Development Of Homeroom Teacher Model Based On Information Technology In Improving Service Quality In Students.

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Abstract: The burden of assignment as a homeroom teacher makes it difficult for teachers to divide their time between compulsory assignments as subject teachers and additional assignments as homeroom teachers. Homeroom has a task area that requires knowledge, understanding, management and the application of management functions in managing their work. This study aims to develop an information technology-based homeroom management model in improving the quality of service to students. The development of homeroom management model based on information technology in improving the quality of service to these students, using the ADDIE model (analyze, design, development, implementation, and evaluate). Data collection instruments in the form of observation sheets and questionnaires. The product was validated by an expert and tested on the homeroom teacher at senior high school. Quantitative data were obtained through questionnaires and qualitative data obtained through observations, responses, and suggestions provided in writing. The practicality of the information technology-based homeroom management model is determined based on the guardian's response to the practicality of this model. While the effectiveness of this model is determined by the activities of the homeroom teacher and school principal. Data validity, practicality, and effectiveness were analyzed using the formula of respondents' total achievements and percentages. This research produces an information technology-based homeroom management model with a product in the form of an information technology-based homeroom management model book and an information technology-based homeroom management guidebook with web-based applications. The findings of this study can be utilized by the homeroom teacher in homeroom teacher's work management.

Index Terms: Homeroom, management, model development, information technology

1. INTRODUCTION

The role of teachers in schools is seen as having a big role in shaping character, personality, and noble character, and encouraging student competency improvement. The teacher as ASN has mandatory assignments as well as additional assignments. One of the additional tasks is as a homeroom teacher. It's required to have competence in managing their work. Classroom management activities are not simple activities or routine activities that can be done haphazardly, but a professional activity of planned learning services that must be handled seriously (Sagala, 2012: 85). Homeroom teachers must understand the area of work they have to do. Assignments that must be done by the homeroom teacher must be planned and managed by the homeroom teacher intentionally, so that the homeroom teacher carries out the activities to be directed, clear, measurable, and can avoid conditions or situations that can interfere with or harm the students they trust. The assignment of teachers as homeroom teachers is contained in the Appendix to the Ministry of Education and Culture Regulation No. 4 of 2015, where teachers who get additional assignments as homeroom equivalents as face-to-face hours are 2 hours. Then strengthened in Permendikbud Number 15 of 2018 Article 6 provides 2 hours face-to-face legality for teachers who get additional assignments as homeroom teachers. The series of homeroom activities in managing their work is closely related to activities in management. Homeroom Management is carried out to help homeroom teachers carry out their work in providing services to students by implementing management functions consistently and effectively. Achievement of each class unit provides an overview of the achievements of the school because the class is a small-scale organizational unit that is part of the school organization. If these classes are well managed by the homeroom teacher it is hoped that this will have an impact on the success of the school in improving the quality of its graduates. The management activities raised by Terry became the attention of the homeroom teacher in carrying out their duties, namely (1) planning. The homeroom teacher designs a series of activities that will be carried out for one school year. The homeroom teacher prepares a work plan, precisely, and directed so that the goals and objectives to be achieved do not come out of the vision, mission, and goals of the school that has been set. (2) Organizing, at this stage, the homeroom teacher classifies the activities that exist in the planning to be carried out by people involved in homeroom work, namely subject teachers, counseling guidance teachers, students, including work done by the homeroom teacher own class. (3) Actuating is the management activities carried out by the homeroom teacher to realize the results of planning and organizing in the form of concrete performance. Homeroom teachers conduct activities by moving subject teachers, counseling guidance teachers, and students to carry out activities by their respective fields. (4) Controlling, controlling includes activities to see whether the activities carried out according to plan or changes occur. Counter-counseling is carried out by the principal of the homeroom teacher, and by the homeroom teacher on student activities in the guarded class. Supervision of all activities in planning, organizing and mobilizing, to anticipate all forms of weaknesses and shortcomings and deviations from the planning of activities carried out (Terry, 2013). According to Bendriyanti's research in 2015 was the conclusion that quality service can be identified through student satisfaction. Bendriyanti Conclusion subsequently the implementation of service quality improvement can be carried out with the application of IT / ICT in the service quality management process that can improve the quality of efficiency and provide fast, precise, and accurate service capabilities, perfecting and establishing the curriculum for all types and levels of the program. The results of a questionnaire of 15 homeroom teachers from high schools in 10 regencies in West Sumatra, the attached list can be concluded that: (1) Teachers have difficulty in making effective time between assignments as a homeroom teacher, with mandatory assignments as subject teachers with face-to-face hours of at least 24 hours / Sunday. (2) Homeroom teachers have limitations in getting data and
information about students they control from subject teachers and students themselves; (3) there is no specific guidebook that they can guide in managing class administration and in managing the work of homeroom teachers; (4) the use of information technology in the management of class homeroom work is still limited to the collection of grades, entry and filling of report cards, including the provision of information to class citizens through WA or FB. The use of information technology is not yet included in the substance of other homeroom teachers' assignments. ; (6) the homeroom teacher has not received data from students to get to know them, both their character, talents, interests and potential they have. (7) the homeroom teacher has not been effective in providing information needed by the school about the profile and data of students who are given complete trust, (8) Homeroom teacher has not been able to provide guidance and motivation in accordance with the needs of students, due to the lack of data held by the homeroom teacher as a basis for providing the services they need. (9) control over the performance of homeroom teacher tasks has not yet proceeded as expected. This is due to the limited time the principal and the team do in controlling. The results of this questionnaire provide an initial description that, in carrying out the work the homeroom teacher requires knowledge and understanding of the field of work, management and implementing management functions in the management of his work. The use of information technology in homeroom management. The need for homeroom teachers to obtain student learning outcomes data from subject teachers, student development from counseling guidance teachers, and students' profile data, self-potential, and student living conditions. This information is very valuable for homeroom teachers to provide assistance and services according to the needs of students. Based on some of the causes found, and starting from the Ministry of Education and Culture of the Republic of Indonesia Number 15 of 2018 regarding the Fulfillment of the Work of Teachers, Principals and School Supervisors contained in article 6 and attachment 1 regarding the description of homeroom teacher's job description. An information technology-based homeroom management model was developed to improve the quality of service to students. The homeroom management model can be a solution in helping the homeroom teacher manage his work. The products produced in this research are information technology-based homeroom management model books and information technology-based homeroom management manuals that are equipped with web-shaped applications and application usage instructions. It is expected that the presence of this research product will have a positive impact on the homeroom teacher in carrying out their duties. This study aims to obtain the characteristics, level of validity, practicality, and effectiveness of information technology-based homeroom management models in high schools.

