



Development of a Web-Based School Library Information System Management Training Model in Labuhanbatu

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Abstract

This research is a response to challenges in school library management, including manual data management and the need for effective human resource management. The research method used is the Research and Development (R&D) method, which consists of several stages such as preliminary studies, development, and product determination. The purpose of this study was to produce an effective training design to improve the quality of web-based library management in Labuhanbatu Regency. The training was aimed at library heads, library staff, and prospective library heads in secondary schools in Labuhanbatu. The needs analysis stage involved interviews and questionnaires to training participants, which indicated the need for increased knowledge in the management of web-based library information systems. The development process included designing a training model, creating training modules, training materials, and web-based training media. The training combined practical and theoretical models, with simulations of the use of web-based library information systems. Evaluation was conducted through performance tests and validation by experts. The evaluation results showed that the training design was rated as excellent by the experts, with an average score of 86.70% for the material and 89.30% for the media. The final product is considered internally valid and can be implemented. The scores from the questionnaire test of the trainees showed the success of the training with a percentage of 76.11%. Statistical tests showed that participants' knowledge increased significantly after the training. The N-Gain Score value of 62.68% indicates that the training model is quite effective.

Introduction

The school library is the main facility provided by the school to support the quality of the school. Currently, there are still some problems that occur in school libraries such as still managing library data manually, making it prone to errors in book loan transactions because the data has not been documented properly.

School libraries play an important role in learning and teaching activities at school, so there needs to be good management of the library. According to Terry in Sudirman (Asrin, 2021), management is a typical process in the form of planning, organizing, mobilizing and supervising actions to achieve predetermined goals by utilizing human resources and other resources. Although the school library does not pursue material value, its management must be carried out professionally so that the purpose of organizing the library can be realized.

According to Junaidi et al. (2023), the term management or training management includes the following stages of activity: (1) Planning; (2) Organizing; (3) Staffing; (4) Directing; (5) Supervision (Controlling).

The scope of library activities includes developing library materials, processing library materials, storing and distributing information. All of these activities must be managed properly. Rahayuningsih in (Wardhana et al., 2023) states that the scope of library activities must be managed properly by requiring management science which consists of developing library materials, processing library materials, storing and distributing information.

The quality of human resources must be directed and developed in order to realize the goals of each agency/organization. In principle, human resources are divided into 2 (two) aspects, namely the quantity aspect which includes the number of human resources available and the quality aspect which includes the ability of human resources (Tamsuri, 2022).

According to Law Number 43 of 2007 concerning libraries in Article 29 Paragraph 2 states that library management human resources consist of librarians and library technical personnel. Librarians must meet qualifications in accordance with national library standards. Human resource management is planning, organizing, Directing, and supervising the procurement, development, compensation, integration, maintenance, and termination of labor relations with the intention of assisting in achieving organizational, individual, and community goals (Idris & Rahayu, 2024).

Human resource management is planning, organizing, directing and supervising the procurement, development, compensation, integration, maintenance and termination of labor relations with a view to helping achieve individual organizational goals, and society (Gunawan et al., 2024).

According to Sulisty-Basuki in (Kusumaningrum, 2023), a library is generally a room, part of a building, the use of which is to store books and publications that are generally stored based on a certain order aimed at readers, not for sale. According to (Kusumaningrum, 2023), school libraries are generally libraries located in schools as a form of learning facility in supporting preschool learning objectives, basic learning, and secondary learning and providing services to students and teachers in the learning process.

Most libraries today are still conventional by having neatly arranged bookshelves. Over time, libraries have begun to switch to web-based libraries. The advantages of web-based libraries are that they have easy access to information, do not require maintenance of library collections so that they are more cost-effective, safer collection storage, fast and efficient access, borrowing, and returning, and easy to monitor and manage book data collection.

Web-based libraries have many advantages compared to traditional libraries, namely not limited by space, not limited by time, avoiding physical damage to books, facilitating the learning process, more efficient use of information, multiple access, more accurate, wider library network, information search, and no need to cut down trees. The disadvantages of web-based libraries are that there are Copyright Law regulations, depend on access/signal speed, need computer maintenance, can cause eye pain, require greater costs, and cannot enjoy the atmosphere of the library (Akbar & Fauzi, 2023).

