

Techniques for using instructional media to enhance the professional competence of vocational education

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ABSTRACT: *The Covid-19 situation has forced vocational colleges to change their teaching and learning management. Vocational learning materials are set to operate in accordance with four main policies: On-site, On-air, Online and On-demand. There will be additional from the policy of the Ministry of Education in the section called On-hand. In addition, the techniques for using learning materials in various ways were also formulated into the four types of learning management methods. This is to ensure that the teaching and learning in vocational education can be carried out effectively, upgrading the learning management based on the competency of vocational education to be able to operate continuously.*

Keywords: Online Learning, Instructional Media, Vocational Education

1. Introduction

The policy of using learning materials during the Covid situation in teaching and learning in accordance with the 20-year long-term policy, namely Thailand 4.0, has clearly stated the issue of agriculture. This policy has clearly stated the area of agriculture. It will develop the country in a direction known as smart farming, which is the adoption of smart agriculture to transform the next generation of farmers. This is especially important for teachers in the College of Technology and Agriculture affiliated with the Vocational Education Commission (Chan-o-cha, 2017). Vocational education learning media has four main policies: On-site, On-air, Online and On-demand, which will be added from the Ministry of Education's policy in the part called On-hand. We must manage learning in such a way that if we must stay at home, how must farmers learn? This is about the technique of using learning materials and how it will affect professional competency. As for the policy, vocational education now wants to produce students who can work, especially in the field of agriculture. Thailand is a country that is mainly agricultural and wants to give people the potential and ability to live in the modern era after the New Normal has passed. Vocational education must continue to develop in the direction of creating learners who have practiced the tools in the direction of learning with modern technology. These are clearly defined vocational policies (Puriwat & Tripopsakul, 2020).

The Minister of Education has stated that there are three main policy frameworks to drive education in the Ministry of Education. The first framework is TRUST. TRUST is the first learning framework which is the adoption of appropriate and relevant technology for student-centered development. As for the 12 policies, the most important and directly related to vocational education is the issue of manpower production, especially in agriculture, to be up to date with the changes in the present era. The policy framework called Quick Win is an urgent matter that needs to be done. This framework is very clear in all Ministry of Education's policy to modify the curriculum to all competency-based courses. In fact, in the vocational section, there has been a long-standing process of competency-based courses. Vocational is leading the competency-based curriculum. Therefore, now the whole country's policy will turn to the

same curriculum that vocational courses have been teaching for a long time, that is, competency-based courses. As for vocational education, this is probably not new, we know this very well. We learn how to enable our students to be able to learn and be able to act in their careers. What subjects did you study and what should you do? This is what vocations are known for in what is known as a competency-based curriculum (Wannapiroon, Nilsook, Jitsupa, & Chaiyarak, 2022). At present, the main policy of the Ministry of Education in the curriculum of the Office of the Basic Education Commission is the same. It has changed the curriculum to be competency-based, which will be in line with vocational education. Because when students have studied to the vocational level, then they will understand what a competency-based course is. At the same time, the policy of the Office of the Vocational Education Commission has a policy to drive vocational training in accordance with the policy framework of the Ministry of Education in three frameworks. The first is to unlock the barriers to vocational education management. The second frame is a matter of modification. It will develop and adjust the curriculum and teaching management to be up to date. The vocational course has been modified to use the new curriculum for the year 2019 since the last year's covid situation in the year 2020. This is a great opportunity for us to shift our teaching and learning management to online teaching and thus the curriculum has been adjusted to be modern and consistent (Rintala & Nokelainen, 2020). The third frame is openness. It is open for enterprises to participate in teaching and learning management, which is very important that teaching and learning management must have an establishment to be involved. This is the heart of teaching and learning, whether it is organized in a bilateral form or that the learners can go to internships in various enterprises where vocational education has already been done. Therefore, the main policy of vocational operations in these three frameworks will be clear as well that we are entering an era called Eco System College.

