

# A Developmental Study of Junior High School Mathematics Instructional Media Guided from Humanity-Value of Learning Model (MPNK) to Prevent Juvenile Delinquency

I Nyoman Murdiana

Rita Lefrida

Universitas Tadulako

*nyomanmur10@yahoo.co.id*

**Abstract:** The Research and Development study aimed to develop an instructional media for math lesson using valid, practical, and effective humanity-value teaching model to prevent juvenile delinquency. To achieve the objective, the prototypical study was conducted using 3 phase development, namely (1) early assessment phase or front-end analysis, (2) the development phase consisting of expert validation and tryout I, and (3) the evaluation phase through tryout II using a quasi experiment design with anacova data analysis. The result from the first year development (2015) was the instructional media for junior high school using a valid humanity-value teaching model to prevent various kinds of juvenile delinquency. The products developed from the current research were in the form of lesson plan, teacher's book, student book, and student worksheets. The products were in the form of draft of the instructional set which was valid.

**Keywords:** instructional media, junior high school, mathematics, MPNK model

**Abstrak:** Penelitian ini merupakan penelitian pengembangan untuk menghasilkan perangkat pembelajaran matematika SMP berpandu Model Pembelajaran Nilai Kemanusiaan (MPNK), yang valid, praktis, dan efektif guna mencegah kenakalan remaja. Untuk mencapai tujuan tersebut, maka jenis penelitian yang digunakan adalah *prototypical studies* melalui tiga tahap pengembangan. Tiga tahap tersebut yakni: (1) fase hulu hilir, (2) fase pengembangan melalui kegiatan validasi oleh pakar dan kegiatan uji coba I; (3) fase penilaian melalui kegiatan uji coba II dengan rancangan "*Quasi-Experiment*" dan datanya dianalisis dengan Anacova. Hasil yang telah diperoleh untuk pengembangan tahun I (2015) adalah produk perangkat pembelajaran matematika SMP berpandu MPNK, yang valid dalam rangka mencegah berbagai bentuk kenakalan remaja. Produk yang telah diperoleh dari hasil penelitian ini berupa Rencana Pelaksanaan Pembelajaran (RPP), Buku Guru, Buku Siswa, dan Lembar Kerja Siswa. Produk tersebut berupa Draft Perangkat Pembelajaran yang telah memenuhi kualitas valid.

**Kata kunci:** matematika, model MPNK, perangkat pembelajaran, SMP

In the stages of human development, junior high school students are categorized into the adolescence category which is the transition between childhood into adulthood, when sexual maturity occurs between the ages of 12 and 20 (Soetjiningsih, 2004). Adolescence is a time when humans are in search of identity, want to know who they really are. In the process of self-discovery, sometimes the teenagers use deviant ways of the rules and norms that apply in society. This deviation is commonly called juvenile delinquency.

One form of juvenile delinquency is brawl. Brawl is the phenomenon of fighting among students.

Today, the phenomenon of the brawl is widespread, as reported by Merdeka.Com Friday, March 21, 2014 as follows:

Police of Pasar Minggu, South Jakarta, secured dozens of students from SMAN 38 Jakarta and SMAN 55 Jakarta. They were arrested for fighting in front of Naval Complex, Poltangan, South Jakarta, Friday night (21/3).

Generally, the brawl between students in 2013 has increased. Media Okezone. Com noted, "throughout 2013, the National Commission for Child Protection (Komnas PA) recorded 255 cases of brawl that occurred. The case of student brawl increased compared to last year that is 147 cases.

The 255 cases were conducted by junior high school and senior high school. From the case, it was found out that 20 children died, the rest were severely and lightly injured.

There are many forms of juvenile delinquency that tend to disturb public order, such as logging, motorcycle gangs, drugs, alcohol, and even prostitution. If juvenile delinquency is not addressed seriously, it will disrupt public order and may hamper the economic activity of a region, because the actions of these students have led to a form of crime and anxiety to the public.

To prevent juvenile delinquency, the educational institution should improve the learning process. The fact shows that the practice of learning tends to prioritize the achievement of the cognitive domain, whereas the affective domain (the attitudes and characters) does not get much attention. As a result, there is a developmental imbalance of students, where the cognitive aspect develops rapidly while affective is left behind. The practice of learning so far is only capable of generating a smart generation, but failed in shaping a noble character.

If the practice of learning is not immediately improved, then the goal of national education which generating a smart generation with noble character will never be achieved. One effort that can be done is to integrate the value of humanity into every subject (except Religion and Civics), by applying MPNK.