The number of schools under the auspices of the Ministry of Education and Culture in Labuhanbatu Regency in 2022 is 421 schools consisting of: (1) Elementary School (SD): 287 Schools; (2) Junior High School (SMP) : 69 schools; (3) Senior High School (SMA) : 34 schools; (4) Vocational High School (SMK) : 31 schools.

Furthermore, in 2019, the Labuhanbatu Regency Government held computer and internet training on the second floor of the Library Office on Jalan Meranti Rantauprapat. This activity

is one of the Labuhanbatu Regency Public Library Development Revitalization Programs based on social inclusion (Lee, 2024). With the aim that students and students or training course participants can operate IT systems to read books or applications online. Because the library is currently using a Digital Library Application better known as e-Book, so that users no longer entirely use conventional books, but can open digital applications that have been provided by the Labuhanbatu Regency Public Library.

The management of library management in schools in Labuhanbatu Regency still utilizes traditional ways of working so that it requires longer working hours for Library Staff in carrying out jobs such as recording visitor guest books, member data, book data, book borrowing data, book return data using ledgers, thus requiring a lot of book recording data (Arief, 2023). Meanwhile, in practice, many students and teachers visit to borrow and return books in the library.

In connection with this, several problems were found such as manual data management resulting in data that cannot be accessed quickly, data searches cannot be done easily, data can experience redundancy (duplication or repetitive storage of the same data), poorly organized book loan data resulting in books that are difficult to track and easily lost, less accurate in determining the deadline for returning books, no fines for late book returns, and less efficient in making reports. Some of the problems mentioned will certainly affect the quality of service and performance in the library (Rajendran et al., 2024). So to be able to overcome this, it is necessary to build a library information system.

The skills of school library managers have a huge impact on the development of the library. Currently, many school librarians still lack the necessary librarianship skills (Zarghani et al., 2021). School librarian leaders must continue the required librarianship studies in order for a library to run effectively. With the implementation of education and training activities, it can develop the competence of prospective library heads to work according to competency standards. The competency standards are stated by Permendiknas Number 25 of 2008 concerning School or Madrasah Librarian Standards, which regulates the competencies required by a Head of School Library. Administrative, information management, educational, personality, social, and professional development skills needed by school librarians and school library staff (Mandal & Dasgupta, 2019).

Methods

The approach used in this research is a qualitative approach. Qualitative research is research that aims to understand the phenomenon of what is experienced by research subjects. For example, behavior, perceptions, views, motivation and daily actions. Thus this research has the aim of conducting library training for library staff in Labuhanbatu Regency.

In this study the authors used a type of field research, namely research that collected field data (research location). In this study, library training was conducted for the Head of Library, Library Personnel and Prospective Head of School Library in Labuhanbatu Regency which was held on May 06, 2023 to May 12, 2023 at the Library and Archives Office of Labuhanbatu Regency.

The selection of the research method was carried out with an in-depth understanding of the problem and an objective search of the problem under study. This method approach is considered relevant to the problem under study to obtain accurate data and information about the ability of library staff to absorb training materials.

The research method is a series of ways or activities of conducting research based on basic assumptions, philosophical views, questions and issues faced in research. The method used in this research is the Research and Development Method or Research & Development (R&D). Research and development is a research method used to produce certain products and test the

effectiveness of these products according to Halaskova et al. (2020). Testing the effectiveness of the product means that the product already exists, and researchers test the validity of the product. Developing products in the form of improving existing products, so that they become more practical, effective, and efficient (Sugiyono, 2015).

The R&D method that will be developed by researchers with stages adapted to the time available, the capabilities possessed, and the needs in the study, but does not reduce the characteristics and essentialization of R&D data with the following stages: (1) Preliminary Study; (2) Development Stage; (3) Product Designation.

