

The Actualization of Independent Character Values and Student Integrity in TPACK-Based Learning and Character-Based Learning Media

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Abstract

This article aims to describe the actualization of the values of independent character and integrity learners in TPACK based learning and character-based learning media. Technological Pedagogical and Content Knowledge (TPACK) is learning that combines the integration of technology, pedagogical approaches and mastery of material in learning, while learning media is integrated with character content. This research was carried out in learning Pancasila and Citizenship Education (PPKn) in high school using an experimental research design with purposive sampling technique. Data collection techniques using questionnaires, observation and documentation. Data were analyzed by descriptive data analysis techniques. In this learning process the values that are integrated are the values of independent character and integrity, namely through 1) real examples, 2) habituation, upholding discipline, and 4) giving motivation. Based on the results and discussion, it is shown that through TPACK-based learning and character-based learning media, the values of independent character and integrity can be actualized significantly. The implementation is done by habituation, giving motivation, and discipline. Through learning activities the teacher as a role model directly empowers characters which will later become civilizing and habits in students.

Keywords: TPACK; media; characters; Pancasila and Citizenship Education.

Introduction

Learning activities are the process of helping students to learn to do something and supporting them to think about what they are learning. Therefore, the right learning design is the main key in realizing the designed learning objectives. Education in the 21st century is developing along with the rapid development of science and technology. The 21st Century Learning, according to the study conducted Brun, the 21st century is the learning using information technology that supports the implementation of learning (Huda et al., 2017). Therefore, the demands of the development of learning requires teachers to master various skills related to knowledge and technology.

The rapid development of the times not only makes teachers have to master

pedagogical material but also adapts to technological developments, so *Technological Pedagogical Content Knowledge* (TPACK) is a competency that must be possessed by teachers as professional educators. Mishra & Koehlr suggested that TPACK is a combination of knowledge about content/material, pedagogy, and technology integration in learning (Nofrion et al., 2012). This TPACK competency is the best way to face today's learning challenges. In line with Cox & Graham TPACK is formed from a combination of 3 types of basic knowledge, namely Technological Knowledge (TK), Pedagogical Knowledge (PK), Content Knowledge (CK). The results of the combination of these 3 basic pieces of knowledge produce 4 new knowledge, including Pedagogical Content Knowledge (PCK), Technological Content Knowledge

(TCK), Technological Pedagogical Knowledge (TPK), and Technological Pedagogical Content Knowledge (TPACK) (Rahmadi, 2019).

Referring to Permendikbud Number 23 of 2016 concerning Educational Assessment Standards Article 1 paragraph (3) states that learning is a process of interaction between educators and students, as well as students with each other, equipped with teaching materials that support learning. Therefore, TPACK-based teaching materials are indispensable in today's learning. Based on the statement above, TPACK-based teaching materials are in accordance with the demands of the 21st century that utilize technology in classroom learning (Asikin & Amelia, 2020). The era of the covid-19 pandemic is the right time for educators to apply teaching materials that integrate technology. However, according to (Festiawan, 2020), the policies adopted are still not fully implemented due to the lack of mastery of educators' science and technology and can have an impact on reducing the quality of online learning. Learning in the 2013 curriculum applied in Indonesia is a manifestation of the implementation of 21st-century learning (Andrian & Rusman, 2019).

Referring to the objectives of the 2013 curriculum which was published based on PERMENDIKBUD No. 69 of 2013 states that the purpose of the 2013 curriculum is "to prepare Indonesian people to have the ability to live as individuals and citizens who are faithful, productive, creative, innovative, and effective and able to contribute to the life of society, nation, state, and world civilization" (Noor, 2018). Thus, education is expected to be able to form students who have personality (affective), knowledge (cognitive), and skills in order to build superior human resources in accordance with the mandate of national education goals. In addition, the 2013 curriculum applies a scientific approach by integrating 4 things, namely strengthening character education (PPK), literacy, HOTS (High Order Thinking Skill), and 4C (communication, collaboration, critical thinking, and creativity) (Suprayitno, 2020).

In general, the subject of Pancasila and Citizenship Education (PPKn) is a subject that

has the following objectives: (1) to create characters that are in accordance with Pancasila morals individually and socially; (2) have a positive attitude towards the implementation of the 1945 Constitution of the Republic of Indonesia; (3) think critically, rationally, and creatively and have the spirit of nationalism and love for the homeland which is imbued with the values of Pancasila, the 1945 Constitution of the Republic of Indonesia, the spirit of *Bhinneka Tunggal Ika*, and the commitment of the Unitary State of the Republic of Indonesia, and (4) participate actively and responsibly become citizens in a society that is in accordance with the nation's culture which has an order of life in accordance with the rules of the teachings of God Almighty (Daniarti, 2017). In line with Kesuma (2012: 34), Civics learning is a group of subjects that aims to increase students' insight into their status, rights, and obligations as citizens. Therefore, it is hoped that the Civics subject is able to create good personality qualities of students in schools and to create quality students in the life of society, nation, and state.