Mathematics is one of the strategic subjects to integrate human values, because math lessons has more allocation time than other subjects. Integrating human values into mathematics lessons, will balance the intellectual development, spiritual (emotional and emotional development) as well as affective and creativity development. Thus, there will be a balance of development within the student that can restrained emotional turmoil in adolescence, thus it can prevent various acts of juvenile delinquency.

The purpose of this study in the first year was to develop instructional media that guided by MPNK. The instructional media developed in this study include lesson plans (RPP), teacher books, student books and student worksheets (LKS). The results of this study are beneficial to Kemendikbud as a preventive effort to prevent various forms of juvenile delinquency.

In the Law of the Republic of Indonesia Number 20 Year 2003 on the National Education System Article 3 mentioned that the National Education function to develops capabilities and shaping the character and civilization of dignified nation in

order to educate the life of the nation, aims for the development of potential learners in order to become a human who believes and be cautious to God Almighty, have a noble character, healthy, knowledgeable, capable, creative, independent, and become citizens of democratic and responsible. If the function and purpose of the education are examined, there are five of the eight students' potency which are associated with the character. This means that the character building of Indonesia becomes the main object in the implementation of education.

However, the implementation of education has experienced a very worrying shift and disorientation, where the practice of learning is more concerned with achieving the cognitive domain while the character domain tends to be neglected. The result is that the degradation of human values among the younger generation, the lack of manners, ethics, and creativity of the nation's children has become a common phenomenon today. The weak character makes it easier for them to misbehave who tend to bother the community without feeling guilty, shy, embarrassed and even with pride in their involvement in brawls, drugs, and various forms of criminality.

Therefore, the character building become very important because the degradation of moral is very apprehensive, especially among the younger generation. The importance of character building has been expressed by Yudoyono (In Kemendikbud, 2010) as follows:

Character building is very important. We want to build Indonesian people who have good character and good behavior. Our nation also wants to have a superior and noble civilization. Such civilization can be achieved if our society is also a good society. And, this dream society can be realized when Indonesian people are morally and well-mannered people, good moral and ethical man, as well as people who speaks and behaves well.

The importance of strengthening character building in the future generations has also been reminded by Lickona (1991) that there are ten signs of the times to watch out which mark the destruction of a nation. The signs are, (1) increased violence among adolescents, (2) the use of language and worsening words, (3) strong peer group influence in violence, (4) increased self-destructive behavior (5) lack of respect for parents and teachers, (8) low sense of individual responsibility, (9) defuses dishonesty, and (10) the lack of honesty, mutual suspicion and hatred among others.

If character building implemented thoroughly, it will strengthen the school which is more conducive

for the individual growth. School is an institution that has an important task in the formation of student character. Building character of students is the process of carving a person's soul to be unique, interesting, and different from other individuals.

According to Lickona, (1991), there are three stages of character building: (1) moral knowing; understand the children well about the meaning of goodness, (2) moral feeling; building a love for good behavior in children that will be a source of energy for children in behaving well, and (3) moral action; how to pursue moral knowledge into action. This morale action is an outcome of the two previous stages and must be done repeatedly to be moral behavior.

According to Ayudhya (1999), human values include right action, peace, truth, love, and non-violence. The integration of human values in learning is a systematic effort that deliberately includes the value of the characters in the design of learning and seeks to emerge and develop during the learning process. The integration of character values into learning should be explicitly seen in the formulation

of indicators and learning objectives. The designed learning activities reflect the content of the value of the characters that want to be developed.

MPNK is a learning model that integrates human values into learning so that learning will not only achieves the goals of cognitive aspect but also affective aspect. This model is the result of development research at the National Strategic Research Scheme (Stranas) for Fiscal Year 2012 s / d 2013 conducted by Murdiana, which has met the valid, practical, and effective quality so that it can be used in all subjects that integrate humanitarian values.

MPNK consists of 5 components. The five composers are syntax, social systems, reaction principles, support systems, as well as the impact of instructional and companion impact. Syntax is a sequence of common learning activities also called phases. The syntax of learning models of human values consists of three stages: (1) Phase I: Preamble, (2) Phase II: Core Activity, (3) Conclusion. The teacher and students' activities for each phase can be seen in Table 1.