In general, the research stages in the R&D process are as follows:

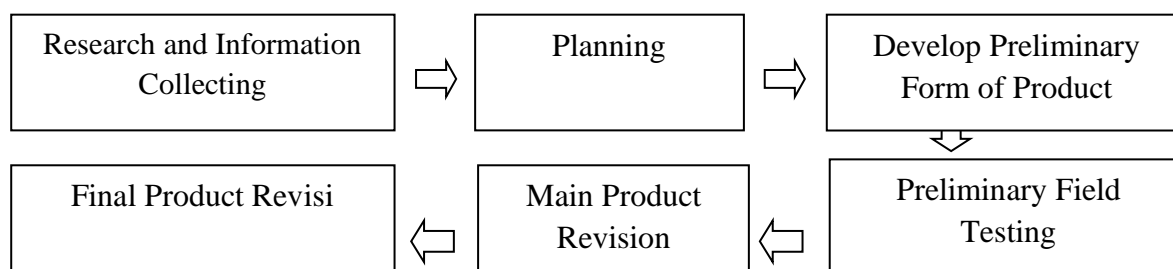


Figure 1. Research & Development (R&D)

Source: Borg & Gall, in Maydiantoro, 2019)

According to Richey in Sugiono (2015), R&D research has 4 (four) levels seen from the testing process, namely:

First Level

Researchers conduct research to produce designs, but do not proceed with making products and testing them externally.

Second Level

Researchers do not conduct research, but directly test existing products.

Third Level

Researchers conduct research to develop existing products, make products and test the effectiveness of these products internally and externally.

Fourth Level

Researchers conduct research to create new products, make products and test the effectiveness of these products.

According to Borg and Gall emphasized that when a research and development is costly, researchers can minimize the scope of development by limiting it to only a few steps of the research and development cycle.

Results and Discussion

The training used is Research and Development (R&D) design of the development process of the training management model for managing web-based school library information systems in Labuhanbatu Regency. Web-based school library information system management training consisting of lesson plans, training materials, applications, learning videos, learning evaluations 7 (seven) types of questions contained in a web-based library training manual (Sidauruk et al., 2023).

This research is a research on the development of a web-based library information system management training management model in Labuhanbatu Regency. So as to produce products in the field of web-based libraries with a library information system management training management model (Supriati & Supriatna, 2023). This research was carried out by starting the initial design with training through theoretical processes and empirical studies by analyzing the results of input from parapractitioners, conducting interviews with various parties to provide input so that the training model can be developed (Liao et al., 2023).

Human Resource Development Library Information System Management

Library heads and library staff at SMA / SMK schools in labuhanbatu learn by themselves to manage the library through discussions with fellow library heads and learning through seeing you to be. The need for library management management is through training in the management of web-based school library information systems for library heads, library staff and prospective school library heads.

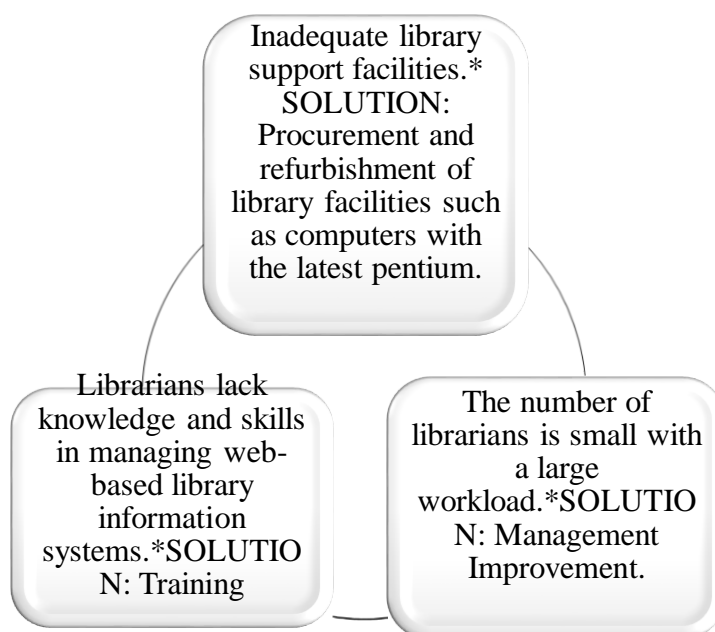


Figure 2. Library management management is through training in the management of web-based school library

Next, we analyzed the extent to which the needs of the Head of Library, Library Staff and Prospective Head of School Library for the training developed. This development is a solution in meeting the knowledge needs in managing a web-based school library management system (Mulyana et al., 2023). The data used came from interviews and questionnaires distributed to the trainees. The results obtained are presented in table 1 If you refer to the table, it is important to develop a training design to overcome existing problems and limitations.