Therefore, strengthening character education (PPK) is the main thing that must be included in the teaching materials for the PPKn subject. Considering the importance of character values in the content of teaching materials, Civics subjects, especially at the high school level, need to integrate character. The character integration aims to balance the cognitive and affective domains of students. According to Eliasa, (2014:201) defines character as follows: "*Character refers to a series of attitudes, behavior, motivation, and skills. Character includes some behaviors such as a want to do the best, intellectual capacities like critical thinking and moral reason, behavior like being honest and responsible, maintain moral principles in a full unfair situation, interpersonal and emotional intelligence.*"

In line with the above understanding, Thomas Lickona states that character is "*knowing the good, desiring the good, and doing the good*" (Yaumi, 2016). Based on the two definitions above, it is concluded that character is formed from knowledge of good and habits (*habits*). The long-term goals of

strengthening character education are listed in the contents of Indonesia's national education goals. While the short-term goal of strengthening character education is to keep students away from other deviant and negative behaviors at school and in everyday life (Mustofa & Setiyowati, 2021). There are 18 pillars of national character values, namely (a) religious, (b) honest, (c) tolerance, (d) discipline, (e) hard work, (f) creative, (g) independent, (h) democratic, (i) curiosity, (j) national spirit, (k) love for the homeland, (l) respect for achievements, (m) friendly/communicative, (n) love of peace, (o) love of reading, (p) environmental care, (q) social care, (r) responsibility (Ahmadi et al., 2020).

However, the 18-character values are an effort in character strengthening education and the embodiment of the 5 (five) main character values that must be developed in schools, namely as follows; (1) religious, (2) nationalist, (3) independent, (4) mutual cooperation, and (5) integrity (Atika et al., 2019). As explained above, the importance of integrating TPACK-based teaching materials while still paying attention to the character of students is an important effort in balancing knowledge competencies without forgetting the rules of behavior/attitude. Ronsenberg in the theory of the relationship between cognitive-affective consistency illustrates that knowledge and attitude competence will go hand in hand (stable) (Nurshabrina, 2019).

Based on the description above, it can be concluded that the current learning process requires technology-based learning. 21st-century learning is an interactive type of learning by involves teacher skills in understanding the characteristics of students. In addition, the integration of appropriate content is a means that must be prepared by educators in an effort to achieve learning goals in the cognitive, affective, and psychomotor domains.

Literature Review

In the literature on the actualization of independent character values and student integrity (Huda et al, 2017; Nofrion et al,

2012; Rahmadi, 2019; Permendikbud number 23, 2016; Asikin & Amelia, 2020; Festiawan, 2020; Andrian & Rusman, 2019; Noor, 2018; Suprayitno, 2020; Daniarti, 2017; Kesuma, 2012; Eliasa, 2014; Yaumi, 2016; Mustafa & Setiyowati, 2021; Ahmadi et al, 2020; Atika et al, 2019; Nurshabrina,2019), it is referred to as a teaching method (Sugiyono,2018).

Method

Setting and Participant

This research was conducted in August-September 2021 in the odd semester of the 2021-2022 academic year. The technique of determining the sample of this research is using a non-probability sampling technique by taking samples that are in accordance with the research objectives (purposive sampling). So that the subject of this research is all high school students who sit in class XII IPS 2 at UPT SMA Negeri 1 Palembang which is located on Jl. Srijaya Negara no. 10 Bukit Besar, Palembang City, South Sumatra 30139. This study uses a quantitative approach with a pre-experimental research design. According to (Sugiyono, 2018) "This research method is scientific research to obtain data with specific purposes and uses." The design used in this study is a one-group pretest-posttest design. This research was carried out for 4 meetings with the subject of PPKn in KD 3.2, namely "Protection and law enforcement in Indonesia". The data collection tools used in this study were observation, questionnaires, tests, and documentation.

Data Collection

The observation instrument in the form of a checklist is used to see the improvement of the character of students, namely independence and integrity. Data collection instruments in the form of pretest and posttest questions were used to measure students' knowledge before and after learning to use TPACK-based teaching materials. Questionnaires/questionnaires using a Likert scale of 1-4 regarding the assessment of teaching materials and self-assessment of the character of students are given to students at the end of the lesson to find out whether the

application of teaching materials is correct and able to improve the character of students. Before being tested on students, the product in the form of TPACK-based teaching materials has been tested for feasibility by experts (expert review) in the field of Civics material/content, media, and language.

