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Perceptions of school science teachers who implement TMF on the independent curriculum implementation

Persepsi guru IPA yang mengimplementasikan TMF terhadap keterlaksanaan kurikulum merdeka

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Abstract
This research serves as initial information about the aspects that determine the teacher's teaching process regarding perceptions of implementing the Teaching Mastery Framework (TMF) in supporting the independent learning curriculum in the middle school A scientific environment, and be a reference in adjusting teacher competency improvement programs implemented by school principals in the future. The research aims to determine the perceptions of science teachers at middle school A in improving the quality of teachers' teaching practices as evaluation material for teachers in implementing TMF and the role of TMF in supporting the independent learning curriculum. This research uses a qualitative approach. This type of research is a case study. Case study research may focus on programs, events, or actions involving individuals rather than the group. Additionally, when case studies study groups, they may be more interested in explaining their activities than in identifying the typical patterns of behavior they exhibit. The data collection techniques used were interviews, observation, and documentation. The sampling technique uses purposive sampling. Data analysis techniques use source triangulation and engineering triangulation. The research results show that teachers' perceptions of implementation improve teaching practices with TMF, namely freedom in teaching, so the methods and models used to deliver material to students more varied. The TMF aspect role of middle school A increase teacher competence and provide convenience for teachers in independent curriculum implementing, in line with the TMF that the school has in the classroom and administratively to improve the quality of teacher teaching.

Keyword: teaching mastery framework; middle school; perception; teachers; natural science

Abstrak*. Penelitian ini menjadi informasi awal mengenai aspek-aspek yang menentukan proses mengajar guru terkait persepsi terhadap implementasi Teaching Mastery Framework (TMF) dalam mendukung pembelajaran Kurikulum Merdeka di lingkungan saintifik SMP A, dan menjadi acuan dalam menyesuaikan program peningkatan kompetensi guru yang dilaksanakan oleh kepala sekolah di masa yang akan datang. Penelitian ini bertujuan untuk mengetahui persepsi guru IPA di SMP A dalam meningkatkan kualitas praktik mengajar guru sebagai bahan evaluasi bagi guru dalam mengimplementasikan TMF dan peran TMF dalam mendukung pembelajaran Kurikulum Merdeka. Penelitian ini menggunakan pendekatan kualitatif. Jenis penelitian ini adalah studi kasus. Penelitian studi kasus dapat berfokus pada program, peristiwa, atau tindakan yang melibatkan individu daripada kelompok itu sendiri. Selain itu, ketika studi kasus mempelajari kelompok, mereka mungkin lebih tertarik untuk menjelaskan kegiatan mereka daripada mengidentifikasi pola umum perilaku yang mereka tunjukkan. Teknik pengumpulan data yang digunakan adalah wawancara, observasi dan dokumentasi. Teknik pengambilan sampel menggunakan purposive sampling. Teknik analisis data menggunakan triangulasi sumber dan triangulasi teknik. Hasil penelitian menunjukkan bahwa persepsi guru terhadap implementasi meningkatkan praktik mengajar dengan TMF, yaitu adanya kebebasan dalam mengajar, sehingga metode dan model dalam menyampaikan materi kepada siswa lebih variatif. Peran aspek TMF SMP A meningkatkan kompetensi guru dan memberikan kemudahan bagi guru dalam melaksanakan Kurikulum Merdeka, yang juga sejalan dengan TMF yang dimiliki sekolah di dalam kelas dan secara administratif dalam rangka meningkatkan kualitas mengajar guru. Kata kunci: kerangka kerja penguasaan pengajaran; sekolah menengah; persepsi; guru; ilmu pengetahuan alam*

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INTRODUCTION

In the 5.0 era, all aspects of life are connected to technology, so people must be able to think critically and innovate creatively. The Indonesian education system has changed along with the progress of the world of education based on developments in theory and the authority of policymakers (Maghfiroh & Sholeh, 2022). Additionally, suppose the motivator in implementing the implementation convinces school administrators and staff that the change is consistent with or closely aligned with the attitudes and workflow of the school culture system. In that case, the change will help improve student outcomes nationally and nationally and at the international level.