What is Instructional Media for Vocational Education? The Office of Vocational Education Standards has established five techniques and standards of Instructional Media for Vocational Education which have been modified to be more in line with the present era. Instructional media of vocational education institutions in the past will focus on the form of printed media such as materials and equipment, methodological technical media, audio-visual media, animated media and computer media as well (Nilsook, Chatwattana, & Seechaliao, 2021). At present, the format of such media has been adjusted to be digital media in all five types to comply with the current policy of the Office of Vocational Education. On-site media is about the techniques and methods of applying the techniques of print media and materials. On-air media is the dissemination of visual and audio media through satellite radio television stations to radio stations of vocational institutions. On-demand media will be YouTube and various online media that learners can learn. Therefore, the most prominent media in the Covid era are online media. This is because the principle of On-hand is a combination of On-site and On-demand by sending various textbooks, teaching materials, worksheets or publications onwards for students to read due to being unable to attend college (Prihantoro, 2020).

The main learning materials of vocational institutions that are consistent with the policy of the Office of Vocational Education in terms of teaching and learning in this coronavirus epidemic situation is on-site format. This is the second year that this concept has been adopted as the main idea of the Ministry of Education. This means that if teaching at the college must be done or if there is a need to be on-air that is through radio, what must be done? In addition, in the part of online learning, how will there be a method of teaching and learning? In the past year, more than 70 percent of teachers in vocational institutions have used an online system for teaching and learning. In the On-demand part, it is learning from various applications such as learning via YouTube via mobile phone. On-hand, this is the Ministry of Education's policy if learners are unable to study online or do not have other learning tools. Therefore, they must rely on textbooks sent by the Ministry to learners to use exercises and worksheets. Although the teaching and learning management of vocational education has already used On-hand with On-site, it is still considered that this system has been used together in On-site and On-demand as well. This is the nature of the main structure of learning management and teaching materials at present. It can be considered that the present is a special period where we have not been in a normal situation for the second year and this situation may prevent students from returning to normal college (Wannapiroon, Nilsook, Jitsupa, & Chaiyarak, 2021).

According to the policy of the Office of Vocational Education, if some educational institutions need to be open to allow learners to practice practically in educational institutions, learning materials must be provided. This is the decision-making authority of the educational institution and the province in which the institution is located to organize laboratory teaching activities for certain students or for certain subjects in the educational institution. This is called On-site, which must provide an appropriate distance for learning. This kind of teaching is called Blended Learning or Hybrid Learning, which is both on-site and online, such as alternating study time, switching time intervals into small groups, etc. In such a case, the highest or intensive measures are taken to care. This is a policy that has not been changed since the beginning. But if the school is closed, of course, is according to the Ministry of Education's

policy to open a semester, any educational institution is not ready, must use the method to study online at all. Teaching will focus on teaching online in the theory part and will focus on teaching with various technological media such as e-books, e-learning, etc. Then use the method of learning through a system called Real Time, which may be used by programs like Zoom, Google Meet, Microsoft Team or others. Then the assignment method is used, with each assignment it is important to monitor and assess the student's progress. As mentioned above, it will be a matter of the timetable and schedule of each college that must be implemented if students will not bring students to study in the academy is to close the school and will focus on online. This is the framework of the policy that defines it.

In the case of students who are either in the regular semester or studying in the Dual Vocational Education system, they must go to the internships. This policy has already controlled they must comply with the measures prescribed by the government agency. Most importantly, whether a student is going to an internship or going to a bilateral establishment or college, the consent of the student and parent must be obtained. All educational institutions must be closely monitored because of the current situation as we know the number of people who are sick or infected has increased dramatically. If any college sends students to do internships, they must closely monitor the students. In the case of vocational training, the college has its own rules for doing this. If no action has been taken, for example, students have not been sent out to practice vocational experience and the workplace has problems from Covid, educational institutions will delay sending students who have received experience training. This is a case that hasn't been done yet. As for the use of media in order to comply with the policies and situations that arise, the most important thing to focus on in online teaching is that the teachers are already ready. The thing that teachers have continued to do over the past year is to focus on teaching online. Vocational colleges also focus on using online teaching and learning (Joosten, Lee-McCarthy, Harness, & Paulus, 2020).

