) Monitoring and Evaluation. Each indicator has seven sub-indicators. The statements will be answered through a 4-point Likert Scale on likelihood: 4 as Definitely, three as Probably; 2 as Possibly; and one as Definitely Not.

The second part of this questionnaire asked about using Radio-Based Instruction in the school. It had four indicators: (a) Background Knowledge of RBI; (b) Ratio between Learners and Materials; (c) RBI Production; and (d) Utilization. Each indicator also has seven sub-indicators. Each sub-indicator will be answered through a 4-point Likert Scale: 4 as to a Great Extent; 3 as Very Little; 2 as Somewhat; and one as Not at all.

3.4 Data Collection

The researcher collected data based from the book of Igwenagu (2016) entitled "Fundamental of Research Methodology and Data Collection". To pursue this study, the researcher asked permission of Ethic and Review Committee (ERC) and Graduate School of Ramon Magsaysay Memorial Colleges. After granting the permission, a letter to conduct the study was secured from the office of the Schools Division Superintendent, Schools Division Office of the Sarangani. Then, the researcher secured a letter of permission checked by the adviser and signed and approved by the school's division office to conduct the study in the locale. The received copy was then brought to the school heads of the schools where the study was to be undertaken. Following the health and safety protocol, the researcher then administered the research instrument to the respondents. The researcher first conducted an orientation session along with the informed consent form to ensure an attentive response and obtain the respondents' permission for collecting reliable data.

After the orientation, the researcher administered the questionnaires and prepared to give immediate answers to questions raised by the respondents. The teacher-respondents were given enough time to complete the questionnaire. After that, the researcher dealt with any questions concerning the study. After retrieving the necessary documents from the questionnaire administration, the researcher recovered the responses, consolidated them, and applied statistical treatment.

Retrieved questionnaires underwent item analysis to determine specific factors that contribute the highest and the lowest to the overall mean of the indicator. After retrieval of the questionnaires from the teachers, the researcher requested a copy of learners' grades for Quarter 2. The reason for choosing the timeline for the rates to be asked was that the First Quarter was an adjustment period for the teachers and the learners, thus creating a tiny rift in providing accurate numerical performance. Quarter 2 was an established timeline. After interpreting the data gathered, the researcher continued developing programs as interventions, given the result of the study.

3.5 Statistical Tools
Mean was used to determine the implementation and utilization of Radio-Based Instruction, while frequency count and percentage was used to determine the academic performance of Grade 7 learners in all subjects in the Maitum district.

4. Results and Discussion

4.1 Results
This chapter deals with the presentation, analysis, and interpretation of the data gathered in the study.

4.1.1 Implementation of Radio-Based Instruction Planning and Agreement
The data presented in Table 4 pertains to the implementation of Radio-Based Instruction (RBI) in three different schools, namely School A, School B, and School C. The table displays the means and standard deviations of seven different items related to planning and agreement concerning the implementation of RBI. The items assess various aspects of the planning and agreement process, including the agreement among school members to use RBI, the planning of the implementation process, the setting of start and end dates, the existence of a signed agreement copy, the scheduling of feedback-giving sessions, the solicitation of teachers' opinions, and the consideration of potential challenges and future problems.

Table 4: Implementation of Radio-Based Instruction in terms of Planning and Agreement

Items	School A		School B		School C	
	Mean	Description	Mean	Description	Mean	Description
1. School members have agreed to use Radio-Based Instruction as a Learning Modality.	4.3	Very High	4.4	Very High	4.1	Very High
2. Teachers, PTA Major Officers, SGC Officers, and SPT Members have planned to implement Radio-Based Instruction.	4.9	Very High	4.3	Very High	4.9	Very High
3. The RBI Task Force, with the stakeholders and PTA and SGC officers, has set the start and end dates using organizational charts.	4.2	Very High	4.6	Very High	4.6	Very High
4. There has been a signed agreement copy upon planning the program's implementation.	4.6	Very High	4.2	Very High	4.8	Very High
5. Feedback-giving sessions have been scheduled upon planning the implementation of Radio-Based Instruction.	4.1	Very High	4.1	Very High	4.3	Very High
6. Teachers have been asked for their reactions and opinion about implementing Radio-Based Instruction.	4.5	Very High	4.3	Very High	4.2	Very High
7. Opposing opinions, challenges, and future problems have been considered when planning the implementation of Radio-Based Instruction.	4.2	Very High	4.5	Very High	4.5	Very High
Total	**4.4**	**Very High**	**4.3**	**Very High**	**4.5**	**Very High**

The mean of the seven items in all three schools was relatively high, with a minimum mean of 4.1 and a maximum mean of 4.9, indicating that the schools have generally done a good job in terms of planning and agreement concerning the implementation of RBI. The standard deviations for all items are also relatively low, indicating that there is a high level of agreement among the respondents within each school.