The problem in junior high school science learning is that students are less interested in participating. This often happens because teachers are less creative in packaging material, and students tend to get bored with the learning process. Also, choosing an inappropriate learning model can affect students' learning outcomes and activities. Students show that there is much information that they need to receive and process (Rizal, 2014). This dynamic condition requires efforts to transform learning to improve the quality of Indonesian education, such as the reforms that the Ministry of Education and Culture has carried out by establishing a new policy, namely the freedom to learn (Maghfiroh & Sholeh, 2022). In this case, Indonesian professional teachers should have several superior competencies, namely pedagogical, personal, social, and professional competence.

Pedagogical competence relates to the teacher's skills in classroom management so that learning can run effectively and students can participate in learning in a conducive and efficient manner. Classroom management skills are also contained so teachers can create a pleasant learning atmosphere. The quality of classroom management carried out by teachers is reflected in three aspects: planning, implementation, and evaluation (Sutisna & Widodo, 2020). The best learning is when the teacher explains that students need more active learning. The role of the teacher is to provide a source of information and facilitate and motivate students to become more independent, qualified, and active in the learning process. The teacher's main task is to organize learning activities that allow interaction. Good interaction should be moved from student to student, student to teacher, or vice versa to create good collaboration. Ideal education with excellence, balanced facilities, infrastructure, and learning methods to develop interest, capacity, attention, and achievement into a more meaningful learning process (Depdiknas, 2006)

Middle school science learning focuses on conceptual theory, prioritizes the learning process, and discovers the concepts and materials to support student-centered learning. Therefore, the aim of learning in the laboratory is to develop students' skills such as observation and the use of tools, train students carefully, recognize laboratory measurement skills, and practice accurate processing, deepening knowledge, fostering honesty and responsibility, as well as planning experiments through reporting, experimental results, thinking, critical analysis and experimental conclusions (Anjarsari, 2014).

In everyday life, humans face scientific problems. Therefore, learning science is necessary for everyone, at least by understanding the importance of science education. To fulfill the minimum requirements for primary science education for human life, science is one of the main subjects at the general education level from elementary to middle school. As time goes by, society faces increasingly complex problems. Many problems cannot be solved with one field of study, such as Physics or Biology, but must be solved with several interdisciplinary courses. The science that studies various sciences, such as physics, chemistry, and biology, is called integrative science (Oludipe, 2011).

In Indonesian education problems, perception emerges as an essential aspect of human cognition, allowing them to know and understand the world around them. Without correct perception, humans cannot capture and interpret various phenomena, information, or data that constantly surround them (Desmita, 2014)

According to Munhall (2008), perception is a way of understanding reality and experience through the senses, thus enabling the differentiation of figures, forms, language, behavior, and actions. In general, perception is defined as a way of seeing something. An individual's perception of something indicates how he thinks about it or his impression of it. Perception can be explained as a set of lenses individuals use to view the reality around them. This allows individuals to recognize sensory information from the environment around them and use that information to interact with the environment meaningfully. Individual perceptions can be understood through their interpretations and behavior. This means that

perception influences an individual's opinions, understanding, meaning of experiences, judgments, and ways of responding to situations. The perception of something depends on the context in which it is experienced. Perception varies; different people perceive the same object or situation differently.

Perception can be defined as an individual's personal view of reality. Thus, conception encompasses knowledge and beliefs into a single concept. It provides a framework for describing teachers' overall assessment perceptions and awareness, generally showing that teachers have their perceptions/beliefs. Research on teacher beliefs generally shows that teachers have cognitive beliefs/theories about teaching and learning, which their training and work experience may have influenced, and so on (Nga, 2009).

According to Johnson (1994), research on teacher beliefs consists of three basic assumptions: (a) Teachers' beliefs influence their perceptions and judgments. (b) Teacher beliefs play a role in translating instructional information into classroom practice. (c) Understanding teachers' beliefs is critical to improving teaching practices and teacher education programs. Because teachers are critical in implementing the right approach, their values, attitudes, and beliefs about classroom practice are essential. "Increasing teacher competency" is intended to improve teachers' skills and abilities, which can be used as working capital to support smooth running. Barnes et al. (2015) argue that the focus of research in this area appears to be examining the gap between teachers' frequency of use and beliefs about the importance of each practice.

