



DEVELOPMENT OF OUTBOUND MINI GAME MODEL BASED ON NATURAL POTENTIAL TO DEVELOP ROUGH MOTOR SKILLS OF CHILDREN AGED 5-6 YEARS

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Abstract

This research is a type of research development (Research and Development) that aims to know the feasibility of outbound mini-game models based on natural potential and know the effectiveness of outbound mini-game models based on natural potential. This development uses addie model which includes 5 steps, namely: Analyze, Design, Development, Implementation, and Evaluation. The subjects of this study were children of group B age 5-6 years RA Nurul Huda Denai Sarang Burung as many as 10 children field trials and as many as 5 children trial small groups. Data collection instruments in the form of validation assessment sheets of design experts, rough motorists, early childhood experts, and teacher response questionnaires in assessing products. The study produced products that met the validation of design experts, rugged motorists, and early childhood experts, with an average percentage rate of 93.0%, which said the category was very valid and worth using. teacher response reached 92.3% with excellent criteria. The results of this study are outbound mini-game models packaged in compact disk. The game model developed is effective in improving the child's rough motor skills. this can be seen from wilcoxon sign-rank difference test with 0.004 result. Signification result $0.004 < 0.05$ which means there is a significant change between the ability of the child before and after treatment.

Keywords: *Outbound Mini Games, Natural Potential*

A. Introduction

Rough motor skills (motoric) will not only grow and develop naturally as children develop, but appropriate direction, guidance and programs are needed to develop motor skills in the right way According to Corbin (Sumantri, 2005: 48), gross motor skills of early childhood should be able to do activities such as: jumping, catching a ball, and playing sports. In this study the authors used the following indicators, namely walking, running, jumping, throwing, hitting, hanging and kicking.

In developing gross motoric, activities that are in accordance with the stages of child development, one of which is in outbound play activities that take advantage of the school environment, namely balance through tire walkways. This type of play can require children to do coordinated body movements that are carried out outside the room. This game is a development of outbound games that provide direct experience (experiential learning) to children so that it can be done in early childhood with or without tools so as to produce understanding or information, provide fun, or develop children's imagination.

The outbound mini-game model is implemented through a circuit consisting of seven posts, so that a child must complete the seven posts. The development of an outbound mini game model based on natural potential will later be packaged in the form of a guidebook and equipped with a video tutorial containing video game steps which are expected to be able to help and facilitate teachers in delivering learning activities to children.

B. Methods

Location and Time of Research

The location of this research was carried out in RA Nurul Huda Denai Sarang Burung Lubuk Pakam, aged 5-6 years, Group B, because this school is located in a coastal area with learning experiences in the open, which is carried out in the schoolyard and similar research has never been carried out at the school. The time of this research was conducted from November to January 2021.

Research Subjects and Objects

Research subject

The subjects in this study were 3 teachers in Group B RA Nurul Huda Denai Sarang Burung Lubuk Pakam. Then 3 validation experts who have the following criteria: a) design expert, b). gross motorist, c). early childhood specialist.

Object of research

The object of this research is an outbound mini game developed by the researcher.

Outbound Mini Game Model Development Procedure

This research refers to the ADDIE development model. This model consists of five stages, namely Analyze, Design, Development, Implementation, and Evaluation (Sani & et al., 2018: 241.)

The product development procedure in this study is in the form of outbound mini game development which refers to the ADDIE development model which is clearly presented in Figure 1.