Online teaching and learning can be used well with teaching and learning that focuses mainly on theoretical content. It will focus on two parts: Real Time Online teaching and On-demand teaching. However, teaching in a practical format still adheres to the approach of on-site teaching. This means that as the situation unfolds or in the area where teachers live, the spread of the coronavirus has decreased and the need for students to come to the college to practice. In this situation, on-site teaching is used. In the past year, it has performed well. There are two types of online teaching: Blended Learning, which is a combination of online or online real-time, and Face to face, which involves meeting face-to-face students at the school. This is called On-site. This is a guideline for managing vocational education during the coronavirus situation (Vandeweyer, Espinoza, Reznikova, Lee, & Herabat, 2021). As for teaching and learning that has been taught both online, on-demand, on-hand, etc., how do we measure and evaluate learners? The principles and guidelines of the vocational institutes are focused on measuring and evaluating immediately after completing the course. Because if it is an online system, sometimes when the course is finished, the learner may not have the time, or the learner will not care about what to do after studying. Therefore, the idea is to provide immediate evaluation, known as post-teaching assessment. At the same time, if it is necessary to assess the overall picture in each semester, a final exam will be held or provide a professional standard assessment called VQ, it will use the school's area to manage the exam or assessment. This will depend on the case whether the epidemic situation of COVID has been resolved or not. For example, if the epidemic area is not large, it can be allowed to take the examination at the college. But last year and this year, the Vocational Institute has decided to cancel the V-net exam in order to keep all students safe and at the same time improve the new measurement method by adjusting from V-net to VQ. In V-net, it focuses on exams to measure theoretical principles, but in VQ, it focuses on exams and evaluation of professional standards. Each college can choose which part of the assessment will be used. Many private vocational colleges also have tests in order to use the results for Self-Assessment Report (SAR). But in vocational institutions, measurement and evaluation will focus on evaluating teaching of each time, emphasizing the assessment based on actual conditions. This is the policy and framework of vocational education management. Therefore, all of these are part of the policy and focus on the development of educational institutions to be ready and excellence. In the agriculture sector, how can we create more specialized excellence and expertise of each college and build partnerships with the private sector? What skills are required to be re-skilled, must be improved, must be developed, and what skills are new - skills? Especially in the Covid era, where there are a lot of new skills that are online, which vocational courses have adjusted somewhat, aiming to meet the needs of the country (OECD, 2021).

How can vocational teaching materials such as On-site, Online, On-air, On-demand be done? This calls 4On, which is the main policy of vocational education. All this will answer the question of professional competence in each field and try to answer the question of student development in the 21st century. The most important focus is that vocational graduates must have a hundred percent job. This is not a problem for vocational institutions, but most of the problems are the insufficient number of vocational learners, especially in the agricultural sector where there are not many learners. Therefore, the development of learners can be done in many dimensions, each college can

implement such policies in order to manage vocational education in accordance with the national policy (The Office of the Education Council, 2016).