Science learning in schools aims to help students gain logical, critical, and systematic thinking skills. Through science learning, students can develop their ability to think logically and develop critical thinking skills in everyday life. Applying a scientific approach aims to achieve learning goals effectively and efficiently, preferably quickly. Learners with little interest in learning will find the teacher's teaching methods quicker and easier to understand and may find it suitable. This is the biggest challenge for teachers who teach less capable students than intelligent students (Silalahi et al., 2022).

Therefore, this research was conducted more in-depth regarding teachers' perceptions of science learning at middle school A, which has implemented TMF as a framework for implementing the independent curriculum. So, to find out this, the researchers created the title "Perceptions of science teachers in middle schools who implement TMF on the implementation of the independent curriculum." The TMF is a collection of competencies that a teacher must have to be able to teach effectively. In TMF, learning effectiveness is seen from 4 aspects: Affect, Behavior, Engagement, and Cognition. The TMF was designed in stages by Mr. Zulfikar Alimuddin and then developed based on a 4-year continuous implementation, review, and evaluation process at the Global Islamic Boarding School (GIBS), a boarding school for middle and high school students. TMF consists of 8 aspects: pedagogical content knowledge (PCK), higher-order thinking skills (HOTS), lesson plans, teaching tactics, classroom management, soft skills, teaching scenario, and teaching grading (Alimuddin & Kamelia, 2019)

Middle school A is a GIBS that applies the TMF to manage school teacher-teaching practices. Based on the teacher's experience in teaching before using TMF, the teacher's way of teaching was not considered suitable. However, after using TMF, the teacher's teaching implementation was considered good. Teachers, the school management team, and the principal expressed this perception. However, until now, no documentation has stated what teachers mean by good learning. Therefore, it is important to have academic documentation as a basis for initial efforts to understand learning practices that they consider good after the implementation of TMF. In this way, school management can understand the teacher's mindset and become a reference for evaluating whether the quality of teaching is as good as assumed. This perception influences teacher success in implementing TMF at GIBS Middle School.

Middle school A applies the TMF to manage teacher-teaching practices in schools. TMF was implemented in middle school A with the assumption that after approximately 5 years of implementing TMF in schools, a perception emerged that the use of TMF in schools could facilitate optimal learning, one of which was in science subjects. The teacher, principal, and management teams hold this perception. However, even so, there is still no documentation about this perspective. This documentation is needed so that there is a perception that after using TMF, the implementation of science teacher teaching is considered good, as expressed by teachers, the school management team, and the school principal. It is important to have academic documentation as a basis for initial efforts to understand learning practices that they consider good after the implementation of TMF. Understanding the teacher's mindset can be a reference for evaluating whether the quality of teaching is as good as assumed.

This research examines science teachers' perceptions regarding using TMF in implementing the independent curriculum. The perception referred to in this research is when someone knows, understands, and is aware of the object. The manifestation of perception within a person is in the form of interpretation or interpretation of reactions or responses, beliefs, and hopes (Anggianita et al., 2020). Simply put, this research wants to find out what teachers know, understand, and are aware of about the role of TMF in implementing the independent curriculum in middle school A through their interpretations, reactions or responses, beliefs, and hopes. By knowing this, especially in supporting the curriculum implemented in Indonesia at the time this research was conducted, namely the Independent Learning Curriculum, it is hoped that valuable insights will emerge regarding various efforts to carry out effective learning in various educational contexts.