It is worth noting that there are some minor differences in the means of the items between the schools. For example, School B had a slightly lower mean for Item 2 (4.3) compared to School A (4.9) and School C (4.9), indicating that School B may have had slightly less extensive planning among the stakeholders. Additionally, School A had a slightly higher mean for Item 4 (4.6) compared to School B (4.2) and School C (4.8), indicating that School A may have had a more formalized process in terms of signing an agreement copy.

In general, the data presented in the table suggests that the three schools have generally done a good job in terms of planning and agreement concerning the implementation of RBI. The high means and low standard deviations indicate a high level of agreement among the stakeholders within each school. However, there may be some minor differences between the schools in terms of the extent of planning and formalization of the process. It is important to note that this table only provides a snapshot of the planning and agreement process and does not necessarily guarantee the success of the implementation of RBI. Other factors such as the quality of the RBI program and its delivery, as well as the level of support and resources provided, will also play a crucial role in determining the success of the program.

4.1.2 Information Dissemination and Feedback

Table 5: Implementation of Radio-Based Instruction
in terms of Information Dissemination and Feedback

Items	School A		School B		School C	
	Mean	Description	Mean	Description	Mean	Description
1. Parents, learners, and community members have been appropriately informed about implementing Radio-Based Instruction as the school's learning modality.	3.7	High	3.2	High	3.8	High
2. Feedback-giving from information dissemination activities has been appropriately conducted.	3.3	High	3.5	High	3.2	High
3. A weekly feedback-giving session addresses issues between the implementation.	3.6	High	3.4	High	3.4	High
4. Aside from verbal announcements, parents, learners, and stakeholders have been given written memorandum regarding implementing Radio-Based Instruction.	3.3	High	3.1	High	3.2	High
5. A survey has been developed to collect the learner's feedback on the program's implementation.	3.8	High	3.8	High	3.6	High
6. Learners' feedback on the implementation is noted in their anecdotal records.	3.6	High	3.9	High	3.7	High
7. The community and local government units have been given complete information about the program's implementation.	3.1	High	4.0	High	3.2	High
Total	**3.1**	**High**	**3.6**	**High**	**3.4**	**High**

Table 5 shows the means and descriptions for seven items related to information dissemination and feedback in the implementation of Radio-Based Instruction (RBI) in three schools, namely School A, School B, and School C.

The first item pertains to whether parents, learners, and community members have been appropriately informed about the implementation of RBI. The means for this item ranged from 3.2 to 3.8, with School C having the highest mean. While all three schools had high means, there is a slight difference between the means, indicating that School C may have done a better job of informing the stakeholders about the implementation.

The second item concerns whether feedback-giving from information dissemination activities has been appropriately conducted. All three schools had means above 3.0, indicating that they have done a good job in this regard, with School B having the highest mean.

The third item pertains to whether a weekly feedback-giving session addresses issues between the implementation. All three schools had means above 3.0, indicating that they have implemented this practice to some extent. However, School A had the highest mean, suggesting that they may have been more effective in addressing issues through feedback sessions.

The fourth item assesses whether written memoranda were provided to parents, learners, and stakeholders in addition to verbal announcements. All three schools had means above 3.0, indicating that they have provided written memoranda to some extent, with School A having the highest mean.

The fifth item concerns the development of a survey to collect learners' feedback on the implementation of RBI. All three schools had means above 3.0, indicating that they have developed a survey, with School A and School B having the highest means.

The sixth item pertains to whether learners' feedback on the implementation is noted in their anecdotal records. All three schools had means above 3.0, indicating that they have noted learners' feedback, with School B having the highest mean.

The seventh item assesses whether the community and local government units have been given complete information about the program's implementation. School B had the highest mean for this item, indicating that they may have been more effective in providing complete information to the community and local government units.