**Table 1. Teachers and students' activities in each step of MPNK Model**

Teachers' Activities	Students' Activities
<b>Step I : Opening activities (10 Minutes)</b>	
1. Presenting the indicator of basic competence.	1. Paying attention to the indicator in the students' book.
2. Giving motivation to learn.	2. Paying attention to the motivation.
3. Explaining the students' book that will be used.	3. Paying attention to the explanation of students' book.
4. Reminding the supporting concept of the learning	4. Paying attention to the explanation of concept.
<b>Step II : Main activities (50 Menit)</b>	
1. Asking the students to note the material explained in the students' book	1. Paying attention to the material in the students' book
2. Presenting the concept, through lecture or demonstration	2. Paying attention to the concept explained by the teacher
3. Dividing the students into several group	3. Making a group
4. Giving technical guide about the group	4. Paying attention to the technical guide given by the teacher
5. Guiding the students about the group activities	5. Paying attention to the teacher while working on task
6. Asking the group to present the material	6. Presenting the task
7. Asking the group to give feedback to the group who present the material	7. Giving feedback to the other group
8. Checking and giving feedback about the task	8. Paying attention to the feedback given by other students
9. Guiding the students to conclude the concept.	9. Concluding the concept explained.
<b>Step III: Closing Activities (10 Menit)</b>	
1. Sumarizing the result of discussion among the group	1. Paying attention to the conclusion of the discussion result.
2. Giving homework from the students' book.	2. Taking the homework given by the teacher

The social system is the situation or atmosphere and norms that apply in a model of learning. The social system in MPNK is the role of teachers and the involvement of students in the learning process according to the rules that describe the relationship between teachers and students, as well as the relationship between students and students.

The norms recommended in the MPNK are that students are free to express their opinions and propose ideas. These rules train students for democracy in learning. Thus, students will learn to respect the opinions of others and appreciate the differences that exist. In this way the character of the students is slowly being formed in a better direction.

Principles of reaction relate to how teachers perceive and treat students, as well as respond to stimuli that come from students such as questions, answers, responses, or other activities. More generally, Joice & Weil (1992) argue that the principle of reaction is a guide for teachers about how students value teachers, and how teachers respond to what students do

Based on the general sense of the principle reaction above, the teacher's role in this learning model is: (a) to provide learning resources oriented to the improvement of human values; (b) pass on information about how to understand human values; (c) guide students in applying their knowledge to understand human values; (d) respond to student questions as best as possible so that teachers can be modeled in developing humanitarian values (minds); and (e) reward students who are critical, polite, well behaved and successful in accomplishing the tasks assigned.

In relation to the teacher's role as mentioned above, teacher behaviors expected in this learning model are as follows:

- a. Creating a conducive atmosphere to learn and motivate students
- b. Providing and managing relevant learning resources that can support the fluency of the learning process.
- c. Conveying knowledge of humanity values in an integrated manner and strategies in performing the tasks assigned.
- d. Guiding students in completing tasks given in teaching materials.
- e. Respecting all student activities that support the learning process (positive reinforcement) and direct student activities that hinder the learning process (negative reinforcement).

The supporting system of a learning model is

instructional media that support the implementation of the model. Supporting systems of this learning model include: (a) Lesson plan (RPP); (b) learning materials (Student Books); (c) Master Handbook; (d) instructional media such as whiteboards, OHPs, and others.

The use of MPNK is expected to generate the impact of instructional and companion impact. The instructional impacts and companion impacts are as follows:

- a. The instructional impact in MPNK is the achievement of objectives in the cognitive domain. The purpose of this lesson has usually been formulated clearly in the RPP. The learning objectives formulated to achieve instructional impacts are tailored to the learning materials.
- b. The accompaniment impact of the MPNK is the achievement of learning objectives on affective aspects, in particular, the development of human values in the students. Impact accompanist of this MPNK Model is the growth of right attitude in the student, peace, love, truth, and non-violence.

In relation to the development of instructional media, the development model proposed by Plomp (1999) consists of five stages, as follows:

1. Initial Assessment Phase or Upper-level analysis phase (front-end analysis)  
This stage is an analysis of needs or problems. This stage includes: (a) identifying information, (b) analyzing information, (c) defining or limiting problems, (d) planning for follow-up activities.
2. Design Stage  
Activities at this stage aim to design problem solving that has been identified in the first stage. The design is made up of a systematic process of dividing the big problem into small problems with their respective designs, then eventually all forms of solutions are collected and re-connected into a complete problem-solving structure.
3. Realization or Construction Stage  
This stage is made a prototype, the main design based on detailed design. In the educational context, the second and third stages above are called the production stage or prototyping phase.
4. Test Phase, Evaluation, and Revision  
This stage aims to consider the quality of the design to be developed. Also make decisions through careful consideration. Evaluation includes collecting, processing, and analyzing information systematically. This is done to assess the quality of the selected solution. Further revised then back to the designing activities and

so on. This cycle is the feedback cycle and stop after obtaining the desired solution. This stage is often called the assessment phase (assessment phase).