Result and Discussion

TPACK -based learning is the ability of an educator in implementing the application of technology, pedagogic strategies, and mastery of the material in the learning. According to Koehler & Mishra, TPACK in learning consists of 3 main components, namely (*technological knowledge, content knowledge, and pedagogical knowledge*) of the three main components resulting in 2 new components (Sintawati & Indriani, 2019). So that through TPACK-based learning it is very important for a teacher and is expected to be developed in learning, so that it can help teachers and prospective teachers in responding to the challenges of 21st-century learning and the challenges of the industrial revolution 4.0 (Tondeur et al., 2017).

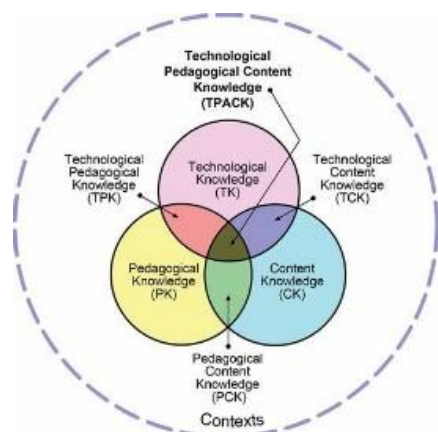


Figure 1. TPACK Framework, Kohler & Mishra (2013)

Technological knowledge, in learning, is the integration of appropriate technology by teachers such as increasing the ability to use technology that can answer the challenges of rapid changes in information and communication technology (Rosyid, 2017). In this study, researchers applied to learn using a website combined with e-books and interactive

learning videos. Thus, utilizing some of the software used in learning. In line with (Sintawati & Indriani, 2019), technology-based learning is learning that is prepared by utilizing software in learning so that it can distribute optimal learning information to students. The indicators in kindergarten are, "1) knowing ways to solve problems technically, 2) easy to understand the technology used, 3) Using the latest technology, 4) Knowing different types of software (Tondeur et al., 2017).

Pedagogical Knowledge is a strategy that appears when teachers apply technology in learning (Rahmadi, 2019). Pedagogy is a way for teachers to develop a learning strategy in lesson planning which is arranged in the lesson plan (RPP). The ability to compose a TPACK-based lesson plan is adjusted to the characteristics of the students and the learning objectives to be achieved. Using this pedagogic approach, teachers must be able to apply the latest learning methods and according to learning needs. In line with (Susilawati & Khaira, 2021), the most important goal in the TPACK-based learning strategy is to assist teachers in aligning the material delivered and the technology used in learning. This pedagogical ability relates to how a teacher understands the characteristics of students. So that the material delivered through the help of technology-based learning media can be actualized and support the realization of the desired learning objectives in the cognitive, affective, and psychomotor components (Busyaeri & Muharom, 2016).

Therefore, this study uses an approach to *student-centered learning* that is in accordance with the K-13 national curriculum using a model *problem-based learning*. According to (Rosyid, 2017), the learning model chosen must be able to create an active and conducive classroom atmosphere. According to Somekh, a learner-centered pedagogical strategy is a right support for implementing technology-based learning (Koh, 2019). Therefore, it is appropriate to apply learner-centered learning in learning, so that there is a balance in the application of technology in learning.

Content Knowledge is a definition of how teachers master the disciplines to be taught. The discipline in question is the teacher's mastery of the concept of planting the material being taught. Civics subjects generally have a

goal, namely 1) to raise character, 2) to raise a positive attitude, 3) to invite critical thinking, and 4) to actively participate and be responsible citizens (Daniarti, 2017). Instilling the concept of correct knowledge is the key to realizing learning objectives. In line with (Dharma, 2013) Civics learning is a group of subjects that aims to increase students' insight into their status, rights, and obligations as citizens.

This research was carried out for 4 meetings, by applying KD 3.2 with the material of protection and law enforcement in ensuring justice and peace. Referring to the 3 main components of TPACK proposed by Koehler & Mishra, the Technological knowledge component is implemented by applying teaching materials in the form of learning media and technology-based learning resources, namely websites, e-books, and learning videos. To fulfill the component *Pedagogical Knowledge* by choosing the approach *Student-Centered Learning* and using a problem-based learning model. The material presented in KD 3.2 is the right material in teaching students about independent character and integrity.