Inclusively, the means for all seven items were above 3.0, indicating that the schools have done a good job in terms of information dissemination and feedback. However, there are some differences between the means of the different schools for each item, suggesting that some schools may have been more effective in certain areas than others.

It is important to note that while the means for all items are above 3.0, they are only considered "high" and not "very high." This indicates that there is still room for improvement in terms of information dissemination and feedback in the implementation of RBI. Schools should continue to strive to improve in these areas to ensure that all

stakeholders are appropriately informed and have the opportunity to provide feedback on the program's implementation.

4.2. Organization and Analysis

Table 6 provides data on the implementation of Radio-Based Instruction in terms of organization and analysis. The data presents the mean and description of each item in schools A, B, and C. The mean ranges from 3.1 to 3.8, with all schools having a high mean rating. Overall, the total mean for all schools is 3.5, indicating a high level of implementation of organization and analysis in implementing RBI.

Table 6: Implementation of Radio-Based Instruction in terms of Organization and Analysis

Items	School A		School B		School C	
	Mean	Description	Mean	Description	Mean	Description
1. RBI Task Force has been created to focus solely on implementing, monitoring, and evaluating the implementation of Radio-Based Instruction.	3.2	High	3.1	High	3.8	High
2. There has been a SWOT Analysis developed before the implementation of Radio-Based Instruction.	3.8	High	3.3	High	3.7	High
3. A Communication Pan and Gap Analysis were developed to address gaps and issues between implementation.	3.5	High	3.4	High	3.6	High
4. In-between-implementation activities have been analyzed to not distract the learners from classes conducted through radio.	3.1	High	3.8	High	3.2	High
5. The RBI Task Force has assigned members different aspects and programs related to implementing Radio-Based Instruction.	3.3	High	3.7	High	3.7	High
6. A subject-based group has been organized to create Gap Analysis specifically for the learning area.	3.7	High	3.4	High	3.4	High
7. Teachers and planning members are assigned tasks during the post-assessment and survey on implementing the Radio-Based Instruction.	3.6	High	3.1	High	3.5	High
Total	**3.5**	**High**	**3.4**	**High**	**3.6**	**High**

Item 1 shows that all schools have formed an RBI Task Force, which focuses on the implementation, monitoring, and evaluation of RBI. This item received a high mean rating for all schools, indicating that the task force is effective in handling RBI implementation.

Item 2 presents that a SWOT analysis has been developed before the implementation of RBI. A SWOT analysis helps the task force to identify and address the program's strengths, weaknesses, opportunities, and threats. All schools have a high mean rating, indicating that the SWOT analysis is an effective tool in RBI implementation. Item 3 highlights that a communication plan and gap analysis were developed to address gaps and issues in the RBI implementation. The schools also have high mean ratings, indicating that the communication plan and gap analysis have been effectively utilized. Item 4 shows that in-between-implementation activities have been analyzed to prevent learners from being distracted from classes conducted through radio. The mean rating for this item is high for schools A and C, while school B had a very high mean rating, indicating that they have a more effective analysis of in-between-implementation activities.

Item 5 indicates that the RBI Task Force has assigned members different aspects and programs related to implementing RBI. All schools have a high mean rating, indicating that the task force has appropriately delegated tasks to its members.

Item 6 shows that a subject-based group has been organized to create a gap analysis specifically for the learning area. All schools have a high mean rating, indicating that the subject-based group is effective in identifying and addressing gaps in learning areas.

Finally, item 7 highlights that teachers and planning members are assigned tasks during post-assessment and survey on implementing RBI. Schools A and C have a high mean rating, while school B has a low mean rating, indicating that there are some issues in task assignment in school B.

Lastly, the data in Table 4 indicates that all schools have implemented effective organization and analysis strategies in implementing RBI. The schools have formed an RBI Task Force, conducted a SWOT analysis, developed a communication plan and gap analysis, analyzed in-between-implementation activities, assigned members of the task force to different aspects and programs, formed subject-based groups to address learning gaps, and assigned tasks to teachers and planning members.

4.3 Budgeting and Materials

Table 7 presents the results of the assessment of the implementation of Radio-Based Instruction in terms of budgeting and materials across three schools. The mean ratings for each item suggest that the schools' performance in this area is moderate.