#### 5. Implementation Phase

In the development of instructional media, several criteria are needed to determine whether the development is in accordance with expectations or not. According to Nieveen (2000) a material is said to be qualified if it meets the following aspects: 1) validity, 2) practicality, 3) effectiveness. Nieveen uses these criteria to develop the curriculum. The aspect of validity according to Nieveen is associated with two things: 1) whether the developed device is based on a strong theoretical rationale, 2) whether there is internal consistency. While the practical aspects according to Nieveen (2000) are met if: 1) the experts and practitioners state that the model developed is applicable, and 2) the observation of the implementation of learning indicates a good minimum category.

Indicators for the three aspects in the development of instructional media of human values in this study are as follows:

1. The indicator used to state that instructional media developed are said to be valid is the validity of the construct and the validity of the content. The construct validity indicates that the tools developed are based on: (1) strong theoretical rationale; (2) the construction of the language used in accordance with the level of cognitive, and social-emotional development of students; and (3) well-structured material presentation patterns (presented hierarchically and systematically). While the content validity indicates: (1) internal consistency between components of pursue device ie RPP, Master Book, Student Book and LKS; (2) the material and examples contained in the lesson plan, the textbook, the student book, and the worksheet are materials that are appropriate to the curriculum content, the level of intellectual development of the students, and on each material or example it has integrated relevant humanitarian values.
2. Instructional media are said to be practical if they meet the three predefined indicators, namely: (1) the level of teacher activity in managing the learning entry in the category of good or very good, (2) learner activities included in the category active or very active, (3) response learners are included in a positive or very

positive category.

3. Learning devices are said to be effective if there is a significant influence on the application of learning tools that guided SMP SMP MPNK on student learning outcomes.

## METHOD

### Types of research

This research is a developmental research. There are two types of the developmental research namely formative research and reconstruction research (Akker, 1999; Richey and Nelson, 1996; and Plomp, 1999). Formative research is also called prototypical studies, which are the design, development, evaluation of products, and analyze the conditions that facilitate the use of these products. While the reconstruction research is a meta research (after the development process) with a focus on generalizing and specifying design principles. In accordance with the purpose of this study, this research is a research on the development of prototypical studies type.

The developmental model of instructional media in relation to the development of instructional media, the developmental model proposed by Plomp (1999), which consists of five stages, is as follows:

1. Initial Assessment Phase or Upper-level analysis phase (front-end analysis). This stage is an analysis of needs or problems. This stage includes: (a) identifying information, (b) analyzing information, (c) defining or limiting problems, (d) planning for follow-up activities.
2. Design Stage. Activities at this stage aim to design the problem solving that has been identified in the first stage. The design is made up of a systematic process of dividing the big problem into small problems with their respective designs, then eventually all forms of solutions are collected and re-connected into a complete problem-solving structure.
3. Realization or Construction Stag. This stage is made a prototype, the main design based on detailed design. In the educational context, the second and third stages above are called the production stage or prototyping phase.
4. Test Phase, Evaluation, and Revision. This stage aims to consider the quality of the developed plan. Also make decisions through careful consideration. Evaluation includes the process of collecting, processing, and analyzing information systematically. This is done to assess the quality of the selected solution. Further

revised then back to the designing activities and so on. This cycle is the feedback cycle and stop after obtaining the desired solution. This stage is often called the assessment phase.

5. Implementation Phase. At this stage the solution has been obtained after the evaluation. Solutions are considered to meet the problems faced. Hence the selected solution can be implemented in real situations.

In the development of instructional media, several criteria are needed to determine whether the development is in accordance with expectations or not. According to Nieveen (2000) a material is said to be qualified if it meets aspects of quality, among others: 1) validity, 2) practicality, 3) effectiveness. Nieveen uses these criteria to develop the curriculum. The aspect of validity according to Nieveen is associated with two things: 1) whether the developed device is based on a strong theoretical rationale, 2) whether there is internal consistency. While the practical aspects according to Nieveen (1999) are met if: 1) the experts and practitioners state that the model developed is applicable and 2) the observation of the implementation of learning indicates a good minimum category.

Indicators for the three aspects in the development of instructional media in this study are, as follow

The instructional media is said to be valid when it has the validity of the construct and the validity of the content. The construct validity indicates that the developed device is based on (1) strong theoretical rationale, (2) the construction of the language used in accordance with the level of cognitive development, and the students' social-emotional, and (3) the well-structured pattern of material content (presented hierarchically and systematic). While the validity of the content indicates (1) internal consistency between the components of the pursue device ie RPP, Teacher Book, Student Book and Worksheet, (2) the material and examples contained in RPP, Teacher Book, Student Book and Worksheet are materials that correspond to (i) the content of the curriculum, (ii) the level of intellectual development of students. Instructional media is said to be practical if they meet the three predefined indicators, namely: (1) the level of teacher activity in managing the learning into the category of good or very good, (2) the activities of learners included in the category active or very active, (3) the students' respond included in positive or very positive category. Instructional media is said to be effective if the instructional media achieves

the objectives that have been established and there is a significant effect of the application on student learning outcomes.

