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**Kagawaran ng Edukasyon**  
Tanggapan ng Pangalawang Kalihim

**AIDE MEMOIRE\***

10 April 2021

**THE PROPER USE OF DEPED RADIO  
AS A BLENDED DISTANCE LEARNING DELIVERY MODALITY**

**I. Introduction**

The Department of Education (DepEd) has made use of radio-based instruction (RBI) mainly as one of the options to reach learners in the Alternative Learning System (ALS) program. Primarily used as a form of distance learning to teach learners who are unable to attend face-to-face lessons or who are in remote areas, radio-based instruction enables them to continue their education despite these challenges. Through the years, radio-based instruction has reached out of school youth (OSY), persons deprived of liberty (PDL), persons with disabilities (PWD), working students, indigenous peoples (IP), farmers, and others who are unable to attend day-to-day classes.

As a response to the disruption of classes brought about by the COVID-19 pandemic, DepEd launched the use of Blended Learning Delivery modalities. This was stipulated in DepEd Order (DO) 12, s. 2020 "Adoption of the Basic Education Learning Continuity Plan for School Year 2020-2021 in Light of the COVID 19 Public Health Emergency" pages 31-32.

DO 12 defined learning delivery modalities and classified them as (a) face-to-face learning, (b) distance learning and (c) blended learning. Blended Learning is defined as a learning delivery that combines face-to-face with any or a mix of online distance learning (ODL), modular distance learning (MDL), and TV/Radio-based Instruction (TV/RBI). For purposes of this aide memoire, the television and radio will be discussed separately as two different platforms.

The Distance Learning Delivery Modalities (DLDM) framework as discussed in DMC I Memo 162, s. 2020 "Suggested Strategies in Implementing Distance Learning Delivery Modalities" is in support of DO 12, s. 2020 and clarified that blended distance learning is any combination also of ODL, MDL, TVI, and RBI where the appropriate printed or digitized self-learning modules are available for all learners.



**Office of the Undersecretary for Administration (OUA)**

[Administrative Service (AS), Information and Communications Technology Service (ICTS), Disaster Risk Reduction and Management Service (DRRMS), Bureau of Learner Support Services (BLSS), Baguio Teachers Camp (BTC), Central Security & Safety Office (CSSO)]

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Schools which adopt any of these combinations must meet the requirements of each type of distance learning.

Critical for implementation will be the production of the needed teacher's and learner's learning materials (DepEd Learning Resources [LR] Portal and DepEd Commons will be maximized), as well as the support of media institutions like TV and radio stations.

Guided by the call **“Learn by all means. Teach by all means,”** Blended Learning focuses on learner development while **making use of all available delivery modes to reach learners in different situations across the country.** Currently, there are still many areas in the Philippines that do not have internet connectivity, and free, cable and satellite television services. Areas that are off-grid cannot use television and other electrical gadgets. This remains a big challenge in the delivery of education, even before the pandemic, and the same has been highlighted at this time.

## II. DepEd Radio as Part of Blended Learning

In SY 2020-2021, DepEd TV had successfully produced TV episodes under the Office of the Undersecretary for Administration-Information and Communications Technology Service's (OUA-ICTS) management in collaboration with the Office of the Undersecretary for Curriculum and Instruction (OUCI.) The episodes are aired over national TV and in DepEd's social media pages. These TV episodes are also uploaded in the DepEd Commons for easy access. Hence, the DepEd TV has an organization structure from planning, production, quality assurance, airing, to monitoring and evaluation and research.

In response to the challenge of limited accessibility to learning modalities, DepEd has included in its Blended Learning framework the use of radio as a modality **to reach learners who have limited or no access to the more popular online and television-based lessons.** Traditionally, radio is used in information dissemination, and families maintain battery-operated AM/FM transistor radios and other modes of radiobroadcast in areas without electricity.

Currently, DepEd Radio makes use of the already established local AM/FM radio stations in all areas of the Philippines through partnership with the department's regional and division offices and even schools. Lessons are broadcast over partner radio stations or through ragtag radio stations established in regional/division offices and schools, reaching learners who have no ready access to the other learning modalities.

The OUA-ICTS in partnership with the OUCI shall form the CO organization structure for DepEd Radio from planning, production, quality assurance, airing, to monitoring, evaluation, and research. This CO structure must interface with counterparts across the governance levels at the regional and division offices.