The students character development, especially independent character and integrity is designed by making learning plans that are in accordance with the appearance of the desired character. Ministry of Education and Culture (2014), the implementation of the right learning model must be structured, starting with providing a stimulus, problem statement, data collection, data processing, verifying, then drawing conclusions (Ramdani & Marzuki, 2019).

The Students Character

Education is a manifestation of character building as mandated by Pancasila and the 1945 Constitution of the Republic of Indonesia. According to (Mahmud, 2017), character education is not just teaching the difference between right and wrong, but habituation that is carried out continuously. At the implementation stage, it must be developed through learning experiences which are often known as differences to form culture. Another opinion, according to Budimansyah, is that students are citizens who need to be formed into citizens who know their rights and obligations. Thus, they are often referred to as

hypothetical citizens, meaning citizens who need to be taught to become mature citizens and have character (Pradana, 2016).

The teacher is the key to success in developing the character of students in learning. According to (Busyaeri & Muharom, 2016), teachers in the learning process can be likened to traders, so in this concept, the teacher must find ways to make students interested in the material they teach. The character development of students in learning requires a long process. In line with Lickona (1992), the emphasis on the implementation of character education has 3 components, namely "1) *moral knowing*, 2) *moral feeling*, 3) *moral action*." The right method in character habituation is 1) exemplary, 2) habituation, 3) enforcing discipline, and 4) providing motivation (Mushfi et al., 2019).

Character development is an effort to develop the identity of the Indonesian nation. According to (Samani, 2020), the development of student character is simply defined as a positive thing that is carried out by the teacher in learning so that it has an influence in the form of character on the students themselves. According to the National Education System Law No. 20 of 2003, it is emphasized that the importance of character development through learning and educational programs aims to form students with noble character, as well as in the context of the intellectual life of the nation (Pradana, 2016).

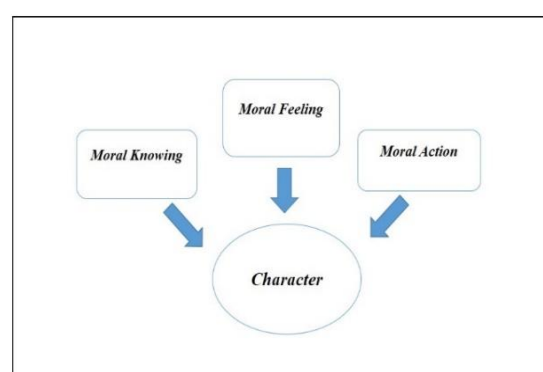


Figure 2 Components of character education
Source: (Lickona, 2012)

Below are the percentage criteria for the results of questionnaires and student character observations, as follows:

Table 1 Student Character Criteria

| No. | Percentage Range | Observation and Questionnaire Assessment Category |
|-----|------------------|---|
| 1. | 0% P < 20% | Very Low |
| 2. | 20% P < 40% | Low |
| 3. | 40% P < 60% | Medium |
| 4. | 60% P < 80% | High |
| 5. | 80% P < 100% | Very High |

Source: Romika & Amalia's adaptation in (Syafi'ah, 2021)

Independent

An independent character is a character who believes in his own abilities. Independent character makes students confident and not dependent on others (Wahono, 2019). In line with (Mahmud, 2017), states that independence is an attitude and behavior that completes all tasks and problems that are carried out alone and do not depend on others. The characteristics of independent characters include "work ethic (hard work), resilient, fighting power, professional, creative, courageous, and being a lifelong learner" (Kemdikbud, 2019).

The independence of students is not only perceived as being able to make their own decisions but must be accompanied by an attitude of responsibility. Agree with (Rahmayani, 2019), the independent character is not an attitude that separates oneself from others, but students are able to take responsibility for themselves and can carry out activities such as reading learning materials themselves.

Character formation cannot be formed instantly and easily, but rather a behavioral process that is carried out repeatedly and grows into a habit (Mahmud, 2017). Therefore, strengthening character education has 2 factors that influence it, namely internal and external factors. Internal factors are factors that are formed from within each individual in the form of (awareness, willingness, and motivation), while external factors are (family environment, school, and community). The most important character formation is starting from the family environment, while the school environment plays a role in strengthening these characters

(Lickona, 2012).

Through TPACK-based learning and character, the teacher carries out learning by conducting learning with a content/content approach. In KD 3.2 evaluating the practice of protecting and enforcing the law in ensuring justice and peace, the teacher gives an example of a case by rotating questions about the case. This process is carried out in order to train the courage and confidence of students to express their opinions and find solutions to these problems.

