**DEVELOPMENT OF MATHEMATICAL LEARNING DEVICE BASED ON ETHNOMATHEMATICS IN CHARACTER EDUCATION LEARNING STUDENT LEVELS SMP / MTs**

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| A R T I C L E I N F OOriginal ArticleReceived: xx, xx. xxxx.Revised: xx, xx. xxxx.Accepted: xx, xx. xxxx.doi: xxxxxxxxxx | A B S T R A C TThe application of ethnomatematics-based character education that is integrated into learning can be through the development of learning tools. Learning tools consist of syllabus, RPP, LKS, learning resources, instructional media, and evaluation tool. The purpose of this study is to explain the development of syllabus, RPP, and LKS mathematics based on ethnomatematics in strengthening the education of the character of the students of grade VIII SMPN 2 Tarik. This research is a development research. In general, this research will be implemented in three stages, namely: define, design, and develop. The define phase includes the analysis of syllabus, RPP, and LKS; the design stage includes the preparation of draft learning tools (syllabus, RPP, and LKS) and instruments, the development stage includes the test phase of learning tools, evaluation and perfection of learning tools. This research will be conducted in SMP / MTs Class VIII in Sidoarjo District. Validation result from expert validator as follows: syllabus device with value 4,62 with category very valid, LKS device with value 4.59 with category very valid, while device RPP with value of 3,55 with category very valid. While the results of the questionnaire students with an average score of 89% with very good category © 2018 IJTLM. All rights reserved. |
| Keywords:*Development, Learning Device, Ethnomatematics, Character Education.* |

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**INTRODUCTION**

 Indonesia's cultural diversity exists from Sabang to Merauke is an invaluable asset, so it must be maintained and preserved. In addition, the Indonesian nation has a diversity of cultures and traditions, languages, religions, beliefs, geographical conditions, and levels of civilization (Tan, n.d.).

 Indonesian nation there are more than 300 ethnic groups or ethnic groups in Indonesia. According to the BPS census (2010) there are 1340 ethnic groups. With a variety of ethnic groups / ethnic groups, it will affect the culture that develops in each ethnic tribe / ethnic group even in a region or region(Pintar Pandai, 2017).

 Cultural values ​​that form the basis of the character of the nation is an important thing instilled in every individual. Thus, cultural values ​​need to be instilled early, so that each individual can better understand, interpret, and appreciate and realize the importance of cultural values ​​in carrying out every activity of life. The cultivation of cultural values ​​can be done through the family environment, education, and in the community environment(Wahyuni, 2013).

 The benchmark for the success of a country or a nation is the success of the younger generation in the future, because maintaining success is usually more difficult than to seize the success itself. The younger generation is the successor of the leadership baton, the struggle to remain strong, along with the task, the competition in various fields is also higher which is caused by the swift flow of capital turnover of services throughout the world that affect the national integrity, all may only be lived with competitiveness qualities that are competitive high(Budiwibowo, 2013).

 The cultivation of cultural values ​​in education can be cultivated with etnomatematics. Ethnomatematics as a mathematics education that integrates the values ​​of culture in the learning of mathematics need to initiate the real integration of cultural values(Sirate, 2015).

 The application of etnomatematics to form the character of the nation to be more optimal then it can be integrated in learning. This reinforces the development of students' thinking skills in a concrete, integrative, and hierarchical way.

 Ethnomatematics on strengthening the character of students is the development of human resources (HR) which is the foundation of nation building. The development of character values ​​in this lesson to prepare the gold generation 2045. The generation is devoted, tough, independent, and has the advantage of competing globally.

 The application of ethnomatematics-based character education that is integrated into learning can be through the development of learning tools. Learning tools consist of syllabus, RPP, LKS, learning resources, instructional media, and evaluation tool. However, in this study will be developed learning tools that is syllabus, RPP, and LKS subject mathematics class VIII in SMP / MTS in Sidoarjo regency.

 Sidoarjo Regency is a Javanese tribe consisting of various districts that have a culture / tradition that developed in the community. Therefore, the development of ethnomatematics-based devices in strengthening the character will be an innovation of Indonesia's educational progress.