### **Research design**

In this developmental research, the researcher only follows the first three phases of four phases proposed by Plomp (1999): front-end analysis, prototyping phase, assessment phase and decimation phase. Upper-downstream Analysis Phase is a phase of preparation or context analysis. The prototype development phase is the initial development phase of the learning device that has been obtained in the upstream downstream phase. The assessment phase is intended to determine the effectiveness of learning tools that have been developed. The flowchart of the research stages is as shown in Figure 1.

## **RESULTS AND DISCUSSION**

### **Result**

The results achieved in the first year of two years research planned were as follows:

1. The result of Analysis Stage (Upstream Downstream Analysis).

In this step, the researcher conducted various aspects required in the framework of instructional media development, namely (a) curriculum analysis, (b) human values analysis, (c) student analysis, and (d) learning theories analysis . The results of each activity are as follows.

#### ***The Result of Curriculum Analysis***

Results of Curriculum Analysis Based on the study of Curriculum 2013 (K13) obtained data that (1) the affective domain (attitude and character) became the main goal of K13 curriculum, (2) there is a shift of some teaching materials so that the sequence is more hierarchical and logical, especially for class I junior class material; the set material taught in the 2nd semester was moved to the initial meeting of the semester. This is highly relevant and hierarchical in the process of learning mathematics, where number must start from the set, because numbers are the concepts of cardinality in the set, (3) a classroom-oriented assessment system with a wider domain.

#### ***The Results of Values Analysis***

Value analysis was focused on assessing human values and relevant character values to be integrated into junior high school mathematics