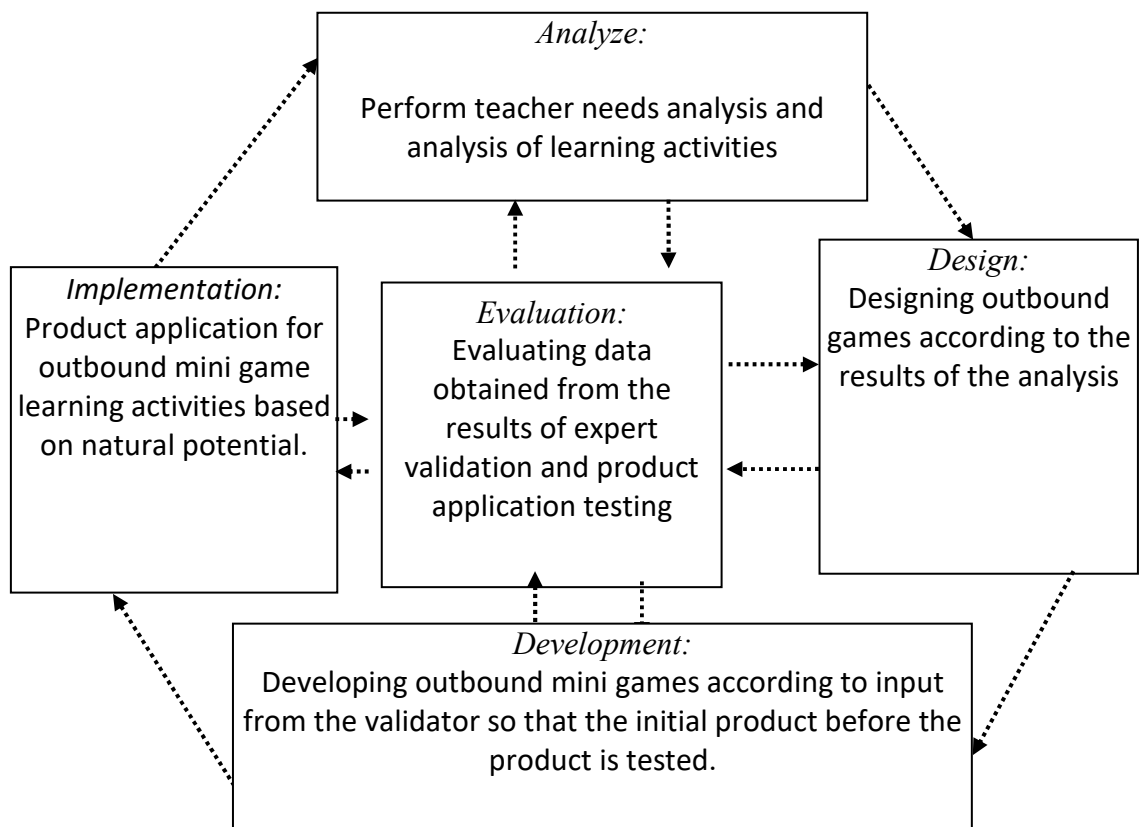


Figure 1. ADDIE Research and Development Model (Sani & et al, 2018: 241)

Data analysis technique

The Feasibility of Assessment Instruments for Mini Outbound Games Based on Natural Potentials

Product feasibility analysis dTaken from the assessment of the outbound mini game product feasibility assessment by expert validators, the assessment instrument is made in the form of a Likert scale that has been given a score as in the table below:

Table 1. Answer Criteria for Validation Instrument Items with a Likert Scale

No.	Criteria	Score
1	Very good	4
2	Good	3
3	Not good	2
4	Not good	1

(Source: Sugiyono, 2016: 165)

Then the data were analyzed descriptively quantitatively, namely calculating the percentage of indicators for each category in the developed activity book, with the formula:

$$Ps = \frac{\sum n}{\text{Maximum score}} \times 100\%$$

(Source: Arikunto, 2010: 21)

Information:

Ps : Score percentage

$\sum n$: The total score obtained

Maximum score: The sum of the total score

The results of the percentage of data are converted based on the criteria for the results of the score using the formula (Sudjana, 2005: 46-50) as follows:

Table 2. Evaluation Criteria for Expert Validation

Percentage	Criteria
82% - 100%	Very Worth it
63% - 81%	Well worth it
44% - 62%	Decent enough
25% - 43%	Not worth it

Effectiveness of Natural Potential-Based Outbound Mini Game Assessment Instruments

Assessment of Natural Potential Based Mini Outbound Game Assessment Instruments

Teacher response questionnaire analysis was taken from questionnaire data obtained from the teacher. The assessment

instrument is made in the form of a Likert scale which has been given a score as in the table below:

Table 3. Criteria for Answers to Instrument Items for Teacher Response Questionnaires with Likert scale

No.	Criteria	Score
1	Very good	4
2	Good	3
3	Not good	2
4	Not good	1

(Source: Sugiyono, 2016: 165)