Based on the indicators and questions given regarding the independent character, at the 4th-week meeting, the students were given a questionnaire about the character. Based on the results of the questionnaire, the percentage reached 87.7%, which can be categorized as very high and has become a habit. According to the Ministry of Education and Culture (2019), habituation occurs due to a good planning process carried out by teachers in integrating characters in learning, both from the stages of determining approaches, strategies, models, methods, to the evaluation stage (Mahmud, 2017).

Table 2 Independent

| No | Character | Indicators | Statements |
|----|-------------|--------------|---|
| 1. | Independent | Have courage | I am able to provide solutions related to problems regarding learning materials independently. (positive) |
| | | Hard work | Through TPACK-based teaching materials, it is easier for me to communicate and carry out new activities independently. (positive) |
| | | Professional | If given a mandate then I will be responsible. (positive) |
| | | Confident | Always believe in |

my own abilities.

If I am given a school assignment, then I entrust it to a friend. (negative)

Source: Modified from, (Kemendikbud, 2019).

Based on the independent character indicators above at each meeting, the teacher implements learning and media implementation based on TPACK by using websites, learning e-books, and interactive learning videos. The media components are included in technological knowledge. During the learning process, the teacher carries out learning by integrating content that is in accordance with material 3.2, namely protection and law enforcement materials. In the content knowledge component, the teacher asks students to observe learning videos relating to cases of law violations. When observing this learning video, the teacher observes students on indicators of being able to carry out new activities and indicators of responsibility.

If the process of observing the learning video has been completed, the teacher will apply the last TPACK component, namely pedagogical knowledge. The application of the PK component in the actualization of independent character, the teacher chooses to play games with students so that they are not bored with the core activities. In addition, the teacher trains students' self-confidence by way of after the game is over, if students are not able to guess the game, they will be given questions related to the material. The learning process is carried out very well so that by giving games and questions the teacher also raises indicators of a sense of responsibility for students in learning.

In the next activity, the teacher displays a video of concrete examples of obeying the law and violating the law. Through these case videos, the teacher asks students to analyze and express their opinions about the videos they observe. In this activity, the teacher trains students' courage and hard work in observing videos. The seriousness and hard work of students can be seen by anyone who dares to express their opinion and make decisions on the results of their analysis by providing solutions to cases given by the teacher.

The three main components of TPACK are implemented by teachers by having interrelationships so as to form a good system in carrying out learning. In the middle of learning, the teacher always raises the spirit of the students by shouting. This pedagogic component is highly considered by the teacher in carrying out learning, in addition to carrying out the provision of material the teacher also motivates students to have courage and confidence in learning. In line with (Wahyu BS, 2018), states that pedagogic abilities are carried out in order to create student learning activities. The actions taken can be in the form of advising activities, providing relevant examples, and being able to manage to learn well.

The teacher also makes habituation at every meeting the teacher always reminds students to first read the material on the website, listen to learning videos, and read e-books that are integrated on the website. which will be presented at the next meeting. Some of these habits are carried out to train students' persistence and confidence in expressing opinions, as well as being responsible for carrying out the duties of the teacher. In line with (Suhaida & Azwar, 2018), independent character development can be done by planting concepts and requires planting an understanding of characters that can be emulated in the learning process.

Table 3 Observation of independent character meeting 1

| No | Descriptor | Percentage (%) (Pre) | Percentage (%) (Post) |
|---------|--|----------------------|-----------------------|
| 1. | Able to make own decisions | 25.8 | 25.8 |
| 2. | Able to carry out new roles and activities | 38.7 | 38.7 |
| 3. | Have responsibility | 25.8 | 77,4 |
| 4. | Have self-confidence | 25.8 | 25.8 |
| Average | | 29 | 41.9 |

Source: Primary data, processed in 2021

Based on tables 3 and 4 above, at meeting 1 on 27 August 2021, each descriptor only obtained an average the average percentage is 29% before and 41.9% after the implementation of TPACK-based learning. These data indicate that the independent character of students is still not visible. However, there is a significant comparison between before and after the implementation of TPACK-based learning.