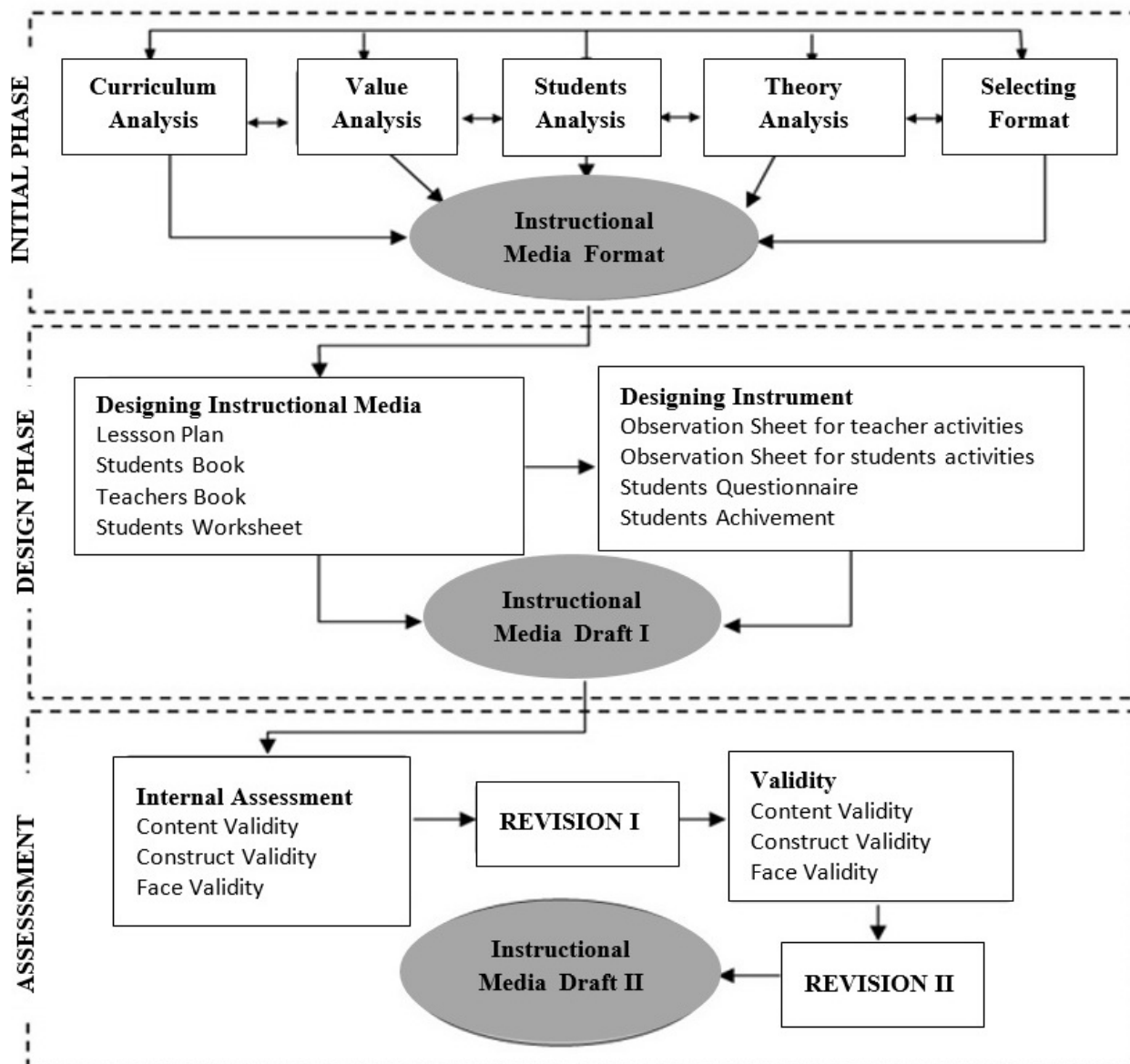


Figure 1. The Step on the Reserach Methodology

learning. The relevant humanitarian values integrated into mathematics learning included: right conduct, peace, truth, love, and non violence. While the values of the characters were relevant included: religious, honest, tolerance, discipline, hard work, creative, independent, democratic curiosity, the spirit of nationality, love the homeland, appreciate achievement, friendly / communicative, love peace, love to read, environment, social care, responsibility.

**The Results of Student Analysis**

In general, the results of student analysis showed

that juveniles (junior high school students) were generally easy to accept and underestimate the consequences, but they could be shaped into good individuals. Generally adolescents had humanitarian values and other good character values, but in some situations they did not appear and even “beaten” by outside influences that tended to be destructive.

**The Result of Learning Theory Analysis**

In accordance with the paradigm of learning, the relevant learning theories used for learning mathematics was cognitivism and constructivism which focused on providing opportunities to

the students to build knowledge actively. The teacher's role acted as a facilitator. As for learning values (values of humanity, character, ethics, etc.) more focused on habituation that preceded in the three stages of (1) knowing about the good, (2) loving kindness desiring the good, and do the good.

### **Format Selection**

Selection of format includes selection of RPP format, Master Book, Student Book and LKS. For RPP format adjusted with RPP format from K13 but its learning using MPNK model.

## 2. Result of design stages

In the design stage, instructional media has been generated. This learning media was based on MPNK model that integrated human values to prevent various forms of juvenile delinquency, which included RPP, teacher book, student book, and LKS. All of these instructional media have been assessed by both the assessments made by the validators.

To get a instructional media that valid, the instructional media needed to be assessed by some validator. Validators involved in this research were one lecturer of mathematics education and two mathematics teachers of SMP. While the aspects of the assessment include: (i) content validity, (ii) face validity, and (iii) construction validity

### a. The Result of Content Validity Assessment

Assessment of content validity included seven questions related to the content of the teaching materials with the objectives of the curriculum, the learning objectives, hierarchical / systematic of the presentation, the students 'learning needs, the students' level of thinking, the examples used and the usefulness of the material to learn the next material.

Based on the assessment of the three validators on the content validity aspect, the Draft I Mathematics Instructional media of SMP which was guided by MPNK Model had good content validity, because the three validators give "yes" to the seven questions mentioned above. In addition, the validator also gave suggestions or comments on the content of the material that needed to be revised, but the advice on the content aspects of the material was not too much as in the comments suggestions on aspects of face validity and

construct validity.

### b. The Result of Face Validity Assessment

There were seven questions asked to assess the face validity aspects. The aspects were related to the book packaging, pictures, tables, and coloring.

The result of the evaluation of the three validators showed that the Draft I Mathematics Learning Tool of SMP which was guided by the MPNK Model has fulfilled the valid quality on the face validity aspect because the three validators gave the answer "yes" to the seven questions above. However, there was still some revisions in the sections that had the comments and suggestions provided by the three validators.

### c. The Result of Construct Validity Assessment

There were five questions for assessing the construct validity aspect (ie language accuracy seen from the EYD, not giving multiple interpretations, not abstract, and so on). The result of the evaluation of the three validators showed that the Draft I Mathematics Learning Tool of SMP which was guided by the MPNK Model has fulfilled the valid quality on the construct validity aspect because the three validators gave the answer "yes" to the five questions above. However, the language aspect had the most commented or suggested from the three validators.