Thailand Vocational Education Eco-System (TVE2S) is a new dimension of vocational education that aims to produce and develop human capital excellence with the Human Capital Excellence Center. Vocational education HCEC unlocks the legacy of teaching and learning that does not meet the needs of working in the changing situations of the Thailand 4.0 model. The legacy system has created a skill gap that is insufficient for real work. The modern system will adapt to the needs of the domestic labor market to open by joining forces with the national and private sectors to prepare teachers to develop manpower to achieve excellence in each academic field. This modern system will cooperate with leading entrepreneurs both nationally and internationally to develop courses in the form of one private-to-one college in seven key industries: petrochemicals, digital business technology, robots for the modern agricultural industry, aviation industry, modern rail and automotive industry hotel and service business. The model will be distributed to more than 100 HCEC vocational centers across the country, enabling teachers, students and manpower in the agro-industry and services sectors to Re-Skill and Up-Skill. When the public and private sectors develop knowledge together with educational institutions, it will enable educational institutions to excel, eventually creating human capital of excellence. Personnel entering the labor market will have all 5 skills, proficient skills that can work immediately and have soft skills, have the mental and emotional skills that are in line with the world of work that can create more value and income. This allows the industry to obtain quality manpower that meets their needs. It reduces teaching and trial times and can also increase productivity and produce better results. When the industrial sector is strong, Thailand will have more potential to compete with the global market. We believe that quality products come from quality people. Quality people come from quality teachers, and quality teachers come from quality vocational education management to be able to develop Thai vocational education to the TVE2S and HCEC (Sethakul & Utakrit, 2019).

On-site

The concept of student development of various vocational schools follows the same direction, which is to adhere to the “4 On” principle. The details of each “On” will lead to what goals and how to do that, let's see. The first part will be vocational learning media in an on-site manner. On-site, this does not mean that this type of vocational media can be used only when learners come to use the educational institution's space, but also means the management of distance learning. Methods of teaching and learning will focus on 2 aspects, namely the printed media and the technical method. This will be in accordance with vocational education policies, including project-based learning, STEM Education, STEAM and Imagineering. These methods are what we will learn next.

Project-based Learning: PjBL

Project based Learning is for students to learn by using a project as a base. Especially in this Covid situation, it is imperative that schools rely on project-based learning. Project-based learning consists of five steps in the process of vocational education that have been synthetically analyzed and published internationally and with vocational groups over the years. The first step is to prepare students to be prepared by requiring them to group together and define the issues that they will work on and then to define the topics in the next step. At this stage, between the teacher and the students, it is necessary to discuss the topic of the project. They need to talk together about what projects students will do. This will be used online to discuss how many groups and how many people in each group. The students were then allowed to create a joint project (Office of the Vocational Education Commission, 2012).

Projects involve having students present ideas that they can work on together in their group. Then they will present online how this project will do and then go on to carry out the project of their own group. All of this is up to the teacher to determine how long it will take and what category it will fall into. After the students have done the project, they must present their work how the project has been done. This is a very important technique of On-site. If the students are still unable to come to the class, the instructor allows the students to do it by themselves. This method uses grouping to make different projects. The tutor will then evaluate the project from the student's project presentation with immediate grading. If normal teaching is not managed, then the project is arranged for the students to do by evaluating the student's project after the completion of the project. This approach can be done in the agricultural sector because the College of Agriculture already has projects in the course. This Project Based Learning can be done in all subjects in conjunction with another approach that is predetermined in conjunction with the project, the STEM. STEM stands for Science, Technology, Engineering and Mathematics (Wannapiroon, Nilsook, Techakosit, & Kamkhuntod, 2021).

STEM Education

STEM education is a matter of integration. In the past, this technique was referred to as integrated teaching, which was to learn from the course of each subject with the characteristics of many subjects and then make a project together. This method may require learning in science, technology, engineering, and mathematics, but it does not mean that you must study engineering or math, but rather to practice hands-on or computational methods. It might start with solving the problem, starting in a scientific way, finding a problem, hypothesizing, and then acting. This would be the nature of STEM education. On-site STEM education is organized in conjunction with a project-based approach, meaning that learners can integrate learning in a variety of subjects and integrate them. STEM education can be done in all subjects. Therefore, in STEM education, it is the integration of knowledge into the use of knowledge in various fields. Students may apply science subjects to agricultural subjects and may apply technology subjects to agriculture as well. In bringing the subject of engineering into use, it will be a practice to do together with calculating from the integration of knowledge with mathematics. Any subject that has all four components in this manner, allowing learners to integrate all four of these thinking approaches is called STEM education. This is an on-site technique. If students have been working on a project, they can add to the STEM part by integrating several subjects together (Techakosit & Nilsook, 2016).

