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**ANALYSIS OF THE NEED FOR DEVELOPMENT OF TECHNOLOGICAL  
ANDRAGOGICAL CONTENT KNOWLEDGE TRAINING MODEL (TACK) EQUALITY  
EDUCATION TUTORS**

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**ABSTRACT**

The development of training models needs to be developed at this time, to improve the Technological Andragogical and Content Knowledge (TACK) skills of equality education tutors. This research aims to analyze the tutor's knowledge of TACK skills and see how much equivalence education tutors need to improve their TACK skills. The development method used in this research is the Research and Development (R & D) method with the Critical Event Model (CEM) model. The test results can be concluded that 1) the CK test are still low; 2) AK test results are still low; 3) TK test results are still low; 4) ACK test results are still low; 5) TCK test results are still low; 6) TAK test results are still low; 7) TACK test results are still low; and 8) 87% of equality education tutors require training to improve TACK skills.

**Keyword:** Needs Analyst, Technological, Andragogical, Content, Knowledge and Training.

**INTRODUCTION**

Generating qualified Human Resources (HR) in various fields is one of the important roles of education, regardless of profession and wherever they take part. To build the nation and improve the quality of education, various things are done, one of which is through character or personality development as a whole by improving the quality of education services. We must admit that the quality of education services is still one of the fundamental problems that we must solve gradually and consistently. Just look, based on a report from the U.S. News & World Report in 2021, we are still ranked 55th out of 73 countries surveyed. This institution measures the ranking by compiling three parameters, namely 1) whether the education system is developing well; 2) whether the country is one of the considerations for other people to continue their studies or education there, and 3) whether the quality of education in the country is high. This means that for the Southeast Asia Region alone, we are still far below Singapore (ranked 19<sup>th</sup>), Malaysia (ranked 38<sup>th</sup>), and Thailand (ranked 46<sup>th</sup>) (Jonathans & Metboki, 2021; Rondinone et al., 2022). Based on these data, we must continue to improve the quality of education from any educational path, both formal and non-formal, therefore every institution, agency, or organization, whether government or private, has a responsibility to improve the quality of education.

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Advances in science and technology have brought a new face to today's world activities, there has been a change from conventional activities to technological activities (Rasa, & Laherto, 2022; Tri & Dung, 2022). This requires all existing people to be able to adapt quickly to all changes that exist, to survive, with a quality life. Facing such a big change requires preparation and adaptation for all humans who want to survive.

Education 4.0 requires educators to master technology to be integrated with the learning process. This is to the regulation of the minister of national education No. 16/2007 which states that an "educator must have competence in the field of information and communication technology" (Yarrow et al., 2022; Dyah et al., 2022). Competence in the field of information and communication technology serves to develop themselves and support the learning process. Muhammad et al (2022); Singerin (2022) continues that this statement is corroborated by PERMENDIKBUD No. 22/2016 in the standard process, namely, the learning principle used is that educators must be able to utilize information and communication technology to improve the efficiency and effectiveness of learning. To achieve that goal, one of the foundations that must be strengthened is the quality of the skills of educators, because the skills possessed by every actor in any educational institution, will be able to improve the performance of the educational institution. These skills are very broad in their aspects, not only aspects of knowledge, attitudes but also behavior.

Educators, in this case, of course, are not only educators who are in the formal education path called teachers but also educators in the non-formal education path or by other names, namely tutors for education (Li et al., 2022). Technological Pedagogical Content Knowledge or abbreviated as TPACK is a theoretical framework that is the development of Pedagogical Content Knowledge (PCK) (Shinas et al., 2013; Drummond & Sweeney, 2017). PCK was first proposed by Shulman in 1986, he said, an educator should be able to master Pedagogical Knowledge (PK) and Content Knowledge (CK) (Koehler et al., 2013; Akyuz, 2018). The combination of PK and CK means that an educator is not only required to master the content/material but also pedagogy in the learning process.