Table 7: Implementation of Radio-Based Instruction in terms of Budgeting and Materials

Items	School A		School B		School C	
	Mean	Description	Mean	Description	Mean	Description
1. The school has issued a budget for implementing Radio-Based Instruction.	3.0	Moderate	2.1	Moderate	2.6	Moderate
2. The school seeks support from stakeholders to successfully implement Radio-Based Instruction.	2.3	Moderate	2.5	Moderate	2.5	Moderate
3. Significant materials for the program have been purchased ahead of time.	2.1	Moderate	2.2	Moderate	2.3	Moderate
4. The school budgets are used primarily for implementing Radio-Based Instruction.	2.7	Moderate	2.9	Moderate	2.3	Moderate
5. Stakeholders willingly provide materials to help the school implement Radio-Based Instruction.	2.6	Moderate	2.7	Moderate	2.2	Moderate
6. The school has succeeded in the implementation of the budget assigned.	2.4	Moderate	2.6	Moderate	2.1	Moderate
7. Materials have been checked to be complete and working before being distributed to the learners.	2.2	Moderate	2.4	Moderate	2.4	Moderate
Total	**2.4**	**Moderate**	**2.5**	**Moderate**	**2.3**	**Moderate**

Item 1 indicates that the schools have issued a budget for implementing RBI. However, the mean ratings for all three schools are below the high threshold, indicating that there may be some limitations or inadequacies in the budget allocation. Item 4 suggests that the schools' budgets are primarily used for implementing RBI, but the mean ratings are still below the high threshold.

Item 2 suggests that the schools seek support from stakeholders to successfully implement RBI, but the mean ratings are still in the moderate range. This finding indicates that schools may need to explore more opportunities for collaboration and support from their stakeholders to implement RBI effectively.

Item 3 suggests that significant materials for the program have been purchased ahead of time. However, the mean ratings are still in the moderate range, indicating that there may be some limitations or inadequacies in the materials purchased.

Item 4 suggests that a significant portion of the school's budget is allocated towards implementing Radio-Based instruction. The school is likely investing in resources such as radio equipment, personnel to operate the radio station, and other related expenses.

Item 5 suggests that stakeholders are willing to provide materials to help the school implement RBI, but the mean ratings are still in the moderate range. This finding suggests that schools may need to explore more opportunities for collaboration and support from stakeholders to obtain the necessary materials.

Item 6 suggests that the schools have succeeded in implementing the assigned budget, but the mean ratings are still in the moderate range, indicating that there may be some limitations or inadequacies in the budget allocation and management.

Item 7 suggests that materials have been checked to be complete and working before being distributed to learners, but the mean ratings are still in the moderate range, indicating that there may be some limitations or inadequacies in the process of checking and distributing materials.

Overall, the moderate mean ratings for Table 5 suggest that schools need to improve their budget allocation, material procurement and management, and stakeholder collaboration to implement RBI more effectively. These findings are essential for school administrators and policymakers to address the limitations and gaps in implementing RBI, especially in resource-constrained settings.

4.4 Monitoring and Evaluation

The data presented in Table 8 provide information about the implementation of Radio-Based Instruction in terms of monitoring and evaluation in three different schools, School A, School B, and School C. Overall, the results indicate that all three schools have implemented monitoring and evaluation processes for Radio-Based Instruction, with School A having the highest mean score of 3.6, followed by School B and School C with mean scores of 3.5 and 3.4, respectively.

In terms of specific items, all three schools have established a process of collecting perceptions from learners regarding the implementation of Radio-Based Instruction (Item 1), with mean scores ranging from 3.1 to 3.6. This is an essential step in monitoring and evaluation as it allows schools to gather feedback from their learners, which can be used to improve the quality of the program.

Table 8: Implementation of Radio-Based Instruction in terms of Monitoring and Evaluation

Items	School A		School B		School C	
	Mean	Description	Mean	Description	Mean	Description
1. There is a process of collecting perceptions from learners regarding implementing Radio-Based Instruction.	3.1	High	3.6	High	3.2	High
2. There is a scheduled date for monitoring and evaluating the implementation of Radio-Based Instruction.	4.0	High	3.2	High	3.4	High
3. The school has developed a team to monitor and evaluate the implementation of Radio-Based Instruction.	3.5	High	3.9	High	3.2	High
4. Feedback, anecdotal records, and certifications and verifications have been collected and consolidated by the monitoring and evaluation team.	4.0	High	3.6	High	3.6	High
5. The Monitoring and Evaluation team had a checklist and scheduled weekly, monthly, and quarterly reporting.	3.4	High	3.7	High	4.0	High
6. The school head, as the leader of the Monitoring and evaluation team leader, provides constructive feedback to the implementers.	3.4	High	3.1	High	3.5	High
7. Proper recognition mechanism has been established to recognize the efforts of the implementers and members.	3.6	High	3.3	High	3.1	High
Total	**3.6**	**High**	**3.5**	**High**	**3.4**	**High**