Table 4 Observation of independent character meeting 2

| No | Descriptor | Percentage (%) (Pre) | Percentage (%) (Post) |
|------|--|----------------------|-----------------------|
| 1. | Able to make own decisions | 32.25 | 38.7 |
| 2. | Able to carry out new roles and activities | 32.25 | 38.7 |
| 4. | Have self-confidence | 32.25 | 48 |
| Mean | | 32.25 | 51.5 |

Source: Primary data, processed in 2021

Table 5 Observation of independent character meeting 3

| No | Descriptor | Percentage (%) (Pre) | Percentage (%) (Post) |
|---------|--|----------------------|-----------------------|
| 1. | Able to make own decisions | 38.70 | 48 |
| 2. | Able to carry out new roles and activities | 38.70 | 64.5 |
| 3. | Have responsibility | 38.70 | 80.6 |
| 4. | Have self-confidence | 32.25 | 48 |
| Average | | 37 | 60 |

Source: Primary data, processed in 2021

Table 6 Observation of independent character meeting 4

| No | Descriptor | Percentage (%) (Pre) | Percentage (%) (Post) |
|----|----------------------------|----------------------|-----------------------|
| 1. | Able to make own decisions | 48.38 | 96.7 |

| | | | |
|---------|--|-------|------|
| 2. | Able to carry out new roles and activities | 64.5 | 96.7 |
| 3. | Have responsibility | 48.38 | 77,4 |
| 4. | Have self-confidence | 54.8 | 64.5 |
| Average | | 54 | 83.8 |

Source: Primary data, processed in 2021

Based on table 4-10 at meeting 2-4, an increase in the results of the independent character of students was obtained. Although at the 2nd meeting the character of the students was still categorized as low, in the descriptor the responsibility of the students increased significantly. This is because the teacher always fosters students to be responsible for themselves as individuals in learning. In addition, the teacher also gives encouragement when they are not concentrated in learning by doing a test of their enthusiasm. In line with (Pous, 2020), in improving independent character in learning by motivating, educating, and guiding students through positive behavior such as for example.

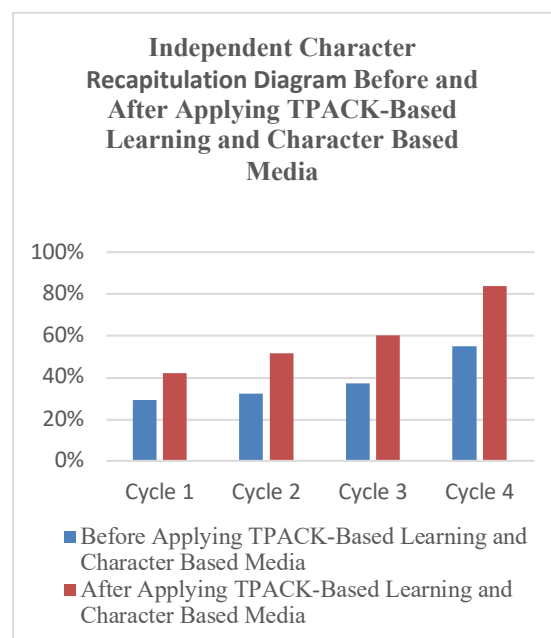


Figure 3 Recapitulation of Observation Results of increasing independent character after the application of TPACK-based learning and character-based learning media

The indicators of independent character observed by the teacher were still relatively low at the initial learning meeting. Students are still not used to and dare to express opinions and are active in learning. However, the teacher evaluated the activities at the first meeting, by adding spin games, and random names in learning by utilizing technology and providing motivation and enthusiasm for students. This is done to integrate the components of technological knowledge, pedagogical knowledge, and content knowledge in learning. Thus, the independent character continues to increase at meeting 2-4 with the percentages of 51.5%, 60%, and 83.8%. Independent character is increasing until the fourth meeting as shown in the graph above.

The Integrity Character

The character of integrity according to the Ministry of Education and Culture (2017:6), "integrity has the characteristics of people who are trusted in their work, actions, and hold fast to human values. According to Ki Hadjar Dewantara (1962), character development can be done with "heart or ethics; thinking or literacy; if the initiative or aesthetics; and sports or kinesthetics" (Komara, 2018). The character of integrity includes an attitude of responsibility as a citizen, actively involved in social life, and consistency in actions and words based on the truth (Asmani, 2011). The value of integrity is all good deeds that are a character of an individual. Good character is closely related to morals, ethics, and morals. According to (Mahmud, 2017), the character of integrity is a moral value about honesty, discipline, and responsibility that are mutually sustainable in forming a person of character.

Table 7 Character Integrity Indicators

| No | Character | Indicator | Statements |
|----|-----------|-----------|---|
| 1. | Integrity | Honesty | After studying law protection and enforcement materials, I am honest in daily life. |

| | |
|------------------|--|
| | After studying law protection and enforcement materials, I avoid cheating, plagiarism, and breaking the rules. |
| Responsibilities | If I am in a school environment, I will be orderly and obey the school rules. |
| | Carry out orders given by the teacher if asked. |
| Exemplary | Present in learning on time. |

Source: Modified from, (Kemdikbud, 2019).