STEAM

STEAM learning is an addition to STEM Education learning. Stream is the original stem, to integrate Art, or A, with Science, Technology, Engineering, and Mathematics. It is sometimes called a stream or also called a stemma. What does Art mean? Art refers to the use of art to add beauty to a project. For example, if studying agriculture, then students do agricultural projects as a science project that uses technology to be used in agricultural management processes. Another example of a student working on a tree, they planted bananas by using the scientific process. Once the bananas are planted, they use technology to help them practice, and there are also calculations of wages to calculate profits and losses in this banana planting. When he added STEAM, he added art, which was to bring banana leaves to make a Krathong like this. It means that from the original STEAM, it will increase the technique of using the product to manage to make it beautiful. Taking the product to be a form of art may be carved trees to be more beautiful. It all depends on each group of learners whether to use the arts to enhance the beauty of their work, such as wood carving or beautifying things, which is an addition to the on-site learning (Kummanee, Nilsook, & Wannapiroon, 2020).

Therefore, STEAM is to enable students to increase their artistic skills. This is the aesthetics of the body. Some students have aptitude for various arts and will add them to their work. Therefore, it will be paired with the stem. As for the STEM, the emphasis is on integration rather than the emphasis on bringing in a variety of subjects. While Project Based Learning focuses on the process of project work, this project is diverse in all subjects. Stem is also characterized by diversity of integration, even in agriculture. But if the learner has art in his heart, he can add beauty to his project, which in this manner is known as a stream. The media arrangement that is an on-site technique of vocational education can allow learners to make proposals in a Project - Based, STEM or STEAM. These are on-site processes. It means that the learner or the student himself can take these thinking methods and implement it himself. Performance depends on what the learner's ability, aptitude or preference is like (Monkeviciene, Autukeviciene, Kaminskiene, & Monkevicius, 2020).

Imagineering

Another technique that has been researched over the past 10 years is an on-site teaching technique called Imagineering. This applies to all groups of vocational education. Imagineering is about how we define how students think about how to use plants and what they already must help solve problems during this Covid crisis. Questions of this nature are found in all educational institutions. This kind of trait is known as Imagineering, which means it encourages students to develop imagination (Nilsook, Utakrit, & Clayden, 2014). The approach is like Project Based Learning, where learners in each group use what they are good at or could imagine what it can do and how it can be used. For example, in agriculture now, the question is what can *Andrographis paniculata* be used for? Can it really be used to treat COVID? Cannabis plants are not yet allowed to be possessed and cannot be cultivated. But ask, can we imagine if the College of Agriculture and Technology were allowed to grow cannabis? How will students have their imaginations? What do you want to do with cannabis? Anything that has not yet arisen or what we imagine or dream that we want to have is called Imagineering. For example, the creation of robots used in competitions or robots used in industrial applications is all from mental engineering (Chatwattana & Nilsook, 2017). The learner has to imagine what he will use the robot to do, which is to create a virtual image and create a dream image of the robot that we are about to build, we can use it for what. Agriculture is the same as anything that has not yet arisen and we imagined,

such as cannabis or other agricultural or veterinary plants, what can we use it for? This is called imagination. Then bring your imagination to design that you will need to create or do something next. Therefore, when you think that this imagination will be used to create or do anything, you can take what you think or do to develop immediately. In this way, students can use their time during the period when they are unable to attend school to develop together. As for the presentation, it means bringing the work that has been thought together with friends in the group to help present it online, for example, take a short clip or open Online Real Time and send it to the teacher to see. This is how it's presented during Covid times. As for the teacher's mission, it is necessary to bring what students think or present to discuss, give suggestions or suggest that can be improved. Instructors may have peers or other groups attending the presentation to give feedback to each other. For students to go on their own on-site in providing feedback, there must be adjustments, sharing, exchanging experiences among the groups and then collaborating on assessments. This thought process is an on-site technique that has been working well over the years (Sanglub, Nilsook, & Wannapiroon, 2019).