Then the data were analyzed descriptively quantitatively, namely calculating the percentage of indicators for each category in the outbound mini-game activity based on the developed natural potential, with the formula:

$$Ps = \frac{\sum n}{Skor\ maksimal} \times 100\%$$

(Source: Arikunto, 2010: 21)

Information:

Ps : Score percentage

$\sum n$: The total score obtained

Maximum score: The sum of the total score

The results of the percentage of data are converted based on the criteria for the results of the score using the Sudjana formula (2005: 46-50) as follows:

Table 4. Criteria for Teacher Response Questionnaire Analysis

Percentage	Criteria
82% - 100%	Very Worth it
63% - 81%	Well worth it
44% - 62%	Decent enough
25% - 43%	Not worth it

C. Finding and Discussion

The Process of Developing Outbound Mini Games Model Based on Natural Potential to Develop Children's gross motoric

The purpose of this study was to produce a natural potential-based mini outbound game model on the gross motor skills of children 5-6 years. This research and development is packaged in the form of a video tutorial, with a Playground Sub-theme. To achieve these objectives, development research is conducted first. The steps taken to obtain gross motor development instruments in this study are the ADDIE development model. The ADDIE model steps include aspects of analyze, design, development, implementation and evaluation.

1. Data Design Expert Validation

The results of the design expert validation in the form of an assessment score on the components of the assessment content and their suitability with the mini outbound game model reached a score of 28 and a percentage of 70% was in valid qualification, which means that it is feasible to be tested with revision. The revision was given by the first design expert to be able to add a more complete game and make steps for each game.

After correcting the suggestions and comments from design experts, the researchers re-validated so that it can be seen the quality of the design of the development of children's gross motor skills.

The results of the design expert validation in the form of an assessment score on the components of the assessment content and their suitability with gross motor learning reached a score of 37 and a percentage of 92.5% was in a very valid qualification, which means that it is very feasible to be tested.

2. Data on the Validation of Gross motoric

The results of the gross motoric expert validation in the form of an assessment score on the components of the assessment presentation and compatibility with the mini outbound game model reached a score of 29 and a percentage of 72.5% were in valid qualifications, which means that it is feasible to be tested with revision. As for the revision given by the first gross motoric expert to improve the form of play, add gross motoric movements that use leg movements, reveal the yard environment around the school and pay attention to the characteristics of the child.

After correcting suggestions and comments from gross motoric experts, the researchers re-validated so that it could be seen the quality of the presentation of the natural potential-based mini outbound games, namely:

The results of the gross motor skills expert validation in the form of an assessment score on the components of the assessment presentation and compatibility with the mini outbound game model reached a score of 39 and a percentage of 97.5% were in very valid qualifications, which means that it is very worthy to be tested.

3. Early Childhood Expert Validation Results Data

The results of the early childhood expert validation in the form of an assessment score on the content components of the assessment and their suitability with the mini outbound game model reached a score of 14 and a percentage of 50% were in very valid qualifications, which means that it is quite feasible to be tested with revision. The revisions given by early childhood experts to improve the subject of enthusiasm, go straight to the outbound mini-game activities and the closing activities must be short, dense and appropriate to have fun with children.

After correcting the suggestions and comments from early childhood experts, researchers re-validated so that it could be seen the quality of the presentation of the natural potential-based mini outbound games, namely:

The results of the early childhood expert validation in the form of an assessment score on the components of early childhood assessment and compatibility with the natural potential-based outbound game model reached a score of 25 and a percentage of 89.2% were in valid qualifications, which meant that it was worth trying out.

Of the three validations of experts who have provided input and provided an assessment of the gross motor skills developed, the following is a comparison of the percentage of each expert validation. can be seen in Table 5.

Table 5. Results of Expert Validation Recapitulation

No.	Validator	Percentage	Validity	Appropriateness
1	Design Expert	92.5%	Very Valid	Very Worth it
2	Gross Motoric Expert	97.5%	Very Valid	Very Worth it
3	Early Childhood Specialist	89.2%	Very Valid	Very Worth it
Average		93.0%	Very Valid	Very Worth it

Based on table 5, the diagram of the recapitulation results of the expert validation of the outbound mini game model based on natural potential can be seen in Figure 2.