RESEARCH METHODS

This research uses a qualitative approach. The type of research is a case study. Case study research may focus on programs, events, or actions involving individuals rather than the group (Yin, 2014). The research was carried out in February 2023 at middle school A under the auspices of the international standard Hasnur Center Foundation. The subjects of this research were teachers at middle school A who taught science subjects. This research, were 2 teachers involved, Teacher 1 and Teacher 2. He is a science teacher who taught for quite a long time at middle school A. In this research, the sample studied was 2 science teachers who were trainers, driving teachers, and authors of books published by shade institutions. YHC is HAFECS. These two samples have also taught for a long time and have been trainers for driving teachers. The sampling technique used in this research is purposive sampling, with sample selection based on specific characteristics or traits. In this non-random sampling method, the researcher ensures the citation of illustrations through a determining method. A unique identity that fits the research objectives so that it is hoped that they can respond to the research case. This illustration is more suitable for use in qualitative research or research that does not carry out generalizations that are considered to be closely related to previously known characteristics or traits of the population (Riyanto, 2020). This research uses unstructured interview techniques, observations, and documents. The analysis technique used is descriptive with validity checks. Namely, Triangulation is a technique for checking data validity by utilizing something other than the data itself for checking purposes or as a data comparison. One of the triangulations researchers use is source triangulation, which means comparing the degree of trustworthiness of information obtained through different sources. For example, the results of observations were compared with interviews, what was said personally, and the results of interviews were compared with existing documents. Triangulation techniques are used to test the trustworthiness of data by finding out and searching for the truth of data from the same source through different techniques. Researchers use different data collection techniques to obtain data from the same source. In this case, researchers can combine observation, interview, and documentation techniques, which are then combined into one to conclude (Sugiyono, 2013)

RESULTS AND DISCUSSION

The science learning process at middle school A

Middle School A has a science learning process, a learning system different from schools. Science subjects are divided into Physics Science and Biology Science, so schools have Biology teachers and Physics teachers. This separate subject is the teacher's teaching experience while teaching at middle school A, so it becomes an evaluation for the school, teachers, and school management team. This aims to increase students' understanding of the physics and biology science subjects. The teacher feels that from the experience of teaching practice implemented by teachers at middle school A, when teachers with basic Biology deliver science material, 80% is related to Biology and 20% is Physics or vice versa. So, teachers feel less effective for students. Therefore, schools divide integrated science subjects into physics science and biology science.

In the independent curriculum, the separation of subjects means that teachers must be able to coordinate regarding Physics and Biology Science material to select appropriate material and themes. However, separating learning subjects at middle school A is not a significant problem. So, physics teachers

and biology teachers coordinate to combine Physics Science and Biology Science material. Because in schools, teachers generally have different graduate backgrounds. So, teachers must be able to use their creative powers in various engaging media and learning methods. Teachers must be able to choose methods that suit students' needs and adapt them to the teaching material.

The methods and media applied by teachers at school A must adapt to the material to be provided, such as the use of technology such as PowerPoint, videos, and images. In science learning, the learning process is carried out in the classroom, and science learning activities can also occur in the laboratory. For example, practical activities are critical to achieve the learning objectives that the teacher has designed. Practicums are not only carried out in laboratories, but can be carried out in the school environment. At middle school A, the teacher applies practicum outside the laboratory and classroom, for example, on ecosystem material, which requires plant objects, small rivers, and things related to plants and living creatures. So, the practicum will be carried out depending on the material that will be given. The process of delivering material is also related to the method used by the teacher. One that is often used is question and answer. Teachers at middle school A use question-and-answer approaches in everyday life that students discover and then link to science learning material. One of the learning resources for students is the textbook provided by the school. Teachers at middle school A have the freedom to use books more flexibly. So, it is important to have varied learning from teachers so students can be interested and participate in learning well.

School facilities are the most important thing in supporting science learning. At middle school, A, the facilities support the science learning process; for example, laboratories are also essential. Chemistry, Physics, and Biology laboratories are also available even though they are attached to SMA. The availability of laboratory assistants is sufficient to help teachers prepare for practicums depending on coordination between teachers and laboratory assistants. The environment around the school also has ponds, small rivers, gardens, and fields that can support learning related to this matter. So that learning related to science or science can be carried out in practical practice both in the classroom and in the school environment. It all depends on how the teacher arranges more exciting and accessible content for students to understand.