2 METHODOLOGY

This research, using the type of Research and Development (R and D) research. The development model used in this study is ADDIE (analysis, design, development, implementation, and evaluation). Explanations for each stage of the ADDIE model development are as follows:

1. Analysis

This stage is carried out an analysis of the needs of homeroom teacher in homeroom management when carrying out their duties. The first step starts with finding and digging information from the homeroom teacher about the management of the homeroom teacher they have done so far and their future needs, through questionnaires.

2. Design (Model Design)

This activity starts from the stage of determining the product planning to be developed, the suitability of the product with the product users, and the components contained in the product to make it easier for users to use it. All of these activities are following the stage of analysis that has been carried out. The second stage in this research is the design stage or blueprint which is carried out based on the formulation in the analysis phase to realize the homeroom management model book and the homeroom management manual that is equipped with web-shaped applications and application usage instructions.

3. Development

This stage is the stage in which the design of an IT-based homeroom management model design becomes a reality. In realizing this, several steps have been taken, namely, the model that has been designed, developed by involving experts as validators. Experts involved are experts in education, management, language, information technology, and media. The validator assesses the model book and the homeroom management manual that is equipped with web-based applications and application usage instructions, using a validated questionnaire. The expert assesses the product, if the product developed is considered valid then it is appropriate to use. If the expert recommends that it is invalid then it needs to be revised again. If the expert judgment already states that the prototype is valid, then the research continues in the next stage. The validator assesses the model book and the homeroom management manual that is equipped with web-based applications and application usage instructions, using a validated questionnaire. The expert assesses the product, if the product developed is considered valid then it is appropriate to use. If the expert gives an invalid assessment, it needs to be revised again. If the expert judgment already states that the prototype is valid, then the research continues in the next stage.