School A had the highest mean score for Item 2, indicating that they have a scheduled date for monitoring and evaluating the implementation of Radio-Based Instruction. This is an important aspect of monitoring and evaluation as it ensures that the school is regularly assessing the effectiveness of the program and making necessary adjustments.

All three schools have developed a team to monitor and evaluate the implementation of Radio-Based Instruction (Item 3), with mean scores ranging from 3.2 to 3.9. This indicates that the schools have recognized the importance of having a dedicated team to oversee the implementation of the program.

School A had the highest mean score for Item 4, indicating that they have collected and consolidated feedback, anecdotal records, and certifications and verifications from the monitoring and evaluation team. This is an important aspect of monitoring and

evaluation as it provides schools with concrete evidence of the effectiveness of the program and areas that need improvement.

School C had the highest mean score for Item 5, indicating that they had a checklist and scheduled weekly, monthly, and quarterly reporting. This is a useful tool in monitoring and evaluation as it provides schools with a structured approach to assessing the implementation of the program.

All three schools have established a recognition mechanism to recognize the efforts of the implementers and members (Item 7), with mean scores ranging from 3.1 to 3.6. This is an important aspect of monitoring and evaluation as it provides schools with an opportunity to acknowledge and reward the efforts of those involved in the implementation of the program, which can help to maintain their motivation and commitment.

Overall, the data presented in Table 6 suggest that all three schools have implemented effective monitoring and evaluation processes for Radio-Based Instruction. These processes involve collecting perceptions from learners, scheduling regular monitoring and evaluation, developing a dedicated team to oversee implementation, collecting and consolidating feedback, and providing recognition to those involved. These processes can help schools to assess the effectiveness of the program, identify areas for improvement, and ultimately improve the quality of education for their learners.

4.5 Background Knowledge of RBI

The data in Table 9 shows the background knowledge of the teachers regarding Radio-Based Instruction (RBI). In all three schools, the mean scores for each item ranged from moderate to moderate-high.

The first item, which measures the presence of a legal basis and surveyed data before implementing RBI, received moderate scores in all schools, indicating that there is some knowledge about the legal framework and data-gathering processes.

Item 2, which measures prior knowledge of RBI before the pandemic, received moderate scores as well, indicating that while some teachers may have had some exposure to RBI, it was not widespread or in-depth.

Item 3, which measures teachers' self-assessed expertise in RBI, received moderate scores in all schools, indicating that teachers do not consider themselves experts in the field.

Items 4 and 5, which measure teachers' ability to teach using RBI, also received moderate scores, suggesting that while some teachers have some knowledge and skills in delivering RBI, there is still room for improvement.

Item 6, which measures familiarity with research and journals on RBI, received moderate scores in all schools, indicating that there is some engagement with literature on the subject.

Item 7, which measures colleagues' knowledge of RBI, also received moderate scores, suggesting that while there is some communication and sharing of knowledge among colleagues, it is not widespread.

Table 9: Utilization of Radio-Based Instruction in terms of Background Knowledge on RBI

Items	School A		School B		School C	
	Mean	Description	Mean	Description	Mean	Description
1. There is a legal basis and surveyed data gathered before the Radio-Based Instruction.	2.4	Moderate	2.6	Moderate	2.7	Moderate
2. Before the pandemic, I knew radio-based instructions from other places.	2.1	Moderate	2.5	Moderate	2.5	Moderate
3. I consider myself an expert in any aspect of Radio-Based Instruction.	2.2	Moderate	2.1	Moderate	2.9	Moderate
4. I can teach the learners about radio use in distance learning without any issues.	2.3	Moderate	3.0	Moderate	2.2	Moderate
5. I know how to deliver a lesson through radio without training.	2.4	Moderate	3.0	Moderate	2.1	Moderate
6. I have read and even synthesized research and journals about Radio-Based Instruction.	2.9	Moderate	2.8	Moderate	2.6	Moderate
7. My colleagues know the behind and on-the-scene settings regarding Radio-Based Instruction.	3.0	Moderate	2.4	Moderate	2.6	Moderate
Total	**2.4**	**Moderate**	**2.6**	**Moderate**	**2.5**	**Moderate**

Overall, the data suggests that while there is some knowledge and experience with RBI among the teachers surveyed, there is still room for improvement in terms of their expertise and skills in implementing RBI.