### III. When to Use DepEd Radio in Relation to the Other Platforms

With the definitions and types of blended distance learning discussed in DO 12, s. 2020 and DMCI 162, s. 2020 and the institutionalization of DepEd TV, this aide memoire focuses on the proper use of DepEd Radio, apart from and separate from TV, with the use of printed self learning modules (SLMs) in relation to the other available platforms.

Schools and homes in communities that are off-grid shall use DepEd Radio with the printed SLMs as a blended distance learning delivery modality. Print-based self-learning modules take on a more traditional approach where schools distribute copies of printed learning materials for their students to use at home. Digital copies of these modules are also resorted to for those with computers and mobile phones without connectivity. The digital copies are provided via USB flash drives and dongles.

For online learning, the **DepEd Commons was brought forth for the use of learners and teachers who have internet connectivity.** Essentially, DepEd Commons is used and maximized by those who have access to internet via their desktop computers, laptops, tablets, and mobile phones. Its whitelisting by Smart, PLDT, Globe, and all other mobile phone telecommunications companies made access to the platform free of charge whether or not one has data load in one's mobile phone.

While the number of unique users of DepEd Commons rose to 6-8 million (10,351,884 as of April 7, 2021), it still do not cover all of the more than 26 million learners throughout the country, as only 67% of the entire Philippines has internet and data connectivity.

This is where the television-based modality DepEd TV comes in. **DepEd TV was conceptualized to bring educational content to learners and households who have television sets and watch television programs via antenna for free tv, via cable tv networks, via digital tv boxes, and via satellite dishes direct to home tv.** Data shows that DepEd TV can reach around 16 million learners who have access to television in the confines of their homes.

**DepEd TV and DepEd Commons platforms are recommended for areas, households, and learners who have access to internet and data connectivity.** If they have cellular connectivity, they can access DepEd Commons freely and download all open educational resources (OERs) and DepEd TV episodes there without cost. If they have television sets and digital tv box subscriptions or cable networks, they can watch DepEd TV via IBC-13. If they are Cignal and SatLite subscribers, they can watch DepEd TV even if they do not have load.

Teachers, learners, and parents in urban areas and municipal town centers can easily use DepEd Commons and DepEd TV as these areas have internet and data connectivity. **There is no need for them to access DepEd Radio as DepEd Commons and DepEd TV are the platforms that allow for more teacher-learner interaction.**



Internet and data connectivity can also be used for access to the DepEd Learning Management System (DLMS), DepEd Educational Technology Webinars (ETUlay), DepEd TV YouTube Channel, and DepEd TV Facebook Page, among others.

But even with the combined efforts of DepEd Commons and DepEd TV, there are still areas that have no access to these platforms for their education. Thus, DepEd Radio was conceptualized to address this issue.

**Areas which do not have internet and data connectivity would then be served via DepEd Radio** which reaches learners through radio stations established either at the region or division offices or in schools, through plug-and-play radios with USB port/s, and the use of handheld two-way radios. SLMs can be used together with DepEd Radio.

#### **IV. The Way Forward for DepEd Radio**

##### **A. School-based Radio Stations**

DepEd plans to establish **DepEd Radio FM stations by clustering schools in a 25-50 kilometer radius, with one strong FM station at the center school** which will air lessons to those within its coverage who have no internet and data connectivity. **Only one school, usually the high school at the center or highest point, will have an FM station and all the other schools within the 25-50 kilometer radius coverage will be beneficiaries of the school-based FM station.** Teacher-broadcasters from the schools belonging to the same cluster may then be mobilized to broadcast lessons in the host school based on a commonly agreed upon schedule.

The department chooses to make use of FM (Frequency Modulation) stations over AM (Amplitude Modulation) stations for the following reasons:

1. FM stations have the advantage of power and bandwidth efficiency;
2. high noise immunity;
3. less susceptibility to interference;
4. excellent stereo audio quality;
5. easier setup of antenna system (FM stations use free-space propagation compared to AM stations which rely on ground propagation); and
6. cost efficiency in implementing antenna tower (FM antenna can be installed on existing tower facilities or tall buildings with the required antenna height compared to AM antenna which requires at least 10-15 square meter land area with good soil conductivity.)