4. Implementation

At this stage, a limited number of products are tested. The trial was conducted in the form of implementing a homeroom management model using an information technology-based homeroom management model book and an information technology-based homeroom management guidebook equipped with web-based applications, and application usage instructions. After a limited trial, a Focus Group Discussion (FGD) was conducted to obtain input, suggestions by involving validators, and education practitioners, by providing a validation questionnaire and a written suggestion sheet to test the practicality of the model.

5. Evaluation

In this evaluation phase, the activities carried out include an assessment of step by step as well as an overall assessment of the application of the information technology-based homeroom management model by the homeroom teacher. This stage requires practicality and effectiveness of the results of the implementation of research products that are used to collect data to obtain information about the information
technology-based homeroom management model in improving the quality of service to students by the needs of the homeroom teacher. The instrument used to collect data in this study was a questionnaire for analyzing the needs of homeroom teachers in managing homeroom work and the homeroom perception about information technology-based homeroom management models. The next activity is to observe the homeroom teacher see the management documents that have been owned and applied by the homeroom teacher, expert assessment sheets on information technology-based homeroom management models, and the homeroom questionnaire about the information technology-based homeroom management model developed. The product trial aims to find out whether the product made is suitable for use or not. This trial not only looks at the feasibility of the product but also to see the product produced is valid, practical, and effective. For this reason, validity, practicality, and effectiveness tests are needed.

1. Validity
This data analysis is performed using the following formula:

\[ R = \frac{\sum_{j = 1}^{n} V_{ij}}{nm} \]

Ketentuan :
\[ R = \text{average} \]
\[ V_{ij} = \text{score of the jth expert's evaluation of the i-th criterion} \]
\[ n = \text{number of experts evaluating} \]
\[ m = \text{number of criteria} \]

Based on the validity test of this instrument, the results show that the instrument needs assessment, practicality is declared valid to be used in capturing research data, and obtained rcount> 0.819 with a significance level of α = 0.05. The practicality of the model book gets the result of r count 0.794> 0.632 and the practicality of the guide book is r count 0.836> 0.632 with a significance level of α = 0.05.

2. Practicality
This data analysis is performed using the following formula:

\[ R = \frac{\sum_{j = 1}^{n} V_{ij}}{nm} \]

Ketentuan :
\[ R = \text{average} \]
\[ V_{ij} = \text{score of the jth expert's evaluation of the i-th criterion} \]
\[ n = \text{number of experts evaluating} \]
\[ m = \text{number of criteria} \]

Data analysis in this study uses quantitative data analysis and qualitative data analysis. For quantitative data collected from the results of filling in the information technology-based homeroom teacher management questionnaire in improving the quality of homeroom services for students is processed statistically by tabulating total scores, average scores, ideal scores and percentage of respondents' achievements.

\[ \text{Achievement rate} = \frac{\text{Average score}}{\text{Total score}} \times 100\% \]

3 RESULTS AND DISCUSSIONS
The results of the research that have been carried out are described as follows:

1. Analysis

The problems encountered at this stage will be the basis for producing a management model as a solution to the problem. The findings that become a problem at this stage of the analysis are obtained from the needs analysis. Based on the identification of the problems that have been done by distributing questionnaires, the data obtained into a needs analysis include planning analysis, organizational analysis, implementation analysis, and control analysis. Planning analysis has the aim to gather information about the activities of the homeroom planning in the management of work, at this stage of planning analysis it is concluded that there are 9 problems encountered with an average value of 43.33 or classified as medium / not implemented well. Organizational analysis has three indicators to be analyzed, namely: division of tasks, helping coordination and facilitating supervision. At this organizational analysis stage, it was concluded that there was 1 item that was encountered with a value of 43 or was classified as medium / not yet implemented well. Implementation analysis is inseparable from planning and organizing. There are two indicators in the implementation of the homeroom teacher work, namely: procedure and effectiveness. In the analysis phase of this implementation, it was concluded that there were 16 problems encountered with an average value of 36.34 or classified as weak / not yet implemented.