On Hand

On-site, the main method that has been used and practiced in recent times is publication, but how does it relate to On-hand? This technique is a vocational standard. Instructors can be found in the vocational practice manual. STEM learning includes Science, Technology, Engineering and Mathematics. The nature of both Project Based Learning and STEM education, with the addition of Art, is STEAM, which consists of Science, Technology, Engineering, Art and Mathematics (DeJarnette, 2018). All of these are processes that can make On-site successful in such a way that it allows learners to learn on their own and allow learners to do it on their own. It is also possible to use techniques such as visual engineering to enable students to imagine what will happen in the future, to be able to design, develop, implement and improve. This is a process that has been reworked in the past. In addition, teachers can provide On-site in the form of teaching demonstrations. If it's the old way, the demonstration will either give you practice or you can give a worksheet and go to practice at the college. However, it depends on the planning of each instructor how they will have their views on On-site. On-site at this time, if this is not possible in college, it can be given to students on-site at their own home. Otherwise, let students go to practice in the workplace and then have on-site tell you the technique, method, process, what you need to do by letting them do it in STEM or Project Based or Steam or Imagineering, etc. This is a technique called On-site, which is a popular technique among vocational education groups. For the College of Agriculture and Technology, this can be done without any problems or may be based on training. This means that On-site, sometimes the students themselves are unable to come to the college, the instructor sends the student to train, or the teacher will provide training by using various agencies to help, it can be done. If training is organized on a specific subject that corresponds to this course, it is called training, which can be done either as an online e-Training or an On-site Training in the manner that the training is a specific subject (Rintala & Nokelainen, 2020)

During this time, there were many trainings taking place because the students were unable to attend college. In the place where the training is held, there will be a system of measures. Instructors can send students to train or if students are already practicing, let him report the results of the practice. Writing a report on the results of going to cooperatives or bilateral to the teachers, this is the nature of Vocational Education Training. This section is about on-site as well. As for the college of agriculture, on-site is a modern concept of smart farming that is highly dependent on technology. That perhaps students do not need to go to college, but they do have to learn about some new technologies in agriculture, such as applications that can check the temperature of the fields or check the farmland. On-site, it is very easy if the learners can practice in the area where they are on-site. Studying on-site does not mean having to go to college alone. Instructors can allow students to practice anywhere, or they can set conditions or problems and determine the technology that they will use smart farming to do. We have come to an era where technologies such as Data Analytics, Sensing Technology, Software Application can be applied to agriculture. Whether it's plants or animals, there are many for students to try and try to do. Therefore, this On-site will be paired with On-demand and assumed that the learner himself can choose the Application or new technology by himself in which he will go to practice or learn in those things that he can do by himself (Wanotayapitak, Saraubon, & Nilsook, 2019). An important aspect of On-site is that upon completion of the process that students have tried, the instructor is the one who has to verify the correctness of the content that the students have studied. The teacher must be able to advise the learners what is the correctness of those things. Another concern is that during on-site learning, the learner and the instructor cannot be near each other, so both the teacher and the student are worried about how to check their work. This problem is based on on-site real-world assessment. If students cannot be included in the exam, the actual assessment method is to look at the student's work from the Project Based body and from the tools and equipment. Looking at the body of this work is that it is an on-site learning style.