The Schools Division Office (SDO) through the Curriculum Implementation Division (CID), the School Governance and Operations Division-



School Management Monitoring and Evaluation (SGOD-SMME), and the Office of Student Development and Services-Information Technology Officer (OSDS ITO) will collaborate with one another to finalize the broadcast arrangements. This kind of arrangement would strengthen inter-school collaboration and cooperation, and would make teaching easier, avoiding duplications or reinventions.

**Regional and Division Offices and schools that are already using DepEd Radio should submit a status report**, which should include the number of episodes aired and the effectiveness of the platform based on their experience. This will be used for inventory and evaluation purposes and will be included in the application of temporary permits to operate from the NTC. Currently, only the CO is authorized to apply through its partnership with the NTC.

Likewise, Regional and Division Offices and schools with existing partnerships with LGUs and/or commercial or private AM/FM stations should submit status reports. The reports should indicate if such established radio stations have existing permits to operate.

All status reports should be submitted to Engr. Ofelia Algo of the Information and Communications Technology Service (ICTS) via email [ofelia.algo@deped.gov.ph](mailto:ofelia.algo@deped.gov.ph).

## **B. Handheld Two-way Radios or Walkie-Talkies**

Even if DepEd is able to establish DepEd Radio FM stations in schools, not all areas can still be covered by their broadcast. **Those areas with Last Mile Schools which cannot be reached by the 25-50 kilometer radius coverage area would now be served using handheld two-way radios or “walkie talkies.”** These schools would each be given sets of walkie-talkies to be able to reach learners who are 3-5 kilometers away from the school. Paired with DepEd printed modules, teachers are able to guide their students and answer their questions real-time. The combination of the two modalities, printed modules and hand-held radios, enable the effective delivery of lessons even in the absence of online options, television and radio broadcast services.

The sets of walkie-talkies will have assigned frequencies dedicated to their specific areas. Schools situated near one another in clusters of 5-15 kilometer radius will be provided with unique frequencies in order to avoid confusion over broadcast interference from one school to another. In the same manner that division offices and district supervisors will agree to broadcast arrangements for one FM station to accommodate several teacher-broadcasters from different schools, they will also assign particular frequencies to specific schools in the district or cluster to avoid confusion and interference.

Because of its interactive feature where teachers and learners can communicate real time and where other learners can listen and participate in



such interactions, **walkie-talkies are far more superior to FM stations in schools as these radio broadcasts do not have the same interaction as what walkie-talkies provide.** But why do we still need the FM stations in school if walkie-talkies are better in terms of interactivity? **The FM stations in schools are still needed because of its 25-50 kilometer reach. This feature is needed especially for high school learners** whose homes are usually more than 5 kilometers away from their school. Walkie-talkies have a limited coverage of 3-5 kilometers.

### **C. Plug-and-Play Radios with USB Port/s**

The use of RBI as a distance learning delivery modality can also be implemented via affordable **plug-and-play radios with USB port/s that do not only receive broadcasts but can also play recorded audio files.** With a plug-and-play radio, RBI lessons do not actually require live radio broadcast, though it is capable to receive such. It just needs a copy, saved in a USB flash drive, of the RBI lessons or audio files. With that, **learners can listen to their lessons which they can repeatedly listen to until they fully understand and master them,** without the constraint of possible signal interferences or absence of broadcast. The use of USB flash drives for RBI is no different in the use of the same item to provide digital files for learners with computers and mobile phones but without connectivity.

### **D. High Frequency Base and Handheld Radios**

The Disaster Risk and Reduction Management Service (DRRMS) has already started deploying high frequency two-way handheld radios in regions and divisions for coordination and reporting during calamities and emergencies. The program will be beefed up in order for the regional and division offices to communicate with one another by expanding its coverage to Public School District Coordinators (PSDS) who are stationed in areas without cellular phone signals and outside of the 3-5 kilometer distance effective coverage of walkie-talkies, not just for DRRM concerns but also for RBI.