Table 1. managing a web-based school library management system

Actual Performance	Expected Performance	Main Causes
There are several problems that occur in school libraries where library management is still manual.	Manual use of the library can be done well.	Lack of professional staff in managing and less efficient and effective in managing the library manually.
Web-based libraries have not been optimally implemented and used.	Librarians are able to operate a web-based library.	Some librarians have never received training in managing web-based school library information systems.

Conclusion	Librarians need training in managing web-based library information systems, so that web libraries can be used as a learning resource for students and the community.	
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Web-based Library Information System Management Training Development Model.

In the design activities, what was done was to formulate research objectives, training strategies, and evaluation of research results. Design activities begin with analyzing the competency map of trainees as a reference in formulating general and specific instructional objectives (Schleiss et al., 2023). The competency map analysis formulated adapts to the stages of training management, namely planning, organizing, directing, evaluating. By using the Research and Development (R&D) method used to validate and develop products so that they are more practical, effective and efficient.

In designing the training outcome assessment tool, it starts with formulating a grid based on general and specific instructional objectives, after which it is formed into a training outcome assessment tool. The assessment tools to be developed aim to measure competencies in the cognitive and psychomotor taxonomy areas, namely in the form of performance tests.

The performance test was used to measure the success of the participants' task implementation after attending the training series. The performance test consisted of 30 questions with a total score of 150, with the assessment using a rating scale with the highest score of 5 for very good and 1 for less good. There were 6 training participants with a total score of 900. The next step after designing the lattice of training outcome assessment tools is to design a training strategy. The design of the training strategy is based on the results obtained from the instructional analysis that has been carried out, by looking at the results of the needs analysis and performance analysis that have been carried out in the previous stage. A training strategy is defined as a whole series of learning activities used to deliver training content or materials. The application of the training strategy that has been designed will facilitate training program participants to achieve the competencies that have been previously determined.

The designed training strategy consists of several activities with activities that include:

Introduction Stage

Consists of a pre-test, delivery of a brief description, delivery of relevance and benefits, and delivery of specific instructional objectives.

Presentation Stage

Consists of conveying descriptions, conveying summaries, and conveying relevant concepts.

Closing Stage

Consists of formative tests and feedback and material conclusions.

The training strategy that was designed also included several things, namely:

Content or material outline

This is an overview of the material to be delivered.

Methods in delivering training materials

The methods chosen are lecture, brainstorming, discussion, and stimulation. Because all of these methods are considered suitable for the characteristics of prospective trainees: (a) Media and tools needed to deliver the training materials; (b) The duration or time needed to deliver the various activities during the training.

Next, summarize the whole set of designs by formulating a training syllabus. The syllabus is the instructor's/trainer's plan in developing the training process for one training item. At the development stage, the researcher develops training materials in accordance with the characteristics of the training participants which will be used as a means of delivering the content or material of the training program from the instructor or trainer to the participants. The development of training materials is based on the principles of utilization and production of learning materials and media.

The training materials developed are printed media training packages consisting of handouts, training syllabus books, and training manuals for instructors. The training handout developed covers the content of the training material, namely web-based school library information system management material. Meanwhile, the training syllabus book consists of: (a) Background of the training; (b) Training Objectives. (c) Training Competency Map. (d) Trainers/Instructors/Facilitators. (e) Training Participants. (f) Length of Training. (g) List of Training Subjects. (h) Training Curriculum. (i) Training Strategy. (j) Training Evaluation Test Grid. (k) Evaluation Test (Pre Test and Post Test).

The content of the training manual consists of: (a) Background. (b) Training Objectives. (c) Training Participants. (d) Time and Place of Training. (e) Competence of Trainees. (f) Training Materials and Approach. (g) Training Scenario. (h) Training Schedule. (i) Training Strategy.