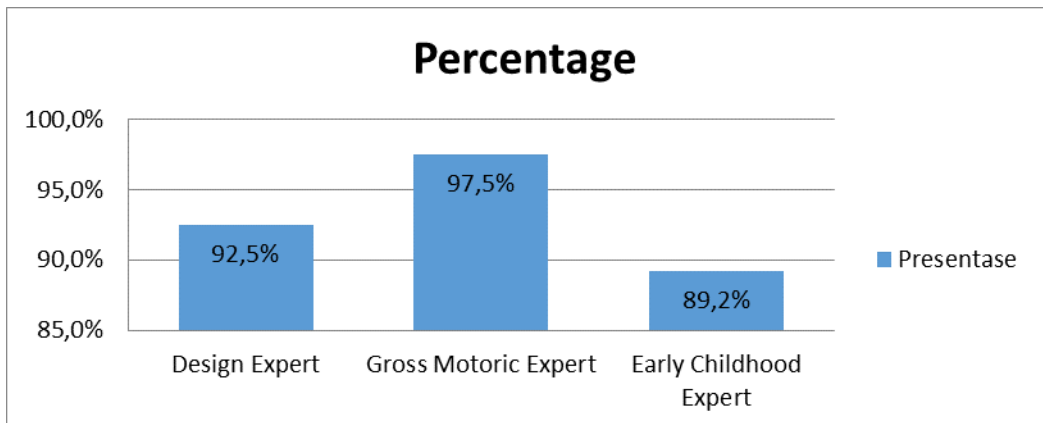


Figure 2. Recapitulation diagram of expert validation results.

Based on the three expert validations (design, gross motor skills and early childhood), there is a difference in the assessment. The highest assessment was found in gross motoric experts with a percentage of 97.5% and was categorized as very feasible, while the lowest assessment for early childhood experts was 89.2% and categorized as valid, while the average percentage score of the three experts reached a score of 93.0%. with a very valid and very feasible category.

Discussion

The ADDIE model is very easy to use as a guide in product development, because the ADDIE model has systematic and interactive steps. The product development research conducted is directed to produce a product in the form of an outbound mini game tutorial video based on natural potential used to assess or measure gross motor skills of children aged 5-6 years.

Therefore, the research process begins with, (1) analyze (analysis). This stage aims to analyze the various needs of teachers in learning, one of which is assessment. The results of the analysis are used as a [346]

consideration or reason for developing a product. (2) design (design) after knowing the product to be developed based on the results of the analysis, then the next stage is the design which aims to create a framework for mini outbound games based on natural potential. (3) development (development) where at this stage the researcher validates design experts, gross motorists and early childhood experts. (4) implementation (application) of outbound mini game model based on natural potential in RA Nurul Huda Denai Sarang Burung Lubuk Pakam after going through the development stage. (5) evaluation (evaluation) the last stage is in the form of evaluation of outbound mini game products based on natural potential, namely by testing its feasibility. The final result of the development research is a refined and tested outbound mini game based on natural potential.

Based on the analysis of needs, it was found that teachers were still unable to develop outbound mini games because the teachers did not use the yard around the school, so children outbound mini games were rarely done. The result of the development product is a mini outbound game to improve motor skills in children aged 5-6 years which is packaged in a video tutorial for the implementation of learning and includes an evaluation tool for children's motor skills.

The development of outbound mini games has gone through several revisions from expert judgments, and field trials. The final result in developing the outbound mini game model is that it is categorized as very feasible. Outbound mini games are assessed through several stages, namely the test stage to obtain an assessment of the product and obtain a product that is feasible to be applied in the implementation of motoric activities in children.

It can be seen that outbound mini games can improve motor skills in

children aged 5-6 years. The results of the research conducted showed that the gross motor skills of children aged 5-6 years increased after being treated with outbound mini games. This is supported by the opinion of Susanta (2010: 23) that through this outbound activity is a series of relatively light adventure activities so that children will easily train both physically and mentally. In line with the results of research Maryatun (2011: 2) that through outbound games can stimulate motor skills in children who will be responded to in the form of movement or physical activity.