## **V. Proper Use of DepEd Radio**

The appropriate approach in implementing DepEd Radio as a learning modality is articulated in the Blended Learning Framework and should guide field implementation to ensure effective complementation of modalities and efficient use of resources. **Schools with clear cellular signal and available data connections should prioritize DepEd TV and DepEd Commons modalities** before they explore DepEd Radio. This is to maximize the more dynamic available modes for the benefit of learners. **Only those areas without internet and data connectivity and not reached by television signals should resort to undertaking DepEd Radio** (which includes FM station in schools, plug-and-play radios with USB port/s, or walkie-talkies.) Resources are wasted through duplication if learners who have access to



DepEd TV and DepEd Commons via their connectivity are compelled to listen to the same lessons in DepEd Radio when the same lessons are better explained in DepEd TV and DepEd Commons. DepEd Commons, in fact, has OERs and TV episodes that are downloadable and can be repeatedly watched and read at any given time.

As such, schools in urban areas and rural town centers where internet and data connectivity are more reliable must not be instructed nor compelled to implement radio-based instruction. Schools, on the other hand, must evaluate the need for a school radio station to avoid wasting resources for the sake of compliance and points in performance ratings.

At this point, it is important to define the **roles and responsibilities of radio stations that have been established in schools** to clarify their functions. What should be done to these radio stations already initiated by superintendents, supervisors, and/or principals prior to the definition of the DepEd Radio framework, even if their areas have clear access to internet and data connectivity and television signals? Hereunder are points to be considered:

1. The existing radio stations established in schools must remain non-political, non-partisan, even if funded by the LGU and/or partisan entities. Here lies the liberty of having a DepEd Radio funded solely by DepEd.
2. The school should serve as a hub for broadcasting radio-based lessons to schools that are within the coverage area of the station but have no internet, data, and television signals.
3. Schools with radio stations should serve as a center for training teachers from nearby schools in delivering radio-based instruction in areas that have no internet, data, and television signals.
4. Radio stations already established in schools can act as relay stations of the DepEd Central Office-initiated radio stations within identified clustered areas.
  - a. As relay stations, these existing radio stations inside schools will rebroadcast materials produced by Central Office; and
  - b. The relay stations will allocate a particular time and schedule to air rebroadcast materials produced by Central Office.

It is also important to consider the preference of those learners deprived of liberty, persons with disabilities, working students, indigenous peoples, farmers, and others who are unable to attend day-to-day classes and opt to listen to radios since it is still the most practical and accessible modality for them even though internet and cellular phone signal is available. But even if learners in these circumstances still prefer RBIs, DepEd must encourage them to use and maximize the other available technologies present in their areas and not just be contented with radios.



The regional and division offices should be able to map out in their respective areas of coverage learners who prefer RBIs over other available modalities. They can establish one radio station that will cover areas where these types of learners are residing, or may be able to identify existing radio stations which can be used for such purposes.

Transistor radios, plug-and-play radios with USB port/s, and walkie-talkies should take advantage of solar panels for their energy requirements. There are many models that are already solar-powered. Some walkie-talkies can even receive FM broadcast services.

## **VI. Compliance with Existing Laws**

**All existing DepEd Radios in schools, divisions, and/or regions must seek Temporary Permits to Operate from the National Telecommunications Commission (NTC.)** They must have the proper and appropriate permits before starting to legally broadcast. The DepEd offices and schools must strictly adhere to the requirements of the law. Radio frequencies, whether AM or FM, are very limited, are owned by the state, and are highly regulated to enable non-interference and smooth flow of broadcast.

Because the radio stations will be used for education does not mean they are already exempted from registration and compliance with laws and NTC rules and regulations. Thus, it should not be the norm. All radio stations in schools should be registered with the NTC. DepEd must set the example in complying with laws. The same applies even if the LGU is supporting the radio station or even owns it. DepEd must comply with NTC rules and regulations.

For help in the application of registration of these already established radio stations, regional/division offices and schools may coordinate with Engr. Ofelia Algo of the Information and Communications Technology Service (ICTS) at [ofelia.algo@deped.gov.ph](mailto:ofelia.algo@deped.gov.ph) and 09088782413.

## **VII. DepEd Radio for Mother Tongue-Based Multilingual Education and the Contextualization of Content**

Aside from the technical aspect of implementing DepEd Radio, it is also important to emphasize contextualization of content to avoid duplication in the production of materials. **The undertaking of Mother Tongue-Based Multilingual Education (MTB-MLE) materials can be used for DepEd Radio instruction.** Given that Central Office-led DepEd TV materials use mainly English and Filipino languages in its episodes, DepEd Radio on the other hand has enough flexibility to easily accommodate the use of local languages and dialects in the delivery of lessons to learners. The real time nature of using DepEd Radio and handheld radios in the teaching-learning process will also enable teachers to contextualize content for their learners.