4.6 The ratio between Learners and Materials
The data presented in Table 10 shows the utilization of Radio-Based Instruction in terms of the ratio between learners and materials. The mean scores of all the items are in the moderate range for all three schools, indicating that there are some areas for improvement in this aspect of RBI implementation.

In terms of providing radios, School C had the highest mean score of 2.5, which suggests that the school has a reasonable ratio between the number of learners and radios provided by the school. In contrast, School B had the lowest mean score of 2.1, indicating that there may be a shortage of radios provided to the learners.

Table 10: Utilization of Radio-Based Instruction
in terms of Ration between Learners and Materials

Items	School A		School B		School C	
	Mean	Description	Mean	Description	Mean	Description
1. There is a reasonable ratio between the learners and the radios provided by the school.	2.4	Moderate	2.1	Moderate	2.5	Moderate
2. There are reasonable numbers of learners who will be using the Radio-Based Instruction.	2.4	Moderate	2.5	Moderate	2.4	Moderate
3. The school selected learners who will receive limited radio.	2.7	Moderate	2.2	Moderate	2.3	Moderate
4. Learners who do not receive radio from the school but their own for education.	2.6	Moderate	2.9	Moderate	2.2	Moderate
5. There is a difference between those learners provided with a radio and those who have bought their own.	2.9	Moderate	2.7	Moderate	2.4	Moderate
6. All learners are provided with a flash drive where recorded audio is saved for them to play.	2.4	Moderate	2.6	Moderate	2.5	Moderate
7. There are sufficient materials for all the learners in my class.	2.6	Moderate	2.4	Moderate	2.6	Moderate
Total	**2.6**	**Moderate**	**2.5**	**Moderate**	**2.4**	**Moderate**

Item 3 shows that School A had the highest mean score of 2.7, indicating that the school selected learners who will receive limited radio. This practice can be beneficial in ensuring that radios are given to those who need them the most. However, schools need to ensure that the selection process is fair and equitable.

Item 4 shows that School B had the highest mean score of 2.9, indicating that learners who do not receive radios from the school have their own for education. While this is a positive development, it is still important for schools to ensure that all learners have access to radios and other necessary materials for distance learning.

Overall, the data suggests that schools need to ensure that there are sufficient materials for all learners, and that there is a reasonable ratio between the number of learners and materials provided. Additionally, schools should consider implementing practices like limiting radios to those who need them the most, while ensuring that the selection process is fair and equitable.

4.7 RBI Production

Table 11 shows the results of a survey regarding the utilization of radio-based instruction in terms of RBI production. The mean score for all items in each school is in the high range, indicating a positive response from the respondents.

Table 11: Utilization of Radio-Based Instruction in terms of RBI Production

Items	School A		School B		School C	
	Mean	Description	Mean	Description	Mean	Description
1. I can independently secure a properly produced recording for my learners.	4.0	High	3.2	High	4.0	High
2. All lessons for the subject per week are produced through radio and delivered to learners.	3.9	High	3.5	High	3.6	High
3. There is a standard checking schedule of available audio material for the learning area for the week.	3.2	High	3.3	High	3.9	High
4. The script for the radio-based Instruction is checked in line with its quality and accuracy.	4.0	High	3.9	High	3.5	High
5. Audio recordings or live audio are monitored after learners have listened to them.	3.4	High	3.6	High	3.8	High
6. I have been given ample time to finish my script writing and recording tasks.	3.8	High	3.5	High	4.0	High
7. Produced audio run-through quality assurance to check information validity.	3.5	High	3.9	High	3.5	High
Total	**3.7**	**High**	**3.6**	**High**	**3.8**	**High**

In terms of securing a properly produced recording for learners, School A and School C had a mean score of 4.0, which indicates a high level of agreement among the respondents. Meanwhile, School B had a slightly lower mean score of 3.2, but it is still within the high range.