Implementation of Web-based School Library Information System Management

In the Labuhanbatu library and archives office in collaboration with the Labuhanbatu district education and sports office, modern library training and library improvement training have been held. The library office held library training in Labuhanbatu in 2001 and 2008 in public and private elementary, junior high, high school, vocational schools in Labuhanbatu.

Table 2. library training in Labuhanbatu in 2001 and 2008

Library Training Participants		Job	Signature
Name	School		
Ongku Desix Harahap	Sdn 28 West Bilah	Teacher	
Isiani Pradani	Sdn 02 Rantau Selatan	Library Staff	
Feri Hadiyana	Sdn 08 Panai Hulu	Teacher	
Surya Ningrat	Sdn 14 Panai Tengah	Library Staff	
Elma Capah	Sdn 14 Rantau Utara	Library Staff	

Evaluation Stage

The evaluation stage is carried out to assess the extent to which the web-based library management information system has successfully achieved its objectives in web-based library training at SMA / SMK schools in Labuhanbatu Regency. At this stage, it was carried out widely by involving a research sample of 6 web-based library training participants in Labuhanbatu Regency. The description of the data processing results is as follows:

Broad Field Trial Results

The results of the broad field trial are the actual implementation of web-based library training carried out after the revision process of the operational field trial stage. The implementation of the training was carried out for 6 days starting on November 20-25, 2023. The broad field trial was used to determine the effectiveness of the development of a training management model for managing web-based school library information systems in Labuhanbatu Regency.

The broad field trial was carried out by measuring the pre-test and post-test scores of the development of a web-based school information system management training model. The pre-

test and post-test questions are the same questions, used to test effectiveness by looking at the difference in significant academic management improvement between before and after training in using a web-based school library information system with a questionnaire consisting of 15 multiple choice questions.

Normality Test

The Normality Test aims to determine whether the research data is normally distributed or not. In parametric statistical analysis, normally distributed data is an absolute requirement that must be met. If it is not normally distributed, then testing the research hypothesis can be done using a non-parametric statistical analysis approach.

According to (Santoso, 2010), states that the distribution is normal (symmetrical) in the Shapiro Wilk Test, if the Sig. value is greater than 0.05.

The Shapiro Wilk Normality Test output table found in the Tests of Normality table is as follows:

Table 3. Tests of Normality

Test		Kolmogorov-Smirnov ^a			Shapiro- Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Rating result	Pre Test	.293	6	.117	.915	6	.473
	Post Test	.254	6	.200	.866	6	.212

*. This a lower bound of the true significance

a. Lilliefors significance Correction

Based on the output table above, it is known that the df (degree of freedom) value for the Pre Test and Post Test is 6. This means that the number of data samples for each group is less than 50. So the use of the Shapiro Wilk technique to detect data normality in this study is appropriate. If the df value is more than 50, then normality decision making can be done based on the results in the Kolmogorov-Smirnov table.

From the output table above, the Sig. value for the Pre Test is 0.473 and the Sig. value for the Post Test is 0.212. Because the Sig. value for both tests is > 0.05, based on the Shapiro Wilk Normality Test it can be concluded that the results of the assessment of knowledge of school library management in Labuhanbatu Regency in the Pre Test and Post Test are normally distributed.

Paired Sample T-Test Results

The Paired Sample T Test is part of a comparative hypothesis test or comparison test using interval or ratio scaled data (quantitative data). The Paired Sample T Test aims to determine whether there is an average difference in two samples (two groups) that are interconnected.

Table 4. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre Test	4.67	6	1.033	.422
	Post Test	11.17	6	.753	.307

In the Paired Samples Statistics output table, the average (mean) of the Pre Test assessment results is 4.67. Meanwhile, the average result of the Post Test assessment is 11.17. Because the average value of the assessment results on the Pre Test $4.67 < \text{Post Test } 11.17$, then descriptively there is a difference in the average assessment results between the Pre Test and Post Test results. To prove whether the difference is really real (significant) or not, it is necessary to test the Paired Sample T Test.