2. Design Phase
At the design stage of the model development, a design blueprint is carried out based on data obtained from the analysis activities. At this stage, the researcher designed 2 (two) development products consisting of information technology-based homeroom management model book and information technology-based homeroom management manual equipped with web-shaped application and application usage instructions.

2. Development Phase
Development is the stage of making an information technology-based homeroom management model until expert review. At this stage, the IT-based homeroom management model begins to be formed based on the steps outlined in the design stage.
a. Book Management Model Guardian Class Based on Information Technology

Information technology-based homeroom management model book is designed based on a model structure based on rationality, theoretical foundation, philosophical foundation, the juridical foundation of homeroom teacher and quality tools.

Table 2. Results of Book Validation Model of Homeroom Management Model Based on Information Technology

<table>
<thead>
<tr>
<th>No</th>
<th>Rated aspect</th>
<th>Average</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Purpose, Graphic and Benefits</td>
<td>3.92</td>
<td>Valid</td>
</tr>
<tr>
<td>2</td>
<td>Linguistic</td>
<td>4.29</td>
<td>Very Valid</td>
</tr>
<tr>
<td>3</td>
<td>Presentation</td>
<td>4.14</td>
<td>Valid</td>
</tr>
<tr>
<td>4</td>
<td>Book Content / Material</td>
<td>4.5</td>
<td>Very Valid</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>4.21</td>
<td>Very Valid</td>
</tr>
</tbody>
</table>

b. Information Technology Based Homeroom Management Guidebook Handled with Web Based Homeroom Management Applications and Application Usage Instructions

Information technology-based homeroom management manuals are equipped with homeroom management applications and application usage instructions that contain material regarding the use of homeroom management applications that are the media of this model. The homeroom management application is in the form of a web-based homeroom management information system, which is an information system that can be used by the homeroom teacher to get data about students both academically and non-academically. This application can also be used by school principals as a means of monitoring the implementation of homeroom teacher assignments, subject teachers and class achievements. This system is designed in the form of electronic applications through the internet or offline media according to the needs of homeroom teachers. Users of this Homeroom Management Application consist of 1) School Principal, 2) Homeroom Class, 3) Students.

Table 3. Results of Validation of Information Technology-Based Homeroom Management Guidebook Equipped with Web-Based Homeroom Management Information System Application

<table>
<thead>
<tr>
<th>No</th>
<th>Rated aspect</th>
<th>Average</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Purpose, Graphic and Benefits</td>
<td>3.77</td>
<td>Valid</td>
</tr>
<tr>
<td>2</td>
<td>Linguisic</td>
<td>4.29</td>
<td>Very Valid</td>
</tr>
<tr>
<td>3</td>
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<td>Valid</td>
</tr>
<tr>
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<td>Book Content / Material</td>
<td>4.3</td>
<td>Very Valid</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>4.13</td>
<td>Valid</td>
</tr>
</tbody>
</table>

4. Implementation Phase

The application phase is carried out through limited trials. The limited trial is an initial evaluation of the product to be produced. Limited trials emphasize the aspect of the load rather than the outcomes, so the devices that have been arranged are in a good category and can be applied. Limited trials were conducted from 21 to 22 May 2019 at SMAN 1 Koto Baru. Based on the results of a trial conducted by an observer named Hayatun Nufus S, Pd., Bedrial Rahmad, S.Pd., Lina Misra S.Ag at SMAN 1 Koto Baru, it can be concluded that all steps and components use the Class Guardian Management Model Book Based on Information Technology and Management Guidebook Class Information Technology-Based Homeroom in Improving the Quality of Services for Students developed can be implemented with an average of 4.11 with a percentages of agreements between the three observers of 82% or are in the category of good agreement.

5. Evaluation Phase

The evaluation phase is carried out through trials at SMAN 1 Koto Baru, located in Dharmasraya Regency. This evaluation phase is carried out to obtain practicality data.