### d. General Assessment Result

In conducting a general assessment of Draft I Instructional media that have been prepared, there were four categories of decisions from the team of validators. Based on the assessment of the three validators that have been set, and after making revisions in accordance with the suggested / commented by the three validators, the Draft I Mathematics Instructional media SMP guided on the MPNK Model has met the valid quality. Furthermore, the revision of Draft I of this mathematics instructional media was called as Draft II Mathematics Instructional media of SMP which was guided by MPNK Model.

## **Discussion**

Integrating human values into learning is very important to be done in order to shape the character of the students into human beings who have cognitive intelligence and noble character. This is in accordance with the function and objectives of the



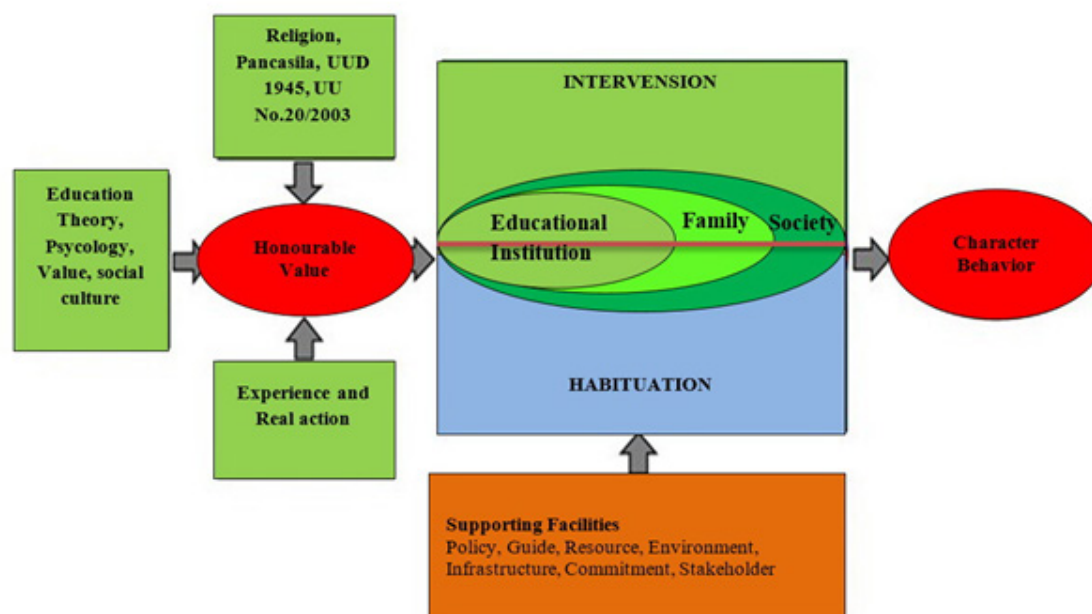


Figure 2. Grand Design Character Building (Kemendiknas, 2010)

National Education which is to develop the ability and form the character and civilization of a dignified nation in order to educate the nation's life, aims for the development of potential learners in order to become a human being who believes and cautious to God Almighty, noble, knowledgeable, capable, creative, independent, and become a democratic and responsible citizen (Depdikbud, 2003).

The effort to develop the nation's character today is very urgent since the various phenomena that lead to destructive, immoral, sacrilegious, disorderly culture, and discipline, drugs, human trafficking, destruction of nature and the environment has reached a dismal level. In this regard, the Government through Kemendikbud (2010) has initiated character education in the context of nation character building, in a design called "Grand Design of Character Education" as shown in Figure 2.