Table 5. Paired Samples Correlations

		N	Correlation	.Sig
Pair 1	Pre Test & Post Test	6	.086	.872

The Paired Samples Correlations table shows the results of the correlation or relationship test between the Pre Test variable and the Post Test variable. Based on the results of the Paired Samples Correlations Test, the correlation coefficient (Correlation) value is 0.086 with a significant value (Sig.) of 0.872. Because the value of Sig. 0.872 > Probability 0.05, then there is no relationship between the Pre Test variable and the Post Test variable.

Research Hypothesis and decision-making guidelines in the Paired Sample T Test:

H_o = There is no average difference between the assessment results of the Pre Test and Post Test (There is no effect of developing a Web-based School Library Information System Management Training Management Model in Labuhanbatu Regency).

H_a = There is an average difference between the results of the Pre Test and Post Test assessments (There is an effect of the development of a Web-based School Library Information System Management Training Management Model in Labuhanbatu Regency).

According to (Santoso, 2010), the decision-making guidelines in the Paired Sample T Test are based on the significant value (Sig.) with the results of the SPSS output as follows: (1) If the Sig value. (2-tailed) < 0.05, then H_o is rejected and H_a is accepted; (2) If the value of Sig. (2-tailed) > 0.05, then H_o is accepted and H_a is rejected.

Table 6. Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre Test-Post Test	-6.500	1.225	.500	-7,785	-5.215	-13.000	5	.000

Based on the Paired Samples Test output table, it is known that the Sig. (2-tailed) of 0.000 < 0.05, then H_o is rejected and H_a is accepted. So it can be concluded that there is an average difference between the results of the Pre Test assessment and the Post Test (There is an Effect of the Development of a Web-Based School Library Information System Management Training Management Model in Labuhanbatu Regency).

From the Paired Samples Test output table, it is known that the Mean Paired Differences value is -6,500. This value shows the difference between the average Pre Test assessment results (4,670) and the average Post Test assessment results (11,170) of -6,500 and the difference between -7,785 to -5,215 (95% Confidence Interval of the Difference Lower and Upper).

In addition to comparing the significant value (Sig.) with a probability of 0.05, there are other ways that can be done for hypothesis testing in the Paired Sample T Test, namely by comparing the t_{count} value with the t_{table} with the basis for decision making as follows: (1) If the t_{count} > t_{table} value, then H_o is rejected and H_a is accepted; (2) If the t_{count} value < t_{table}, then H_o is accepted and H_a is rejected.

Based on the Paired Samples Test output table, it is known that the t_{count} is negative, which is equal to -13.000. t_{count} is negative because the average value of the Pre Test assessment results is lower than the average value of the Post Test assessment results. In this case a negative t_{hitung} value can be positive. So that the t_{count} value becomes 13.000.

The t-table value is obtained based on the df (degree of freedom) value or degree of freedom and a significant value ($\alpha/2$). From the Paired Samples Test output table, it is known that the df value is 5 and the value (0.05/2) is equal to 0.025. Then the t-table value is 2.571.

Table 7. t-table

Distribution of Value Ttable								
	Pr	0.25	0.10	0.05	0.025	0.01	0.005	0.001
df		0.50	0.20	0.10	0.050	0.02	0.010	0.002
	1	1.00000	3.07768	6.31375	12.70620	31.82052	63.65674	318.30884
	2	0.81650	1.88562	2.91999	4.30265	6.96456	9.92484	22.32712
	3	0.76489	1.63774	2.35336	3.18245	4.54070	5.84091	10.21453
	4	0.74070	1.53321	2.13185	2.77645	3.74695	4.60409	7.17318
	5	0.72669	1.47588	2.01505	2.57058	3.36493	4.03214	5.89343
	6	0.71756	1.43976	1.94318	2.44691	3.14267	3.70743	5.20763
	7	0.71114	1.41492	1.89458	2.36462	2.99795	3.49948	4.78529

Because the value of $t_{hitung} > t_{tabel}$ is $13.000 > 2.571$, then H_0 is rejected and H_a is accepted. So it can be concluded that there is an average difference between the results of the Pre Test assessment and the Post Test (There is an influence on the development of a Web-based School Library Information System Management Training Management Model in Labuhanbatu Regency).