TPACK training is also a learning approach that is very relevant in the learning period of the current technological era. Because the TPACK approach combines aspects of knowledge (Knowledge/K), how to teach (Pedagogy/P), and mastery of learning content according to the educator's field (Content/C) with ICT (Technology/T). At the heart of good teaching with technology are three core components: content, pedagogy, and technology, plus the relationships between them. These three knowledge bases form the core of the Technological Pedagogical and Content Knowledge (TPACK) framework (Papanikolaou et al., 2017). Koehler & Mishra (2009) build the TPACK framework on the concept of PCK which was first popularized by Shulman (1986) in his article entitled "Those Who Understand" by including additional items in the form of Knowledge Technology (TK).

But of course, TPACK is not training that is relevant to the needs of tutors, considering the characteristics of non-formal education programs are very different from those of formal education. According to Lowe (1975), educating adults and educating children are two different things. In children, it takes place in the form of identification and imitation, while in adults it takes place in the form of self-direction to solve life's problems. For this reason, it is necessary to adjust the child's

learning approach to that of adults. This research aims to analyze the tutor's knowledge of TACK skills and see how much equivalence education tutors need to improve their TACK skills.

## **METHODS**

The type of research used is descriptive research, namely research that seeks to describe, describe, and describe phenomena that occur in a real, actual, systematic, and accurate manner regarding the facts, and relationships between the phenomena being investigated (Rukajat, 2018).

The indicators and aspects that are used as benchmarks to obtain this need analysis data are:

- Content Knowledge (CK) of equality education tutors.
- Andragogical Knowledge (AK) of equality education tutors.
- Technological Knowledge (TK) of equality education tutors.
- Andragogical Content Knowledge (ACK) of equality education tutors.
- Technological Content Knowledge (TCK) of equality education tutors.
- Technological Andragogical Knowledge (TAK) of equality education tutors.
- Technological Pedagogical Content Knowledge (TACK) of equality education tutors.
- Need for equality education tutors require TACK training.

The development method used in this research is the research and development (R&D) method with the Critical Event Model (CEM) model (Mulastin et al., 2016; Anwar et al., 2019). However, this research is limited to the defined stage, which is to analyze the TACK knowledge of equality education tutors and identify the needs of equality education tutors to improve TACK skills.

This research uses a population of equal education tutors, where the research sample used to obtain the required data is tutors who are in the working area of West Sumatra Province with a total. The data collection technique used in this research is a test method (Wijaya et al., 2020) to determine the TACK of equivalence education tutors and a questionnaire to determine the tutor's need for training to improve TACK skills, for Needs analysis tests and questionnaires are distributed live.

Furthermore, the test data and questionnaires that have been collected were analyzed using percentage data analysis techniques. The data analysis technique used in this research is descriptive statistical analysis (Sileyew, 2019), where this descriptive statistic does not analyze and draw conclusions that apply to the general public. The presentation of data in descriptive statistics can be done using ordinary tables, frequency distributions, graphs, and explanations of data groups other than mode, median, average value, group variation, and standard deviation (Sugiyono, 2012).

## **RESULTS**

This research was conducted by distributing a needs analysis questionnaire directly to the CK selected as a sample of 40 equality education tutors, along with the results of CK test. Of the 45 total items distributed for content knowledge. The test results concluded that 45% of tutors answered correctly and 55% answered incorrectly. For more details, see Fig 1 below.

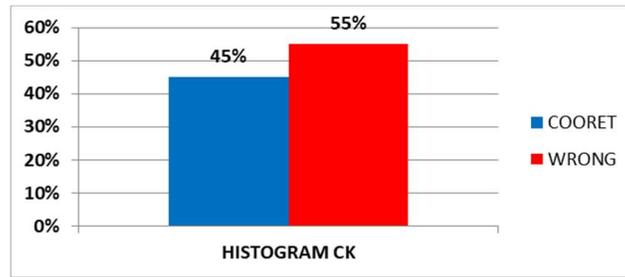


Figure 1. CK test results diagram for equality education tutors

CK is knowledge related to the subject matter being taught (eg mathematics, language, social, art, and so on) (Schmid et al., 2020; Schmid et al., 2021). In this aspect, social studies teachers can understand the lessons to be taught, including knowledge of facts, concepts, theories, and procedures in a particular field, knowledge of frameworks that can organize and relate ideas and knowledge of rules, and content evidence. Koyuncuoglu (2021) states that there are seven categories of knowledge domains that are important to be mastered by an educator to manage to learn effectively. One of them is content knowledge, where CK is knowledge of science that includes substantive and syntactic aspects.