At middle school A, the physics and biology science subject teachers are separated so that they have the freedom to determine which lessons the teacher masters. Learning subjects are adjusted to the teacher's experience in the field of graduation being pursued. Teaching experience is also significant, especially in managing the class, mastering the class, communicating well, and being able to provide an understanding of material that is easy to understand. So that the teacher's skills can also be honed and the class is conducive to every situation. Each teacher at middle school A has a way of mastering the class, one of which is determining the initial competency of students. Therefore, teachers at middle school A are free to use more flexible and relatively thin textbooks. So that students do not feel that when studying biology science, students have to memorize. When learning physics science, students do not feel like they are just calculating many formulas. So, one way for teachers to be more creative is by selecting learning resources. However, schools also continue to provide school textbooks. Middle school A has fully supported facilities with equipment in classes and chemistry, physics, and biology laboratories, so classroom use depends on the characteristics of the material.

Learning media is very important in the learning process because teachers can convey material to students more meaningfully. Teachers not only convey material in the form of words with lectures but can also help students truly understand the material being conveyed. Learning media functions as a learning resource for students to obtain messages and information from teachers so that learning material can be further improved and shape students' knowledge. The benefits of learning media are: (1) providing teachers with guidelines for achieving learning objectives so that they can explain learning material in a systematic order and assist in presenting exciting material to improve the quality of learning. (2) increase students' motivation and interest in learning so that they can think and analyze the lesson material provided by the teacher well in a pleasant learning situation and can understand the lesson easily (Nurrita, 2018)

The critical role of educational units as facilitators is expected to be to provide various learning facilities, such as learning media, teaching aids, and learning resources. Students can achieve success in

learning if something they have learned can be applied in everyday life through effective learning. Effective learning allows students to learn quickly, has fun and challenges, and motivates students to learn so that students understand the concepts of the material being studied becomes more meaningful (Yusuf et al., 2021). According to Sitirahayu (2021), learning facilities are a factor that can improve student learning achievement. The facilities in question are the study room, the atmosphere of the study area, learning tools, and lighting. Environmental facilities, such as fields, pools, also support student activities. Separating Biology and Physics science subjects aims to ensure that students remain conducive. Science teachers should ideally be combined, but there is no problem if there is coordination between the teachers. In learning, teachers can master their field better so that students are more enthusiastic because the teacher can master the material and class. The material preparation is combined to be completed in 1 semester, but the independent curriculum learning outcome is adjusted and included in the Pancasila profile section. In the subject of physics science, the material that will be discussed will be related to formulas for objects that are often dominant in counting. Meanwhile, Biology Science discusses living things in the surrounding environment. So that being combined or separated does not hinder teachers from providing material to students. Teachers' teaching practices need to be improved to provide varied learning so that students can participate in learning in a conducive manner.

Teaching practices using TMF aspects help teachers simplify the process of implementing learning. Before developing a teaching module, the teacher knows the strategy for developing the teaching module and must fulfill two minimum requirements, namely meeting existing criteria and learning activities in the teaching module by the principles of learning and assessment. The criteria for independent curriculum teaching modules are as follows: (1) Essential, namely that each subject has a concept through learning experiences and cross-disciplinary knowledge; (2) Interesting, meaningful, and challenging, namely that teachers can foster interest in students and involve students actively in learning, related to their cognitive and experience so that it is not too complex and not too easy for its age, (3) Relevant and contextual, namely related to cognitive elements and experiences that have been previously had and according to the conditions of the time and place where students are, and (4) Continuous, namely that learning activities must have appropriate connections. with student learning phases (phase 1, phase 2, phase 3) (Maulida, 2022) so that when carrying out learning in the classroom it is easier for teachers to prepare the content that will be created in teaching modules. Teachers can adjust learning objectives to the school's supporting facilities. Boarding schools make students dependent on teachers due to limitations in reaching outside the dormitory. Therefore, teachers must be able to provide tools and materials related to science material. With the availability of a complete laboratory, teachers can practice learning activities directly in the classroom. Teachers also use virtual labs to minimize learning time. Therefore, all learning processes must be structured well so that the material provided can be understood by students well. Provide analogies that are as simple as possible to make things easier for students.