On Air

R-Radio

R-Radio is teaching media of vocational institutions that are on-air. We believe that you all have seen that in the process of On-air, the Vocational Institute has already set up a station. These are Vocational Institute satellite television stations, especially those viewed from a satellite dish called KU-Band, a specialized radio station of a vocational institute called R-Radio and a digital television station of the Vocational Institute called R-Channel. This section contains all types of courses of vocational institutions. In the past year, vocational institutions have invested a lot in On-air. We have spent a lot of budgets for teachers to manage, record and organize on-air. The characteristics of On-air are radio, television, and distance teaching materials (Qin et al., 2020). On-air will be a feature where the instructor can let the learners to study while the live broadcast. Therefore, organizing long-distance television via satellite during this Covid period started On-air since last year via digital television channel 53 of the Vocational Institute. Instructors can allow students to see it. If there are any courses related to our subjects, the vocational institutions will have a dedicated R-Channel. There will be a TV station that broadcasts teachings that many teachers have recorded and broadcast on R-Channel. There is also a list of documentaries used for on-air teaching. This section will be in the remote that has included On-air in all the remotes. There is also a Radio Network that is an R-Radio, a specific radio station of a vocational institute that can be used by teachers as well.

DLTV

On-air is the management of distance education through the television system. It is not only about vocational education, but there are also various digital stations of the Ministry of Education that are added to vocational education, such as DLTV, which has both C-Band and Mobile Application. It can be said that DLTV is a learning management tool and has a well-known teacher cabinet. In which each DLTV, the instructor must choose which part is related to our course and is taught directly with us or not, will be able to allow students to study through On-air as well or not. If the teaching hours are the same as ours, it will be very helpful for our students to learn through On-air. Therefore, the management of distance education through this on-air system is called Distance Education Learning (Li, Kim, & Xiong, 2020). Each college can also set a schedule for On-air through the various vocational college media. This was a medium that was transmitted from both the Satellite Distance Education at Wang Klai Kangwon and the Wang Klai Kangwon Vocational College that was specifically in charge of this matter. There is also a digital TV station on Channel 53 and R-Radio of the Vocational Education Institute. There is everything for the on-air of vocational institutions. There will be a station in the service, in addition to viewing through the satellite dish and on digital TV channels can be viewed via cable TV via various satellites. Instructors can determine whether the desired content and items are consistent with our course or not. Through long-distance television channels via satellite and cable TV, this kind of thing is called On-air. That is, if the teacher will set the schedule to match the students, they can see it at KU-Band on channel 202 broadcast via satellite. The limitation of this learning technique is that it is called One Way Communication. It is a one-way learning system, meaning that learners can only receive information and knowledge. If the learner has been assigned to study and the learner does not attend school again, what to do? One technique that many educators have successfully organized is to define the schedule in the class and look at the subject matter. After that, the students are asked to study according to the schedule, when the study is complete, there will be a test created by the instructor (Huang et al., 2020). This On-air method is an open system that can be reviewed or viewed several times and can be viewed again because the program of the station belongs to the Vocational Institute itself. If the instructor wants to record the teaching, they can download or request files of these items as they are already provided by vocational institutions. At the same time, if the teacher wants to broadcast a program related to our course in an audio format for students to listen to again, they can contact R-Radio. This kind of style is known as One Way Communication On-air, which is R-Radio Network, a radio station of a particular vocational institute. Instructors can visit and follow up. If the teacher wishes to take the lectures for the learners to listen on their own, they can also be sent to R-Radio as well. As mentioned above, it will be a radio network teaching media of vocational education that are available in many ways. Instructors can use it in teaching and learning as well (Rujira, Nilsook, & Wannapiroon, 2021).

3. Conclusion

During the Covid situation, efforts were made to apply various teaching techniques and methods to solve the problems in teaching and learning management of vocational education in Thailand. The policies and procedures used are unprecedented. This has caused many problems and obstacles. But under the frustration, there are many new opportunities. Administrators and teachers have learned new methods that result in quality teaching and learning in vocational institutions, promoting professional competence of learners in accordance with the guidelines of each professional field by means of different. This corresponds to the sudden transition that has become the new normal of vocational education management.

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