CK is described as the result of knowledge of teaching materials that can be seen from pieces of work, where CK must be owned by educators. CK for educators is important as mastery of the demands for competency standards. This knowledge contains how educators can organize material content. Based on this description, it is in CK. Shulman (1986); Koyuncuoglu, (2021) states that there are seven categories of knowledge domains that are important to be mastered by an educator to manage to learn effectively, one of them is CK, namely knowledge about science that includes substantive aspects and syntactic aspects. CK is described as the result of knowledge of teaching materials that can be seen in the work of educators (Kulgemeyer & Riese, 2018). Educators are required to have a good understanding of CK because good CK from educators will have a good influence on the teaching strategies that will be chosen or used by educators and this will create a conducive learning opportunity. Because educators who have this will teach by simultaneously constructing material elements in job memory, prioritizing students' prior knowledge, delivering logical and systematic material, and paying attention to the prerequisites of the material to be studied.

Knowledge of a concept, theory, and procedure in the particular field to be taught including, knowledge of the framework that can organize and relate ideas and knowledge of rules, and also evidence of the content that educators need to understand. Opinions explain the framework for analyzing the characteristics of CK based on certain levels. Thompson et al (2018) said there are three levels, namely: Level 0, Level 1, and Level 2; Karahasan (2010) mentioned that there are levels of PCK, namely: Level 0 (inadequate), Level 1 (good), Level 2 (strong). Table 1 describes the main characteristics of CK that must be owned by educators.

CK for educators is a prerequisite for one of the demands for competency standards. This knowledge contains how prospective educators and educators can organize material content. This study uses the Karahasan theory (Purwoko, 2017), which only takes a few indicators to analyze the characteristics of

educators' CK. In the knowledge component of the content, the characteristics are 1) Level 0: unable to state the definition correctly, unable to use notation correctly, unable to interpret and use different representations easily, difficulty seeing connections between different topics/sub-units different; 2) Level 1: states the definition, uses notation correctly, interprets and uses graphical and non-graphical representations, sees the connection between different topics/subunits; and 3) Level 2: states the definition correctly, uses notation with correctly, interprets and uses graphical and non-graphical representations.

Tabel 1. The description of main characteristics of CK

Component	Level 0	Level 1	Level 2
CK	<ul style="list-style-type: none"> <li>– Unable to express definitions correctly</li> <li>– Unable to use appropriate notation sensibly</li> <li>– Use only declarative and/or procedural questions unable to interpret and use different representations easily</li> <li>– Face difficulty when there is a need to see connections between different topics/subunits</li> </ul>	<ul style="list-style-type: none"> <li>– Express definitions correctly</li> <li>– Use appropriate notation sensibly</li> <li>– Still use declarative and/or procedural questions</li> <li>– Interpret and use graphical and other representations</li> <li>– See connections between different topics/subunits</li> </ul>	<ul style="list-style-type: none"> <li>– Express definitions</li> <li>– use appropriate notation sensibly</li> <li>– Use all type of questions (declarative, procedural, and conditional) in an appropriate positions</li> <li>– Interpret and use graphical</li> <li>– Other representations sensibly</li> <li>– See connections between different topic/subunits and move among them smoothly</li> </ul>

(Loewenberg Ball et al., 2008; Karahasan: 2010)

Furthermore, for AK, the test results concluded that 34% of tutors answered correctly and 66% answered incorrectly. More details can be seen in Fig 2 below:

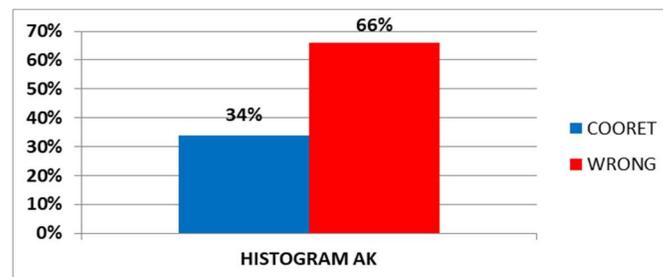


Figure 2. AK test results diagram for equality education tutors

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AK is understood as knowledge about the nature of teaching and learning, including teaching methods, classroom management, lesson planning, and student learning assessment (Saprianto & Solfema, 2019). This is of course related to processes, strategies, procedures or steps, and teaching and learning methods. Andragogy comes from the words Andros or Aner, which means adult, and agogos which means to lead. So andragogy is leading adults. Knowles (Marzuki, 2010), defines andragogy as skills and knowledge regarding the provision of adult learning materials or often referred to as the art and science of teaching adults. In addition, according to him, andragogy is a method of support for adults to be able to learn as much as possible. Scanlan & Darkenwald (1984) assess that a person is declared an adult if he has gone through a period of basic education and has reached a productive age, namely since he was 16 years old. Therefore, adults are declared as people who have matured biological, social, and psychological functions, obligations, and positions in life. But that maturity will also depend on the socio-cultural context. Maturity is a sign that often undergoes change and evolution to grow up. In addition, Dugan Leird in (Hendrayat, 2005) states andragogy is how adults learn. Dugan Leird believed that adults learn through processes that differ from children's styles of accepting new behaviors.

Further, Knowles (1996), states that the adult learning process will be maximally successful if it is implemented physically and mentally emotionally. The andragogy requirement is that adults learn to be involved in identifying their learning interests and planning how these needs can be met. Learning for adults must be active, not passive (Danim, 2010). In addition, Taylor (2009) cites the opinion of Zmeyof who defines the adult learning process as prioritizing rational guidelines for learning activities and teachers in planning, actualization, assessment, and improvement.

### **3.1 Characteristics of andragogy learning**

Adult education is a process in which individuals who already have a social position become adults and apply integrated and continuous learning activities in the hope of creating changes in skills, behavior, norms, and capabilities. In addition, it should be noted that the characteristics of adult learning according to (Tamat, 1984), namely: 1) learning is increasingly leading to a path of maturity; 2) the main lessons are implementing experiments, deliberation, solutions to difficulties, education, simulation, and realization; 3) adults will be ready to train themselves if the learning materials according to what they experience are very influential in the affairs of their lives; and 4) Centralized learning is oriented to the development of abilities in each of its activities.

### **3.2 The principles of andragogy learning**

According to Lindeman (1926) there are five principles of adult learning, namely: 1) adults are affected by learning if the learning is sufficient for their needs and desires, therefore the adult learning process is to find the needs and desires of students; 2) life-centered is an adult learning orientation. Therefore, adult learning must relate to life, not lessons; 3) The most memorable source of learning for adults experiences, so the learning method uses experience and analysis; 4) adults have a need that contains to guide themselves, therefore, teachers in learning by developing knowledge is experience; and 5)

personal dissimilarity between adults increases often with age, therefore the learning model, time, place, and pace of learning need to be tolerated.