DepEd TV Episodes may be dubbed in local languages and dialects to broadcasting in the local radio stations, an easier way to do RBI instead of creating new audio episodes when existing tv episodes are already made. Dubbing refers to the changing of the original spoken language in the TV episodes and replacing it with the same content but in the local language or dialect.

When used correctly and in combination with other modalities in the Blended Learning framework, DepEd Radio can be an effective and reliable tool in ensuring the continuity of education in times of pandemic, calamities, conflict, and other situations that disrupt normal, face-to-face classroom learning.

## **VIII. Conclusion**

Judicious use of resources especially during this pandemic calls for the prudent establishment and implementation of DepEd Radio by DepEd field units. Urban areas and municipal town centers with internet and data connectivity, and television broadcast services are better served by DepEd TV and DepEd Commons with episodes produced by the Central Office. In the same vein, school tv studios should not repeat the MELCs-based DepEd TV Episodes already produced by the Central Office and should focus instead on producing contextualized materials and episodes that supplement the MELCs-based materials to avoid reinvention of the wheel and repetition of episodes. DepEd TV Episodes, as appropriate, may be dubbed in local languages and dialects for broadcast in the local radio stations, an easier way to do RBI instead of creating new audio episodes when existing tv episodes can be maximized as base material.

**DepEd Radio may only be established and used in areas without internet and data connectivity and television signals.**

DepEd Radio is implemented through the **establishment of FM stations that will serve a cluster of schools within a 25-50 kilometer spread in areas** without internet, data, and television connectivity and services. Not all schools should establish radio stations, one in every 25-50 kilometer radius spread is enough. **This also includes the provisions of plug-and-play radios with USB port/s and the provision of sets of walkie-talkies to the Last Mile Schools.**

Together with locally-established television and radio stations in offices and schools, **DepEd Radio platforms can be used for MTB-MLE and contextualized RBI.** This is to avoid duplication of efforts for the same content which are already made available through other modalities.

The DepEd Radio team at the Central Office has been advised to produce radio scripts to serve as guides for all those doing RBIs for all MELC modules and to produce radio materials to standardize sound feeds and effects, station IDs, etc. The team will also conduct trainings on radio broadcasting for teacher-broadcasters, e.g. principles of radio broadcasting for education; language used in radio broadcasting; basic radio program formats; radio production elements; proper use of voice; effective interviewing skills; writing for radio; and ethics in



radio broadcast. Standard script forms for different formats of radio broadcast will be part of the output of the participants. Trainers will come from current and former practitioners in Philippine radio who are skilled in training non-broadcasters. This radio broadcasting training ensures more efficient ways of implementing the DepEd Radio program.


Schools implementing the Special Program in Journalism (SPJ) and other schools with excellent performance in radio broadcasting during the National, Regional, and Division Schools Press Conferences (NSPC, RSPC, and DSPC) will also be involved in the DepEd Radio team, including School Paper Advisers who have undergone training in the field of radio broadcasting.

While various modalities are being undertaken by schools in our collective effort to reach all learners, the ultimate key to successful implementation of any modality is **achieving the K-12 Curriculum Standards**. Standards direct the content to be covered and are the main reference in aligning contextualized learning delivery and classroom assessment, thereby providing flexibility for teachers to be responsive to diverse contexts while ensuring that all learners reach the same standards, wherever they are. This is consistent with DO 21, s. 2019 which defines standards as something which can serve as basis in determining the accuracy and to estimate the quality or quantity of a certain activity, program, etc. in relation to what is expected from an individual working in the education arena.

The flexibility of the K to 12 Curriculum that is maintained by the MELCs allows to accommodate the varying contexts of learners, teachers, learning environment, and support structures considering the emergency health crisis as reflected in both the content and performance standards.

Thus, the appropriate use and combination of various learning modalities is a critical component to deliver the needed education in this time of crisis, to ensure that learners learn through and by all means.

For guidance and reference.

  
  
**ALAIN DEL B. PASCUA**  
Undersecretary

\* With contributions from CI Strand,  
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