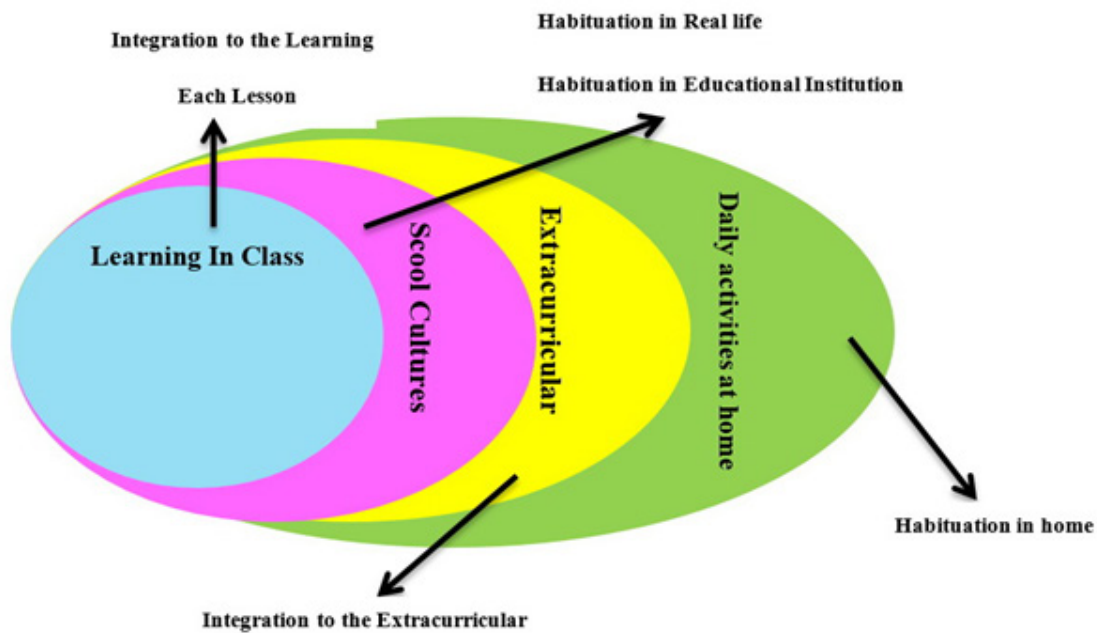
In the building of the character, the educational unit plays a very crucial role, because in the educational unit, the learners are trained to be the appropriate beings we expect. Education can be said to be the spearhead of character education because the students will go through the formal education process. The Government has designed a "Micro Character Education Strategy." Micro-Education Strategy Character is a system of character education in the educational institution. Character education system in this micro strategy consists of four

components, (i) Teaching and Learning Activities, (ii) school culture, (iii) extra-curricular activities and (iv) daily activities at home. As for Micro Character Education Strategy is as shown in Figure 3.

The integration of human values into learning is done through three steps: cultivating, training, and habituating. This is in accordance with the three stages of character value proposed by Thomas Lickona namely: (1) moral knowing, that is to make the students understand about the meaning of goodness; (2) moral feeling, that is to build a love of good behavior in the students ; and (3) moral action, that is how to seek moral knowledge into action. Embedding human values is done by giving a good understanding of the nature of human values that must be the character of human being (Lickona, 1991).

Based on these opinions, there are three steps in developing human values in learning mathematics. First, students are provided with knowledge about human values so that they have sufficient understanding.

The students are trained to actualize the humanitarian values they have in real action at the classroom, at school and at home (micro-environment). The purpose of this stage is that students can do well and correctly the process of actualization, because even though the students have good values (including human values), but



**Figure 3. Mikro Character Building Strategy**

sometimes the actualization in the reality is wrong. Third is the habit, which is a continuous process to realize the human values that have been embedded in students. Human values will be the character of the student if the student has been able to make it happen in various forms of situation and opportunity. The values of human character cannot be arisen by chance, but must be the conscious and personal of the students' behavior.

## CONCLUSION AND SUGGESTIONS

### Conclusion

Based on the description of the results, it can be drawn some conclusions as follows:

1. The assessment on Curriculum 2013 (K13) showed that (1) affective domain become the first goal K13, (2) there is a shift of some teaching materials to be more hierarchical and logical, for the first grader of junior high school materials; the set material taught in semester 2 is moved to the initial meeting of semester 1, (3) the assessment is a classroom-based assessment system with a broader range of areas.
2. The relevant humanitarian values integrated into mathematics learning include: right conduct, peace, truth, love, and non violence.
3. Student analysis shows that adolescents (junior

high school students) are generally easy to accept things from the outside and underestimate the consequences, but they can be shaped into good individuals. Generally adolescents have humanitarian values and other good character values, but in some situations they do not appear and even "beaten" by outside influences that tend to be destructive.

4. Relevant learning theories used for learning mathematics is a theory of learning that is cognitivism and constructivism. The learning values (values of humanity, character, ethics, etc.) are more focused on habituation that preceded into the three stages, namely knowing about the good), loving kindness and do the good.

### Suggestions

Based on the results of this study, the research recommended some of the following suggestion

1. Teachers should always strive to integrate human values into mathematics learning so that students have a strong fortress in warding off the effects that often lead students to various forms of juvenile delinquency.
2. The teachers can apply the MPNK Model in integrating human values and character values to achieve the learning goals of the affective

domain that is constantly demanded today.

3. Teachers should be creative and do not get bored to do habituation for the students to behave in accordance with human values, and always be a model of applying the values of humanity itself.

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