In using the andragogy trainer approach, of course, some principles can be applied in public speaking training. The application of the principles of andragogy put forward (Solfema, 2013) in terms of: 1) Lesson planning: Regarding the need to develop a sense of responsibility in students, one of the basic findings from behavioral science research shows that adults tend to feel responsible for a decision according to the proportion of their participation in planning and decision making. Accordingly, adults will only learn seriously if they are involved in the formulation of learning goals and encouraged to achieve these goals. Adults will learn well if they are directly involved in the formulation of their learning activities. Still related to the need to use a joint planning mechanism for learning activities, (Soedomo, 1989) suggests that students who are involved in planning activities are given serious trust; and 2) Educator performance: The performance of educators in the classroom will affect the motivation of students in the learning activities they lead in a learning activity. While motivation itself is positively correlated with learning achievement as many adult education experts have stated, for example by Boshier and Mezirow, Miller, and Rubenson (in Soedomo, 1989), a cool trainer's appearance will be of good value to trainees, thereby increasing their encouragement to Even though the trainees have low abilities, they will always encourage them to achieve success in the learning process, and vice versa. To be able to perform well in the learning process, educators must be able to apply the principles of andragogy in their performance. The performance of educators can be seen in the way they communicate and their physical appearance.

To be able to look good in communicating with learning participants, (Boggs, 2019) requires that a teacher in this case must have several abilities, namely: 1) the ability to increase positive attitudes in students; 2) the ability to be forthright and flexible; 3) ability to display a passionate attitude in learning activities; and 4) The ability of educators to manage student behavior.

Regarding the application of andragogy principles in physical appearance, several experts suggest several things that educators should do, including 1) perform a variety of body movements; 2) using eye contact with all students; 3) reflecting natural hand movements; 4) transition of motion or stepping from one position to another; 5) showing fun facial expressions; and 6) pay attention to how to dress carefully.

Furthermore, if it is associated with the mastery of learning materials presented by educators, (Solfema, 2013) says that high mastery can only be expected from trainees who take part in learning activities in passionate situations (away from boredom), full of concentration, intimacy, openness, and enthusiasm mutual trust.

**Learning materials:** Concerning the adult learning approach that must be oriented to the problems they are experiencing, then in organizing and selecting learning materials that must be delivered, discussed, solved, and worked on during the learning process, they must be oriented to the aspects that are being experienced by students (Knowles, 1996).

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**Learning methods:** Learning methods in theory learning activities, regardless of the method used by educators, what needs to be applied is that the method should: 1) problem-oriented; 2) strive and move students to be active; 3 encourage students to share their daily experiences; 4) to create cooperation, both between fellow students and educators; and 5) more experience sharing.

**Learning environment management:** Almost all experts agree that environmental management is an important aspect of the effectiveness of adult learning (Soedomo, 1989). Therefore, educators must apply the principles of andragogy to the learning environment for the success of adult learning activities.

Management of the physical environment, among others, relates to the arrangement of the room or study room that must be in the best possible way to ensure sufficient air and light enter for comfortable learning. Still related to the physical environment, namely, the arrangement of seats will affect the activities of students in the following learning. Still related to the management of the physical environment, students should be given the freedom to use and fulfill learning facilities without comparing one participant to another. The freedom to use learning tools without comparing one to another can reflect the true equality of rights needed in the adult learning process (Lunandi, 1989). Still related to the management of the physical environment, (Solfema, 2013) said that the freedom for students to use and equip learning facilities and infrastructure is an important aspect of managing the adult learning environment. The so-called andragogy approach in this study is the performance of educators, learning materials, learning methods, and management of the learning environment.

### 3.3 Andragogy learning steps

The implementation of an andragogic learning process should follow procedures, such as 1) building an age-appropriate learning atmosphere; 2) compiling an organizational structure for collaborative planning; 3) analyzing learning needs; 4) limiting learning objectives; 5) developing learning activity designs; 6) carrying out activities; and 7) re-diagnosing learning needs (evaluation) as a learning partner is not like the degree between the trainee and the trainer.

Adults can be defined in three perspectives, namely: 1) Biologically, each individual is declared an adult if he has been able to reproduce; 2) Psychologically, each individual is declared an adult if he already has an obligation for the chosen activities and considerations; and 3) Sociologically, each individual has declared an adult if he has applied for his usual social position. Based on what has been described, it can be determined that andragogy is a skill and expertise in how to help adults learn. In this case, it is stated that the support procedure is not the same as for children, because the characteristics they have are also different. Thus, the training aimed at adults requires different ways and methods from pedagogical training. Therefore, a different approach is needed in the form of andragogy, including participation in the position of training participants, and other provisions related to lesson materials, implementation time, and others.