TMF in the implementation of the independent curriculum

The Ministry of Education implements an independent curriculum at every level of school. However, at the beginning of the independent curriculum implementation, several schools were still unable to implement this. Several factors make it difficult for school principals and teachers to implement independent curricula in schools. One of them is fulfilling the administrative process and implementing it for students. Many things must be adjusted. At middle school A, the Independent Curriculum has been implemented. However, it has not yet been 100% implemented because modifications to the school's framework accompany the teachers in applying it. According to teachers at middle school A, the independent curriculum and 2013 curriculum (K13) have the same principles. The only difference is that the independent curriculum is broader, more thorough, and administratively complete. An independent curriculum emphasizes that teachers are more careful and structured in creating learning phases. However, overall, K13 and TMF do not conflict with the independent curriculum, so teachers adapt. Adjustments include additions implemented in K13, so there are only differences in terms.

TMF is an aspect that helps teachers simplify the learning process tools that will be designed. This framework is essential for every school to be able to evaluate teachers in every lesson they carry out, for example, in collecting administrative documents for teaching modules, PowerPoint, and the obstacles they

face every day in classroom learning. Therefore, by implementing an independent curriculum, teachers must improve their pedagogical competence to manage the class effectively and be attractive to students. Therefore, TMF in implementing the independent curriculum is a teacher adjustment in creating teaching modules and learning practices in the classroom. The TMF chart can be seen in Figure 1.

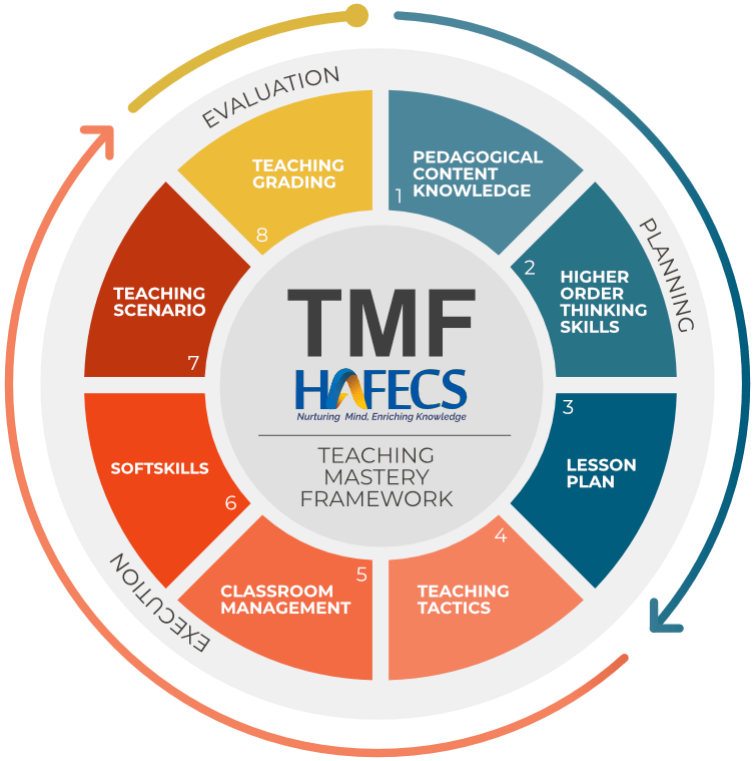


Figure 1 The TMF chart

Middle school A is a private school, namely a GIBS packaged modernly. Each school has teachers with different teaching skills. Middle school A teacher skills are prioritized so the school provides training. Training was provided by the director of the middle school A institution as well as from various agencies related to TMF material or general material. So that teacher knowledge is broader regarding hard skills. Teachers at middle school A also participate in the driving teacher trainer where teachers will always learn how to provide engaging, innovative learning.