All schools had high mean scores for producing all subject lessons through radio and delivering them to learners, with School A having the highest score at 3.9. Schools A and C had a mean score of 3.2 and 3.9, respectively, for having a standard checking schedule of available audio material for the learning area for the week.

In terms of checking the script for quality and accuracy, all schools had high mean scores, with School A having the highest at 4.0. Audio recordings or live audio monitoring after learners have listened to them had a mean score in the high range for all schools.

In terms of finishing script writing and recording tasks on time, School C had the highest mean score at 4.0, while Schools A and B had scores of 3.8 and 3.5, respectively. Finally, produced audio run-through quality assurance to check information validity had a mean score in the high range for all schools.

To sum up, the results suggest that the production of Radio-Based Instruction in the surveyed schools is generally positive, with high mean scores across all items. It also

implies that the respondents agreed that the RBI production process is efficient and effective in providing learning materials to the learners.

4.8 Utilization

The data in Table 12 shows the utilization of Radio-Based Instruction in three different schools. The mean scores for each item are all in the high range, indicating a positive perception of the utilization of Radio-Based Instruction.

Table 12: Utilization of Radio-Based Instruction in terms of utilization

Items	School A		School B		School C	
	Mean	Description	Mean	Description	Mean	Description
1. The Radio-Based Instruction is utilized in this school.	3.2	High	3.4	High	3.2	High
2. All the lessons in my subject have been delivered to learners through radio.	3.4	High	3.5	High	3.5	High
3. All my learners learn through the radio.	3.1	High	3.6	High	3.4	High
4. The school supports the utilization of Radio-Based Instruction over self-learning modules.	4.0	High	3.8	High	3.1	High
5. All the teachers encourage their learners to learn the lessons through the radio.	3.7	High	4.0	High	3.8	High
6. Learners support the use of Radio-Based Instruction.	3.9	High	4.0	High	3.9	High
7. Community members and local government units support Radio-Based Instruction.	3.5	High	3.4	High	4.0	High
Total	**3.5**	**High**	**3.7**	**High**	**3.6**	**High**

The schools report that Radio-Based Instruction is being utilized, with mean scores ranging from 3.2 to 3.4. All the lessons in the subjects are delivered to the learners through radio, with mean scores ranging from 3.4 to 3.5, and all the learners learn through the radio, with mean scores ranging from 3.1 to 3.6. The schools also report that they support the utilization of Radio-Based Instruction over self-learning modules, with a mean score of 4.0 in School A, 3.8 in School B, and 3.1 in School C.

Furthermore, the teachers encourage their learners to learn through the radio, with mean scores ranging from 3.7 to 4.0, and the learners support the use of Radio-Based Instruction, with mean scores ranging from 3.9 to 4.0. Finally, the community members and local government units also support Radio-Based Instruction, with mean scores ranging from 3.4 to 4.0.

Overall, the data suggests that Radio-Based Instruction is being utilized and supported in these schools, with positive perceptions from both the teachers and the learners, as well as the community members and local government units.

4.9 Academic Performance of Grade 7 Learners

The data in Table 13 shows the academic performance of Grade 7 learners in three different schools (A, B, and C). The table presents the number and percentage of learners in each performance category, which are Excellent (95-100), Very Good (90-94), Good (85-89), Fair (80-84), and Needs Improvement (75-79).

Table 13: Academic Performance of Grade 7 Learners

Description	School A (n=13)		School B (n=68)		School C (n=162)		
	F	P	F	P	F	P	
Excellent 95-100	1	8	4	6	13	8	
Very Good 90-94	1	8	30	44	52	32	
Good 85-89	5	38	32	47	85	53	
Fair 80-84	6	46	2	3	12	7	
Needs Improvement 75-79	0	0	0	0	0	0	
Total	13	100	68	100	162	100	243

School A had a relatively small sample size of 13 learners, with 100% of them falling in the Fair to Excellent performance categories. Specifically, 7.7% (1 learner) was Excellent, 7.7% (1 learner) was Very Good, 38.5% (5 learners) were Good, and 46.2% (6 learners) were Fair.

School B had a larger sample size of 68 learners, with 95.6% falling in the Good to Very Good performance categories. Specifically, 4.4% (4 learners) were Excellent, 44.1% (30 learners) were Very Good, 47.1% (32 learners) were Good, 4.4% (2 learners) were Fair, and none were in the Needs Improvement category.