Based on the results of data collection with the integrity character questionnaire, the percentage reached 83.5%, which can be categorized as habitual and categorized as very high according to the criteria. In this study, the indicators of integrity character are (Honest, responsibility, and discipline). Honesty is a behavior that can be trusted both in words and inactions. Being responsible is the attitude and behavior of carrying out their duties and obligations as students in the classroom. Finally, the discipline indicator is an indicator that is no less important than the integrity sub-indicator. The character of discipline is an indication of an attitude that is obedient to the applicable laws and regulations. Compliance with the law is shown by the successful collection of student assignments on time. In addition, the teacher also gives project assignments in the form of observing daily habits towards legal compliance that they do or meet on a daily basis. In the given task, the teacher makes a statement in the e-book, that the observations are carried out honestly, and are collected on time.

In the discipline indicator, the teacher integrates and relates it to the material on law enforcement. The teacher gives several examples of lawless behavior in the learning videos on the website. After that, students were asked to argue about their observations about the learning video. The teacher explains and conducts questions and answers about

these behaviors and emphasizes that students must avoid negative behaviors. The teacher also motivates students to keep implementing school rules in online learning. Thus, content knowledge can be fulfilled even though learning is carried out online.

The tables of the results of the recapitulation of observations below are the results of observations on the character of integrity during 4 meetings. Observations were carried out in 2 stages, namely before implementing and after implementing TPACK-based learning. Observations were made using the indicators and descriptors described in the table above. So that the data is obtained is as follows.

Table 8 Observation of integrity character meeting 1

| No | Descriptor | Percentage (%) (Pre) | Percentage (%) (Post) |
|---------|--|----------------------|-----------------------|
| 1. | Honest in collecting assignments | - | |
| 2. | Responsible for tasks given by teacher | 25.8 | 77.4 |
| 3. | Arrive on time | 64.5 | 70 |
| 4. | Dressed | 64.5 | 77.4 |
| Average | | 51.6 | 74.9 |

Source: primary data is processed in 2021

Table 9 Observation of integrity characters meeting 2

| No | Descriptor | Percentage (%) (Pre) | Percentage (%) (Post) |
|----|--|----------------------|-----------------------|
| 1. | Honest in collecting assignments | - | - |
| 2. | Responsible for assignments given by the teacher | 32.25 | 80.6 |
| 3. | Arrive on | 64.5 | 77,4 |

| time | | | |
|---------|--------------|-------|-----|
| 4. | Dress neatly | 64.5 | 100 |
| Average | | 53.75 | 86 |

Source: Primary data, processed in 2021

Based on the results of observations of integrity characters in tables 13 and 15, excellent results were obtained from the integrity character of students with indicators of honesty, responsibility, and discipline. The results showed that at meeting 1, the character of the integrity of the students had reached a good percentage of 74.9% with a high category. The percentage increased significantly at the 2nd meeting by reaching a percentage of 86% in the very high category. Integrity character development is carried out through habituation, example, and motivation. Through TPACK-based learning that applies technology, it is given to students through problem-based project assignments. The citizenship project is given to see the level of honesty, responsibility, and discipline of students. The assignment is accompanied by collecting evidence, that it is true that they carry out legal compliance and obedience in their daily environment.

During 4 meetings, in training the integrity of students in discipline indicators, students are accustomed to coming 10 minutes before the zero hours to joint study was held. The teacher as an example of getting used to and forming character comes early in the classroom so that indirectly exemplifies the discipline of students. Through technology-based learning media in the form of a learning web, a student attendance list feature is provided. The presence of students is assessed based on the discipline they attend in online classes. In addition, in the citizenship project task, in this case, it is included in the content knowledge (CK) component, an integrated command in the form of an indicator of honesty in collecting assignments is integrated.

At the end of the meeting, students collect their observations through habituation of discipline and obedience to the law that they do and meet in the surrounding environment. Students are very enthusiastic about working on the project very honestly. This honesty is proven by each student telling that there is some evidence that they have not found in the

field, so they take it from internet sources. This proves their honesty, responsibility, and discipline in carrying out their duties.

Table 10 Observation of integrity character meeting 3

| No | Descriptor | Percentage (%) (Pre) | Percentage (%) (Post) |
|------|--|----------------------|-----------------------|
| 1. | Honest in collecting assignments | - | - |
| 2. | Responsible for assignments given by the teacher | 38.70 | 80.6 |
| 3. | Arrive on time | 80.6 | 77,4 |
| 4. | Dress neatly | 80.6 | 100 |
| Mean | | 66.63 | 86 |

Source: Primary data, processed in 2021.