Furthermore, for TK, the test results concluded that 49% of tutors answered correctly and 51% answered incorrectly. More details can be seen in Fig 3 below.

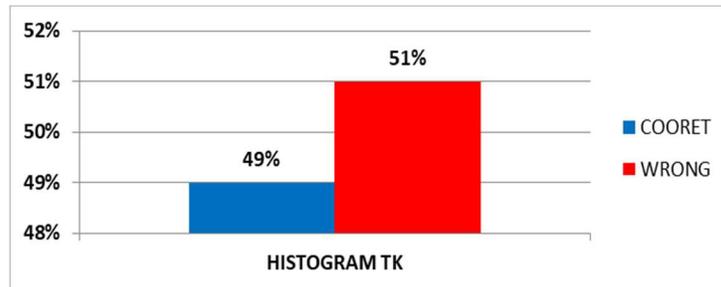


Figure 3. TK test results diagram for equality education tutors

TK is knowledge of the relationship between subjects and technology. This includes knowledge of technologies that are influential and used in exploring specific content disciplines (Schmidt et al., 2020). Schmidt et al (2020), define TK as the ability of educators in the aspect of how educators make use of technology as content in learning relevant materials. TK describes the knowledge of the interrelationship between technology and content (material). Educators discover new things and understand concepts in content with the help of specific technologies. The TK domain is more specific on how to influence and limit each other between knowledge and content (Koyuncuoglu, 2021). The choice of technology also affects how to choose learner content, because learning content can be limited by technology and vice versa. Therefore, in every learning opportunity, the selection of content and technology needs to be a serious concern of the manager.

Furthermore, for ACK, the test results concluded that 37% of tutors answered correctly and 63% answered incorrectly. More details can be seen in the following Fig 4 below.

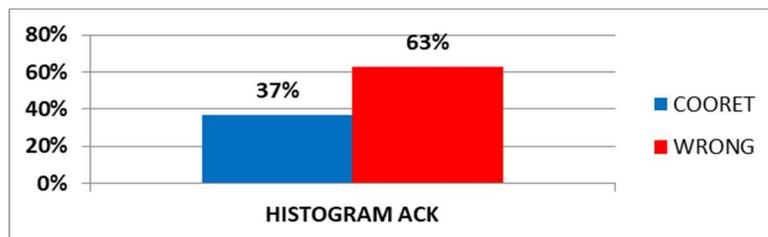


Figure 4. ACK test results diagram for equality education tutors

ACK is knowledge of the effects of technology in the teaching and learning process as well as the ease and constraints of technology related to the design and strategy of andragogy of various information that appears all the time that requires us to be wise in responding, which is expected to be able to distinguish good and bad things from the information. Because not all of the information that appears produces accurate information, sometimes information that we consider to be the truth leads us astray (hoax). Hoax is news that is not true and tries to fool the public. Plus we are also involved in spreading it (Afriza & Adisantoso, 2018). Our policy of receiving information can avoid receiving hoax information. However, if we stutter in utilizing technology, it will affect the implementation of daily tasks, especially for educators. At this time information has a real role, and technology is developing very rapidly, of course, it all has an impact on a variety of daily adult activities, including the education sector. The rapid development of technology is also accompanied by education experiencing very

rapid development, including the existence of digital learning (digital learning). Knowles (1979) indicates of technology is one of the important forces in adult learning, with technology all have the opportunity to learn, not the case with adults, therefore it is necessary to think about how educational activists use technology in designing education for adults.

Danial et al (2018), suggest the learning method (Knowledge) ACK is a learning process when tutors and managers understand adults as different conditions from children. This can be seen from any perspective, whether learning time, orientation in learning, adults make learning not a burden in life, but by learning adults realize that, there will be an increase in understanding, attitudes, and skills that they have not had. Or it can also be interpreted as a process of problem finding and problem-solving), whether it's a problem now or a problem that will come. Because of differences in characteristics and experiences, the concept of andragogy is very important to be given in the adult learning process. ACK is something that must be given to all adults when they learn. Meaningful learning will be obtained if managers and educators understand the learning community.