Stages of Outbound Mini Game Model Based on Natural Potential

The result of the development product is a mini outbound game to develop motor skills in children aged 5-6 years which is packaged in a video tutorial for the implementation of learning and includes an evaluation tool for children's motor skills.

Outbound mini game development has gone through several revisions and trials conducted in the field. The final result in developing the outbound mini game model is that it is categorized as very feasible.

The outbound mini game is assessed through several stages, namely the test stage to obtain an assessment of the product and obtain a product that is feasible to be applied in the implementation of motoric activities in children. In addition, the results of this product are to develop motor skills in children, after the child is given treatment using outbound mini games, it can be seen that outbound mini games can develop motor skills in children aged 5-6 years. The results of the research conducted showed that the gross motor skills of children aged 5-6 years increased after being treated with natural potential-based mini outbound games.

This is supported by the opinion (Susanta, 2010: 23) that through this outbound activity is a series of relatively light adventure activities so

that children will easily train both physically and mentally. In line with the results of research Maryatun (2011: 2) that through outbound games can stimulate motor skills in children who will be responded to in the form of movement or physical activity. The use of outbound mini games based on natural potential in the implementation of learning, children become active because children will directly carry out activities in the form of physical movements, by utilizing the environment around the school so that they are able to train motoric children. The following is the final description of the outbound mini game:

1. Outbound mini games are designed according to the stage of the development of children's motor skills based on the literature study that the researchers conducted. There are seven playing activity posts, namely walking on the tire ledge, modified bowling, hanging, crawling in the tunnel, jumping over tires, hitting the ball, and kicking the ball. The series of exercises are made from light activities to strenuous activities.

The steps of the natural potential-based outbound mini game model:

- a. Steps from the natural potential-based outbound mini game model can provide an overview of the implementation of activities outside the classroom by utilizing the environment around the school through physical activity activities and direct instruction learning.
- b. The steps from the natural potential-based outbound mini-game model are packaged in a simple way, with the hope that it will be easy to understand and implement by both teachers and children.
- c. The steps in the outbound mini-game are packaged in a coherent series starting from opening activities (pre-warm-up and warm-up), core activities (Game Post 1 to Game Post 7) and Closing

activities (cooling down).

2. Video tutorial for the implementation of learning on the natural potential-based outbound mini game model:
 - a. Video tutorials will provide an audio-visual picture, so that it will be easier to understand and learn as a learning activity.
 - b. The instructional video shows learning activities using a natural potential-based mini outbound game model so that it is easy for the teacher to understand, easy for teachers and children to do and the media used can be adjusted to the child's abilities and can be modified according to availability at school.

D. Conclusion

The feasibility of the natural potential-based outbound game model developed based on the validation results has a high level of validity. Based on the results of assessments, criticisms, and suggestions from design experts, the score was 37 and the percentage of validity reached 92.5%, the gross motoric learning expert got a score of 39 and the percentage of validity was 97.5%, the early childhood expert got a score of 25 percentage points of validity 89.2 %, and linguists obtain a percentage of validity reaching 97.9%. Based on the data from the validation results, the natural potential-based mini outbound game model developed is very valid and feasible to use.

The results of the teacher's response to the natural potential-based outbound game model developed based on the results of the questionnaire had a very good response level. Based on the results of the analysis of teacher I responses with a score of 45 obtained a percentage of 86.5%. Teacher II obtained a score of 47 by obtaining a percentage of 90.3%. The results of the analysis of the response of the teacher III

obtained a score of 48 with a percentage of 92.3%. Based on the data from the analysis of the teacher's response to the outbound mini-game model based on natural potential developed into a very good response criteria so that it means that the model can be said to be very feasible.

Based on the results of the trial, the trials carried out were small group trials and field trials with 10 students as the treatment of natural potential-based outbound games. Based on the results of the Wilcoxon sign-rank difference test with a result of 0.004. The results of the significance of $0.000 < 0.05$, it can be concluded that there is a difference between the pretest and the post-test results. This is reinforced by the average value that increased to 3.5 after being given treatment through the outbound game model. The posttest results show better results than the pretest, therefore the conclusion is that H_0 is rejected and H_a is accepted.

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