N-Gain Score Test (Normalized Gain Score Test)

The N-Gain Score test is used to determine the effectiveness of using a method or treatment in one group pre test post test design research (experimental design or pre experimental design) or research using a control group. The N-Gain Score test is done by calculating the difference between the Pre Test and Post Test values. So that it can be seen whether the use of the method used is effective or not. The N-Gain Score formula is as follows:

$$N\ Gain = \frac{Skor\ Post\ Test - Skor\ Pre\ Test}{Skor\ Ideal - Skor\ Pre\ Test}$$

Description:

Ideal Score is the maximum (highest) value that can be obtained.

Table 8. Score Value

Gain Score Division	
N-Gain value	Category
$g > 0,7$	High
$0,3 \leq g \leq 0,7$	Medium
$G < 0,3$	Low

Table 9. Categories Interpretation of N-Gain Effectiveness

Categories Interpretation of N-Gain Effectiveness	
Presented (%)	Interpretation
>40	Ineffective
40 - 55	Less Effective
56 - 75	Quite Effective
>76	Effective

Table 10. Descriptives

NGain_Percentage	Mean		Statistic	Std. Error
			62.6768	3.20355
	95% Confidence Interval	Lower Bound	54.4418	
	for Mean	Upper Bound	70.9118	
	5% Trimmed Mean		62.8227	
	Median		63.3333	
	Variance		61.576	
	Std. Deviation		7.84706	
	Minimum		50.00	
	Maximum		72.73	
	Range		22.73	
	Interquartile Range		10.68	
	Skewness		-.579	.845
	Kurtosis		.514	1.714

Based on the results of the N-Gain Score Test calculation, the average value (mean) of the N-Gain Score is 62.6768 or 62.68% which is included in the Moderately Effective category. With a minimum N-Gain Score value of 50.00% and a maximum of 72.73%. So it can be concluded that the Development of a Web-based School Library Information System Management Training Management Model in Labuhanbatu Regency is quite effective.

The research data are presented in line with the research question, namely how to develop a training model for managing web-based school library information systems in Labuhanbatu Regency. The research data are then discussed using relevant theories and research results.

The needs analysis stage is carried out to find out the gaps that occur in the place of the object of research, and what needs are not met related to the non-optimality of achievement in carrying out tasks, roles, responsibilities, and competencies in managing library management in schools in Labuhanbatu Regency. The analysis stage is carried out to clarify, examine and describe performance gaps by conducting interviews and questionnaires to training participants, namely the Head of Library, Library Staff and Candidate Head of School Library.

In the design activities, what was done was to formulate research objectives, training strategies, and evaluation of research results. Design activities begin with analyzing the competency map of trainees as a reference in formulating general and specific instructional objectives. The competency map analysis formulated adapts to the stages of training management, namely planning, organizing, directing, evaluating. By using the Research and Development (R&D) method used to validate and develop products so that they are more practical, effective, and efficient.

In accordance with the ADDIE model development steps that have been designed previously, and also using the R&D research model, testing is carried out internally. At this stage, the implementation is not carried out explicitly and directly on the implementation of the evaluation, namely testing the materials and syllabus for the training of Head of Library, Library Staff and School Library Head Candidates, so that the training design is validated by experts. This stage consists of product validation by media experts and material experts.

In the expert test, an assessment of several aspects was carried out in order to achieve perfection of the training design. The following are the recapitulation results obtained from the expert test.

Tanle 11. Expert Test

Expert Test	First Assessment	Second Assessment	Average
Material	86,70%	-	86,70%

Media	88,60%	90,00%	89,30%
Average	87,65%	90,00%	

From the recapitulation results obtained from the assessment, there has been a change from the previous training design model product developed as a whole, it can be seen from the expert review aspect, which has a quality that falls into the excellent category.

Based on the recapitulation of the expert test, the material received an average score of 86.70% with a very good interpretation, because the material compiled was considered to have focused on the objectives to be achieved. In terms of media, the average score was 89.30% with a very good interpretation, because both visual and verbal aspects were considered good and proportional. The average development results are very good. The test results obtained show that the training design product is categorized as valid and feasible to proceed to the next stage for testing. This needs to be done to get feedback from users, both from trainers and trainees.