Furthermore, for TCK, the test results concluded that 48% of tutors answered correctly and 52% answered incorrectly. More details can be seen in Fig 5 below.

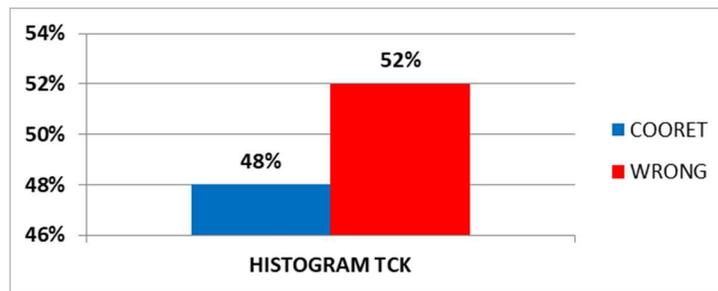


Figure 5. TCK test results diagram for equality education tutors

TCK is knowledge of the relationship between subjects and technology. This includes knowledge of technologies that are influential and used in exploring specific content disciplines (Schmidt et al., 2020). Schmidt et al (2020), define TCK as the ability of educators in the aspect of how educators make use of technology as content in learning relevant materials. TCK describes the knowledge of the interrelationships between technology and content (material). Educators discover new things and understand concepts in content with the help of specific technologies. The TCK domain is more specific on how to influence and limit each other between knowledge and content (Koyuncuoglu, 2021). The choice of technology also affects how to choose learner content, because learning content can be limited by technology and vice versa. Therefore, in every learning opportunity, the selection of content and technology needs to be a serious concern of the manager.

Furthermore, for TAK, the test results concluded that 44% of tutors answered correctly and 56% answered incorrectly. More details can be seen in the following Fig 6 below.

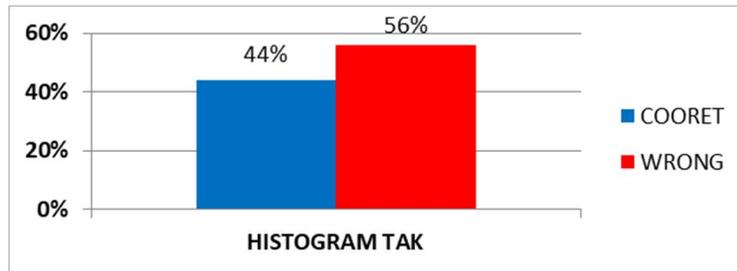


Figure 6. TAK test results diagram for equality education tutors

TAK is knowledge of the effects of technology in the teaching and learning process as well as the ease and constraints of technology related to the design and strategy of andragogy of various information that appears all the time that requires us to be wise in responding, which is expected to be able to distinguish good and bad things from the information. Because not all of the information that appears produces accurate information, sometimes information that we consider to be the truth leads us astray (hoax). Hoax is news that is not true and tries to fool the public. Plus we are also involved in spreading it (Afriza & Adisantoso, 2018). Our policy of receiving information can avoid receiving hoax information. However, if we stutter in utilizing technology, it will affect the implementation of daily tasks, especially for educators.

Furthermore, for TACK knowledge, the test results concluded that 31% of tutors answered correctly and 69% answered incorrectly. More details can be seen in the following Fig 7 below.