Table 4. Frequency Distribution of Practicality of Information Technology Based Guardian Class Management Book Model

<table>
<thead>
<tr>
<th>No</th>
<th>Interval Class</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&gt; 4.2</td>
<td>7</td>
<td>53.85</td>
<td>Very practical</td>
</tr>
<tr>
<td>2</td>
<td>3.40 - 4.1</td>
<td>6</td>
<td>46.15</td>
<td>Practical</td>
</tr>
<tr>
<td>3</td>
<td>2.60 - 3.39</td>
<td>0</td>
<td>0</td>
<td>Practical enough</td>
</tr>
<tr>
<td>4</td>
<td>1.81 - 2.59</td>
<td>0</td>
<td>0</td>
<td>Less Practical</td>
</tr>
<tr>
<td>5</td>
<td>&lt;1.80</td>
<td>0</td>
<td>0</td>
<td>Not Practical</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>13</td>
<td>100.00</td>
<td></td>
</tr>
</tbody>
</table>

Table 5. Frequency Distribution of Practicality of Information Technology Based Homeroom Management Guidebook

<table>
<thead>
<tr>
<th>No</th>
<th>Interval Class</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&gt; 4.2</td>
<td>5</td>
<td>38.46</td>
<td>Very practical</td>
</tr>
<tr>
<td>2</td>
<td>3.40 - 4.1</td>
<td>8</td>
<td>61.54</td>
<td>Practical</td>
</tr>
<tr>
<td>3</td>
<td>2.60 - 3.39</td>
<td>0</td>
<td>0</td>
<td>Practical enough</td>
</tr>
<tr>
<td>4</td>
<td>1.81 - 2.59</td>
<td>0</td>
<td>0</td>
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<td>5</td>
<td>&lt;1.80</td>
<td>0</td>
<td>0</td>
<td>Not practical</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>13</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

c. Effectiveness

Table 6. Frequency Distribution of School Principal and Homeroom Teacher Activities Using Information Technology Based Homeroom Management Applications

<table>
<thead>
<tr>
<th>No</th>
<th>Interval Class</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>90% ≤ model implementation</td>
<td>2</td>
<td>12.5</td>
<td>Classified as very</td>
</tr>
</tbody>
</table>
DISCUSSION

a. Based on the table 3, Results of Validation of Information Technology-Based Homeroom Management Guidebook Equipped with Web-Based Homeroom Management Information System Application is 4.13 and category valid. Then it can be concluded the validation of the activities of the principal and homeroom teacher in using the homeroom management application based on information technology, it is stated that the feasibility of the model is high and valid used.

b. Based on the table 4, it can be explained that theoretically, it has a frequency of 13 with a low score of small than 1.8 and a high score of 4.2. Based on the results of data analysis, it can be stated that the very practical category as a percentage of 53.85% with a frequency of 7 and the practical category as a percentage of 46.15% with a frequency of 6. Viewed from the frequency and percentage of the table above, the Practicality of Management Information-Based Class Book Management Model declared very practical and feasible to use. Based on the table 5, it can be explained that theoretically, it has a frequency of 13 with a low score of small than 1.8 and a high score of 4.2. Based on the results of data analysis it can be stated that the very practical category as a percentage of 38.46% with a frequency of 5 and the practical category as a percentage of 61.54% with a frequency of 8. Viewed from the frequency and percentage of the table above, the Practicality of Management Information-Based Guardian Management Guidebook declared practical and feasible to use.

c. Based on the table 6, it can be explained that theoretically, it has a frequency of 16 with the lowest score of 60% -70% and the highest score of 90% - the feasibility of the model. Based on the results of data analysis, it can be stated that the category classified as very high has a percentage of 12.5% with a frequency of 2 and a category classified as high has a percentage of 87.5% with a frequency of 14. Then it can be concluded the effectiveness of the activities of the principal and homeroom teacher in using the homeroom management application based on information technology, it is stated that the feasibility of the model is high and effectively used.

4. CONCLUSION

From the results of this study, a technology-based homeroom management model was obtained by producing a product in the form of an information technology-based homeroom management model book with a validity level of 0.794, practicality 4.14 and an information technology-based homeroom management guidance book equipped with web-shaped applications, with a level of validity 0.836, practicality 4.13. The effectiveness of using information technology-based homeroom management applications is 83.98%. The findings in this study indicate that the product produced is valid, practical, and the effectiveness of this product is high.

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