The training design model developed in this research is a web-based school library information system management training in Labuhanbatu Regency. The material presented in this training is web-based school library information system management material. Trainees are expected to have skills in managing web-based school library information systems after attending this training.

The resulting product is a training package consisting of a training syllabus, training guide, and training material handouts. The training syllabus is used to make it easier for participants and institutions that want to organize training to understand the overall picture of the training. The training syllabus consists of: (a) Background of the training. (b) Training Objectives. (c) Training Competency Map. (d) Trainers/Instructors/Facilitators. (e) Training Participants. (f) Length of Training. (g) List of Training Subjects. (h) Training Curriculum. (i) Training Strategy. (j) Training Evaluation Test Grid. (k) Evaluation Test (Pre Test and Post Test).

The training syllabus is organized in a systemic and systematic manner, so that if the steps are followed in order, instructors or trainees will not encounter difficulties in carrying out the training.

Training handouts are printed media used as a medium to facilitate participants in understanding and mastering the competencies in the training material presented. The content of the training handout consists of web-based school library information system management material equipped with exercises, simulations, and evaluation tests so that trainees can learn and practice the training material more optimally.

The advantages of the results of the development of the training design model in this study are: (1) The training is designed according to user needs, so it is considered to be right on target and can achieve training objectives effectively and efficiently; (2) The materials developed in this training refer to the analysis of the needs of the Head of Library, Library Staff and School Library Head Candidates, so that they are right on target and can help users in achieving the training objectives that have been set; (3) Training handouts are equipped with examples or illustrations, exercises, simulations, and evaluation tests (pre test - post test) for each material, so as to measure the achievement of training results after attending the training; (4) A thorough revision has been carried out in accordance with the steps of the development model and the research method chosen so that the resulting product has been tested for validity.

The disadvantages of developing this training design model are: (1) The product developed is only limited to designs that have been tested internally, namely through material expert and media expert tests. So that further external tests (one to one, small group, and field tests) are needed to perfect the development product; (2) The developed materials contain materials for

managing web-based school library information systems that are in accordance with the needs. Therefore, the development of materials in this training can be continued.

The training media developed in the form of printed media and practiced by trainees with additional supporting media trained by professional personnel. So it needs to be developed further so that it can train skills outside the training venue.

Conclusion

Based on the results of research and development, the results of data analysis and discussion that have been carried out, several conclusions are obtained, namely: The training design for managing web-based school library information systems in Labuhanbatu Regency developed was rated very well by experts. This is based on the development process that has followed the flow and development procedures, as well as the development results that have gone through the formative evaluation stage from material experts and media experts. Based on the recapitulation of the expert test, the material received an average score of 86.70% with a very good interpretation, because the material compiled was considered to have focused on the objectives to be achieved. In terms of media, the average score was 89.30% with a very good interpretation, because both visual and verbal aspects were considered good and proportional. Based on the evaluation results, this training design model obtained an average assessment from experts classified as very good criteria based on a predetermined rating scale. So that the final product developed is considered internally valid and can be implemented. The questionnaire test of 6 trainees consisting of the Head of Library, Library Staff and Candidate Head of School Library after the training was conducted obtained an assessment of the results of the development test on the implementation of training, training models, aspects of training materials, aspects of library training material presentation, discussion / question and answer, group work practice and library web aspects obtained a score of 685 with a percentage of 76.11%.

The Sig. value on the Pre Test is 0.473 and the Sig. value on the Post Test is 0.212. Because the Sig. value for both tests is > 0.05 , based on the Shapiro Wilk Normality Test it can be concluded that the results of the assessment of knowledge of school library management in Labuhanbatu Regency in the Pre Test and Post Test are normally distributed. Because the value of $t_{\text{count}} > t_{\text{table}}$ is $13.000 > 2.571$, then H_0 is rejected and H_a is accepted. So it can be concluded that there is an average difference between the results of the Pre Test and Post Test assessments. The N-Gain Score test obtained an average value (mean) N-Gain Score of 62.6768 or 62.68% which is included in the Moderately Effective category. With a minimum N-Gain Score value of 50.00% and a maximum of 72.73%. So it can be concluded that the Development of a Web-Based School Library Information System Management Training Management Model in Labuhanbatu Regency is quite effective.

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