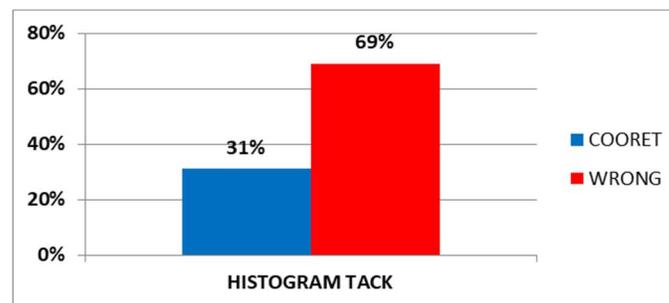


Figure 7. TACK test results diagram for equality education tutors

TACK is knowledge of the complex interactions between domains of knowledge principles content, andragogy, and technology (Knowles, 1979). Learning in this modern era requires an understanding of tutors to be able to collaborate with technology. So it is not just an Andragogy aspect content and technology are also considered in implementing modern classrooms and innovative learning (Parr & Ward, 2011; Septiyanti, Inderawati, & Vianty, 2020). TACK integrates complex technology in learning by paying attention to three aspects such as andragogy, content, and the technology itself in learning was developed by educators effectively. The application of TACK in learning makes equivalence education tutors able to combine every component in the learning plan. Learning designs that use ICT use learning methods that make students able to learn independently and actively and provide material with the correct concept and according to the needs of students.

The next question was asked by the equality education tutor how much they need to attend training related to improving TACK skills. 87% of tutors answered that they needed training and only 13% answered that they did not need TACK training to improve their TACK skills. More details can be seen in Fig 8 below.

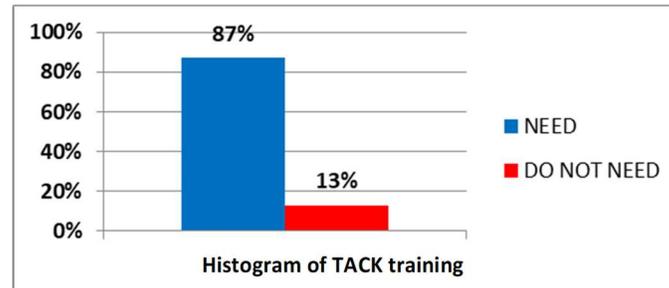


Figure 8. Equality education tutors need TACK training

Based on the explanation above, it can be seen that the teacher's TACK skills are low. Learning outcomes are influenced by many factors, both internal and external factors. In conclusion, one of the factors that affect student learning outcomes is educators, the characteristics of educators, especially the mastery of TACK skills. Educators are the most decisive factor in student learning outcomes. TACK skill is one of the skills that must be possessed by educators. To improve one's skills, training is needed. It is important to provide training to improve the quality of abilities concerning work, thinking, and skills. Furthermore, the purpose of training, according to Brockmann et al (2008), is to improve the knowledge, skills/competence, and attitudes of educators as well as to improve the quality and productivity of the organization as a whole, in other words, the purpose of training is to improve performance and in turn increase competitiveness. In general, the training objectives are as follows: 1) skill development so that work can be completed more effectively and quickly; 2) increasing understanding so that the rationality of work can be completed; and (3) developing attitudes so that it creates skills to work together with peers, and superiors.

Further explained by Gian & Bao (2021), training is a learning process, both practical and theoretical, in the context of improving and developing academic, social, and personal competencies in aspects of knowledge, skills, and attitudes, and is useful for trainees in improving performance on assignments or work as tutors. in the management of learning which is their responsibility. With this training, it is hoped that there will be equivalence tutors who are competent in their fields. According to Admodiwirio (2010), "changes in one's knowledge, attitudes and skills are obtained through training because there is a learning process".

Management of training should be carried out appropriately by training participants, institutions, and the community appropriately and professionally is obtained from good training management. An effective training program is characterized by a change in attitudes and skills, there is an increase in the learning motivation of trainees to analyze the training material, a strong memory of the training material, and the ability to apply the content or training material in the world of work, for that we need a training guide so that the training can achieve the expected goals.

## CONCLUSIONS

Based on the research results conclusions are obtained, namely: 1) CK tests are still low; 2) AK test results are still low; 3) TK tests are still low; 4) ACK tests are still low; 5) TCK tests are still low; 6) TAK test are still low; 7) TACK test are also still low; and 8) 87% of Equality Education tutors require training to improve TACK skills. After testing the equality education tutor, it can be concluded that the tutor needs training in improving TACK skills.

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