Based on the results of observations at meeting 3, positive results were obtained regarding the integrity character of students. At this 3rd meeting, the percentage produced is the same as the 2nd meeting by obtaining a percentage that is categorized as very high with a percentage of 86%. There is a significant difference between before the implementation of TPACK-based learning and after the implementation of TPACK-based learning. At meeting 2, it was very visible that an increase occurred between before and after. The results show a percentage of 66.3% in the high category, while after the application, the results are 86% which is interpreted as very high.

Table 11 Observation of integrity character meeting 4

| No | Descriptor | Percentage (%) (Pre) | Percentage (%) (Post) |
|----|--|----------------------|-----------------------|
| 1. | Honest in collecting assignments | 38.70 | 100 |
| 2. | Responsible for the tasks given by the teacher | 48.38 | 77.4 |
| 3. | Arrive on time | 80, 6 | 100 |

| No | Descriptor | Percentage (%) (Pre) | Percentage (%) (Post) |
|---------|--------------|----------------------|-----------------------|
| 4. | Dress neatly | 80.6 | 100 |
| Average | | 62 | 94 |

Source: Primary data, processed in 2021

At the end of the meeting, students collect their observations through habituation of discipline and obedience to the law that they do and meet in the surrounding environment. The students were very enthusiastic in working on the project, and some of them were very honest in telling students that there was some evidence that they had not found in the field, so they took it from internet sources. This proves their honesty, responsibility, and discipline in carrying out their duties.

This research is strengthened by this theory explaining that when individuals have new information in this case in the cognitive realm, it will affect changes in attitudes from within the individual. This means that this theory states that the relationship between attitude changes in the affective domain can be influenced by the cognitive component (Dharma, 2013). In line with the theory of Zimbardo and Lieppe above, Rosenberg 1960 in Nursabrina (2019) also reveals the theory of the relationship between cognitive-affective consistency. In this theory, Rosenberg illustrates that between knowledge and attitude competence will go hand in hand (stable). Based on the table of observations on the 3 indicators above, the following tables and graphs are obtained.

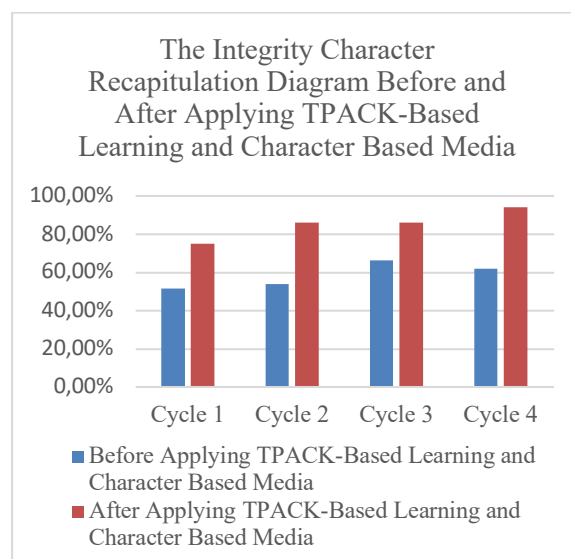


Figure 4 Observation results of increasing character integrity

It can be concluded that all aspects taught by teachers in terms of habituation, example, motivation, and giving strict rules are strong efforts in developing the character of students. Through the character, education can overcome internal and external factors that can hinder the strengthening of the character itself. According to Harmin (Ramdani & Marzuki, 2019), example and habituation can strengthen the understanding and character of students, so as to produce a comprehensive and optimally integrated understanding. This is evidenced by the observational data at weeks 1-4 which is very clear. In week 1, the results of the observation of the integrity characteristics of the students obtained a percentage of 74.9%, meetings 2-4 increased to 86%, 86%, and 94% which can be categorized as very high and has become a habit (habit).

Conclusion

Based on the results and discussion, it can be concluded that through TPACK-based learning and character-based learning media, the values of independent character and integrity can be actualized significantly, including through the attitude of the teacher as a role model, various activities guided by the teacher, including the provision of activities and independent assignments, as well as examples and habituation, this can be seen from the significant increase in character at each meeting. The development of independent character and integrity increases from the implementation of weeks 1-4. This is based on the principle theory of character development through 3 components, namely "moral knowing, moral feeling, and moral action". As for the implementation, it is done by habituation, for example, giving motivation, and enforcing discipline. Through learning activities, the teacher as a role model directly empowers characters which will later become civilizing and habits in students.

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