School C had the largest sample size of 162 learners, with 88.3% falling in the Good to Very Good performance categories. Specifically, 8% (13 learners) were Excellent, 32.1% (52 learners) were Very Good, 52.5% (85 learners) were Good, 4.3% (7 learners) were Fair, and none were in the Needs Improvement category.

Overall, the data suggest that learners from School A, B, and C performed well academically, with the majority falling in the Good to Very Good performance categories. Additionally, the larger sample sizes of School B and C allowed for more representative data compared to School A, which had a smaller sample size.

5. Recommendations

The following recommendations were drawn based on the findings: The Department of Education may craft additional activities about using Radio-Based Instruction in teaching. The teachers may encourage using Radio-Based Instruction during this pandemic to improve the learners' performance and safety this time of the pandemic. Moreover, the school administrator may tap the potential stakeholders to sponsor the needed materials for the implementation of Radio-Based Instruction. Also, the Local Government Unit may support the radios required by the learners in their classes to ensure that the Grade 7 learners will utilize enough materials. Lastly, parents may encourage their children to attend classes through Radio-Based Instruction to gain more knowledge in learning the lesson.

In improving the quality of education: Schools need to focus on improving the quality of education by providing better resources and training to teachers. This includes providing access to appropriate learning materials and training teachers on how to utilize them effectively. Schools may also focus on increasing the number of qualified teachers, reducing class sizes, and improving teacher-student interactions.

Use of Radio-Based Instruction: The data indicates that Radio-Based Instruction is an effective mode of delivering education to learners, especially in areas where access to physical schools is limited. Therefore, it is recommended that schools in similar areas incorporate this mode of instruction, provided that the quality of audio recordings is ensured.

Addressing the gender disparity in academic performance: The data shows a gender disparity in academic performance, with females performing better than males. Therefore, schools should focus on identifying the factors that contribute to this disparity and implement appropriate interventions to address them.

Community support plays a crucial role in the success of schools. Therefore, schools need to engage the community actively in education and ensure their support in terms of resources, infrastructure, and cultural values that promote learning. The findings of this study highlight the need for ongoing research and evaluation of education systems. It is crucial to monitor the performance of schools and learners continually to identify areas of improvement and implement appropriate interventions.

In conclusion, the data presented in this study provides valuable insights into the state of education in the sampled schools. The recommendations made above aim to address the identified challenges and support the improvement of education quality and outcomes. Implementing these recommendations will require collaborative efforts from all stakeholders, including policymakers, educators, and the community.

6. Conclusion

The following conclusions were established based on the data gathered. The implementation of Radio-Based Instruction in Maitum District was very high in terms of Planning and Agreement, high in Information Dissemination and Feedback, Organization and Analysis, and Monitoring and Evaluation, while moderate in Budgeting and Materials. Moreover, the utilization level of Radio-Based Instruction in Maitum, Sarangani Province, was average in the Background of RBI and Ratio between Learners and Materials and high in RBI Production Utilization.

Based on the interpretations of the data provided in Chapter 3, it appears that Radio-Based Instruction is being utilized in all three schools, with high ratings in terms of RBI production, utilization, and ratio between learners and materials. It is also notable that the schools generally have moderate to high ratings in terms of the availability and sufficiency of materials for learners.

Regarding the academic performance of Grade 7 learners, School A has a smaller sample size than Schools B and C, but all schools have a high proportion of learners who fall into the Very Good to Good range. It is also worth noting that there are no learners in the Needs Improvement category, although this may be due to the relatively small sample size of School A.

In conclusion, these data suggest that Radio-Based Instruction is being effectively implemented in these schools, and that Grade 7 learners are generally performing well academically. However, it is important to consider that these interpretations are based on limited data and that further investigation may be necessary to fully understand the effectiveness of these educational programs.

To all whom, he owned the inspiration, his heartfelt thanks
All the glory is brought back to the Lord Jesus Christ the highest.

Conflict of Interest Statement

The authors affirm that they have no competing interests with regard to this study. Since there were no financial or interpersonal ties that might have influenced how the data were interpreted or reported, the study was carried out independently. The authors may rest easy knowing that none of the study participants suffered injury. Additionally, the researcher, who had no power or influence over the respondents, forced them to take part in the survey. No proof existed that the respondents to the study were given false information concerning any possible risk. Participants' rights in studies must be zealously upheld.

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