Middle school A implements an independent curriculum with several teachers becoming driving teacher trainers. The independent curriculum is broader than K13 but not the opposite of TMF. Changes are only administrative in teaching modules, and the teacher can only adjust them. The independent curriculum has not yet been 100% implemented because there are still modifications between the government's teaching modules and the school's TMF. Additions to teaching modules such as the Pancasila profile, meaningful understanding already exists in the K13 curriculum but is written more specifically. So modifications to TMF, K13, and the independent curriculum do not make things difficult for teachers because they are interrelated.

As one of the most extensive education systems in the world, Indonesia has achieved significant progress in improving educational outcomes in the last two decades. The government has succeeded in increasing school access, funding, and high school enrollment rates with the government's policy of 12-year compulsory education. Like many other developing countries, Indonesia must face significant challenges to increase access to education and achieve high-quality education. The Indonesian government has carried out a series of reforms to improve the quality of the nation's education. However, managing an education system of this size is not easy. Despite rapid progress in many fields in the last few decades, challenges still exist (Sukmayadi & Azizul, 2020)

However, the Indonesian education system, along with progress in the world of education, is experiencing changes based on developing theories and the authority exercised by policymakers to

overcome the challenges that still exist in education. After the pandemic, the curriculum also underwent adjustments, namely the independent curriculum. The independent curriculum is also implemented through various activity-based projects to encourage students to be skilled in producing work to understand concepts and apply them to solve real problems (problem-solving) that are often found in the environment around students. Era Society 5.0 needs to be provided so that students have the literacy skills to analyze, understand, and identify solutions to problems encountered in everyday life. As a result, someone with a high level of literacy can obtain knowledge and information and apply digital technology in activities to improve their well-being. The aim is for students to be able to compete in the digital era in the world of work in the future (Intiana et al., 2023). Therefore, society must obtain proper education to be creative and to balance technological developments so that human nature remains the main thing in living a sustainable life in the future (Maghfiroh & Sholeh, 2022).

With changes to the curriculum, educators must improve the superior competencies teachers possess. Each agency needs to train teachers to develop their competency. One thing that must be had is a school framework. TMF is a way for middle school A to increase teacher competence and teaching effectively. With the TMF, it makes it easier for teachers to arrange learning tools in an orderly manner, how to communicate with students, conducive class control, make questions according to students' understanding, and activities that are routinely carried out in class so that students remain neat and comfortable, collecting learning videos that the teacher must collect to the academic section. So, with changes to the independent curriculum, teachers have no difficulty implementing it in the classroom; they need to adapt. Only administratively due to modifications made to TMF.

The school does not eliminate the TMF aspect and also follows government regulations. So schools use both the TMF they have and the curriculum changes implemented by the government, namely the independent curriculum. Therefore, teachers must be able to adapt both because the independent curriculum is more about the essential importance of administration. The aim is for the independent curriculum to be used as a tool to improve the quality of teaching. In science subjects, all learning activities are not only in the classroom but also in the laboratory and school environment, so teachers must be able to provide varied learning so that students continue to learn well. For this reason, the training schools provide regarding TMF is a good step in increasing teacher competency and improving skills. The school's TMF can align with the independent curriculum because both are modified to provide exciting learning for students and can improve students' learning achievements in all fields.

CONCLUSION

Based on the results of the data analysis, the following conclusions are put forward: In the learning process, teachers are given freedom by the school to provide practical learning processes by the learning subjects mastered, namely Physics and Biology science subjects, with the support of TMF. Middle school A's facilities are good regarding existing classes and laboratories. TMF can improve teachers' teaching practices to vary learning well. Teachers' perceptions regarding the TMF aspect make it easier for teachers to implement the independent curriculum in the classroom and administratively to improve teacher teaching quality. The most dominant aspects used are PCK and HOTS, and other aspects support preparing learning aspects in class. The TMF aspect, which is in line with the independent curriculum and well-planned learning content materials, can increase students' interest in learning. As for this research, schools can pay more attention and evaluate teachers in soft skills training so that not only hard skills are obtained by teachers at the junior high school level. The framework used helps teachers in improving teaching competence. So that aspects of TMF can be further developed and applied in other schools.

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