 Based on the above background, it needs integration of cultural values ​​in strengthening the character of learning mathematics. Thus, it is necessary to conduct research on " Development Of Mathematical Learning Device Based On Ethnomathematics In Character Education Learning Student Levels SMP / MTs".

**METHOD**

 This research is a research development (research and development) namely Development of Mathematics Teaching Tools Based on Ethnomatematics in Strengthening Character Education Students Class VIII SMPN 12 Tarik.

 Overall, the research activities will be conducted in three stages: syllabic, RPP, and LKS (define), drafting of learning tools (syllabus, RPP, and LKS) and instrument (design), and test phase of instructional tools, evaluation as well as refinement of learning tools (develop). These three stages are an integral part of a development research design.



**RESULTS AND DISCUSSION**

Recapitulation of the results of the assessment of ethnomathematics devices by material experts, media experts, and linguists.

**Table 4. Recapitulation of Learning Device Assessment**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Device Type** | **Average** | **Kategori** |
|  1 | RPP | 4.62 | Very Valid |
| 2 | LKS | 4.59 |  Very Valid |
|  3 |  Syllabus | 3.55 |  Very Valid |
| **Conclusion** | Very Valid |

 Learning device can be said to be valid / valid if it has been through the assessment stage by material experts, media experts, and linguists. After going through the assessment stage of material experts, media experts, and linguists then this learning tool can be declared eligible / valid to be developed. Validation results from the expert validator as follows: the syllabus device with a value of 4.62 with the category is very valid, LKS device with the value of 4.59 with the category is very valid, while the RPP device with the value of 3.55 with the category is very valid.

 After going through the validation stage by the material experts, media experts, and linguists further learning tools tested by spreading the questionnaire of student responses. Learning tool is implemented in class VIII SMPN 2 Tarik Sidoarjo. Based on the data analysis of questionnaires, the response of students obtained the results showed that the learning tools developed get very good category with the percentage of 89%. This indicates that the developed learning tools are worthy of being used as a learning tool of etnomatematics.

**CONCLUSION**

 Based on the results presented, it can be concluded that the tools of learning ethnomatematics for strengthening character education in the form of RPP, LKS and syllabus obtained validation results from the expert validator as follows: syllabus device with a value of 4.62 with the category is very valid, LKS device with a value of 4, 59 with very valid category, while RPP device with value 3.55 with category is very valid. After going through the validation stage by the material experts, media experts, and linguists further learning tools tested by spreading the questionnaire of student responses. Learning tool is implemented in class VIII SMPN 2 Tarik Sidoarjo. Based on the data analysis of questionnaires, the response of students obtained the results showed that the learning tools developed get very good category with the percentage of 89%. This indicates that the developed learning tools are worthy of being used as a learning tool of etnomatematics.

**REFERENCES (Font size 11pt, Bold, Kapital)**

Budiwibowo, S. (2013). Membangun Pendidikan Karakter Generasi Muda Melalui Budaya Kearifan Lokal Di Era Global. *Premiere Educandum*, *3*(1), 39–49. Retrieved from http://e-journal.ikippgrimadiun.ac.id/index.php/JPE/article/view/34

Pintar Pandai. (2017). No Title. Retrieved from https://www.pinterpandai.com/suku-bangsa-di-indonesia/

Sirate, S. F. S. (2015). MENGGAGAS INTEGRASI MULTIKULTUR PEMBELAJARAN MATEMATIKA: suatu telaah etnomatematika. *Jurnal Pendidikan Dasar Islam*, *2*(2). Retrieved from http://journal.uin-alauddin.ac.id/index.php/auladuna/article/view/880

Tan, V. (n.d.). No Title. Retrieved from https://vimalatan.wordpress.com/kebudayaan-nusantara/keanekaragaman-budaya-indonesia/

Wahyuni, D. (2013). Peran Etnomatematika Dalam Membangun KArakter Bangsa. *Prosiding FMIPA UNY*, (November), 978–979.