Against Media iLearning System Implementation Quality Assessment and Student Learning Effectiveness

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Abstract

Every educator wants an effective system of learning, class with communicative and active students accompanied by a quality assessment. In the era of modern learning, e-learning system utilized by school institutions as a learning medium that can control the assessment quality and learning effectiveness of student. The current system is using iLearning Media, the implementation process is done there are still shortcomings in terms of interest and involvement of the student, it is necessary to redesign the system so that the effectiveness of learning to do with intelligence. This research aims to harness and develop the current system in order to know the assessment quality and learning effectiveness. The methods conducted in this research are OLAP method by utilizing datamart and requirement user analysis. The retrieval of data by distributing a questionnaire to be tested for validity and reliability. Further from this research will determine how much interest students and anyone who is active in the following subjects, then produce valid data on the implementation of the system to the assessment quality and learning effectiveness.

Keywords: Quality Assessment, Learning Effectiveness, OLAP, Datamart

Introduction

Development of information systems is a very strategic decision, because it is closely related to fast or not information that would be obtained by the institution. Besides involving considerable investment, there are many other factors that must be considered. The complexity of the system is not a guarantee of performance improvement, even if it could be counter-productive in the stage of implementation was not supported by the readiness of the Human Resources (HR) owned by that agency.

The development of information technology requires a variety of contributing factors, whether it was to see the application of a system of information and participation of the user. In building applications needed to see a simple and attractive to visitors so that user participation is expected to support the success of the use of information technology to produce the level of satisfaction of the users of the application providers and institutions.

The learning process should be planned so that the learning is going well and achieve the expected results. Each planning with regard to thinking about what to do. Planning teaching and learning program estimates regarding actions to be taken when implementing learning. Fill in the planning of organizing and establishing the elements of learning, such as goals, materials or contents, methods, tools and resources as well as ratings [1].

Evaluation is a decision based on measurements and standard criteria. Measurement and evaluation are two sustainable activities. The evaluation was done after the measurement and evaluation of decisions made based on the measurement results. Decision-making is done by comparing the measurement results with the specified criteria. Therefore, there are two activities in the evaluation is to measure and make decisions by comparing the measurement results with the criteria. Through educational programs, a new assessment can be done after the measurement of various components of the education program. Evaluation is expected to be a feedback for the program has been executed (feedback) and provide the information necessary to run the program in the future [2].

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Salem Alkhalaf et.al.[3] on journal Procedia Social and Behavioral Sciences menjelaskan bahwa e-Learning systems are a technological development that have reformed and restructured the delivery and interaction of students and teachers with course materials and related resources. Guo-Heng Luo et.al. [4] in his research describes the benefits from the use e-Learning, are to overcome physical access limitations, certain institutions have leveraged the Internet to facilitate teaching international trade, building e-learning systems that include teaching videos and slides. Learners can watch the teaching videos anywhere and at any time through the Internet. They can also download and study slides and submit homework through the system. This teaching method is similar to the traditional teaching method, allowing learners to conveniently study international trade by using the Internet.

The level of participation and user satisfaction will influence the successful implementation of the system, where the user participation can improve system performance information. In practice there should be a survey or research that can be known deficiencies in its implementation system and the satisfaction of students and teachers in using the information system. iLearning media is a media that provides learning solutions by leveraging Information Communication and Technology (ICT) so that learning becomes more fun because it has a concept to learn, play, pray and work. Therefore it takes a measurement system for the implementation of iLearning Media in order to know the validity of the system on the quality and effectiveness of learning assessment of students who belong to the object of the research.

Problems

Enthusiastic learners as either the student or the student towards the implementation of e-learning in the learning process of an obstacle in the development of e-learning applications. It was also based on several factors, of which many students who do not want to know the development of the Internet, the high cost of internet use for the size of the pockets of students, and other underlying factors. In addition there are problems that can be identified in the design and implementation of information systems on the manufacturing information system so attractive to users, whether the design of the system with a web-based application system, as well as with a desktop-based application system.

Then other problems that give sense to the teachers in order to implement this application, thus achieving educational goals is conveyed properly. Then socialization of the students in order to use this application with high enthusiasm, so that students get the knowledge to perfection. The other thing was to provide facilities to teachers and students to interact about the subject matter outside of school hours.

The teacher can prepare materials and plan the learning process, teachers can deliver material so that students can not be separated from monitoring the management class, and the teacher can control students' inability to access the system. In addition, the Vocational High School students is usually synonymous with job training or employment practices of the industry. Therefore, how can students who are doing these practices can find out the latest information and lessons and students can deal directly with other fellow students and teachers, if experienced problems either in practice or teaching.

Another issue arising is how to know the students who are active in following the lessons so that they can measure the effectiveness of learning iLearning, how to get the degree of user satisfaction information systems with empirical evidence, how to measure the validity of the quality assessment and learning effectiveness of the system that has been built and the eventually to get results measurement quality assessment and learning effectiveness of the system by empirical evidence.

Another issue is how manfaatkah iLearning systems to the students' knowledge of the subject matter, how to get the learning effectiveness of the system by empirical evidence and how to get results from the participation of students of the system that has been built with empirical evidence.

Of the problems that have been identified, there are three issues that are limited to minimize the time and costs in this study. The problem is how to measure the quality and effectiveness of student learning assessment in the implementation of iLearning Media system with the object of research in SMK AL Fattah within one semester. The information system is applied or used for the interaction between teachers and students in the learning process and to find out how the interest and activity of users in the use of the information system applications. Implement the system and create surveys in order to know the size of the quality assessment and learning effectiveness in all aspects of existing interests in Media iLearning systems by students. The empirical evidence is needed in measuring the quality of the assessment and the effectiveness of student learning in Media iLearning systems implementation in SMK AL Fattah.

The vision and mission are achieved by the establishment of the school was the main target of SMK AL Fattah, so it's also related to the learning process both conventional and modern way. Therefore, in the decision
making the design, analysis and implementation of this Media iLearning application system, it must be in accordance with one of the main aim of school education.

Of the background issues that had previously restricted, then there are three formulation of the problem in detail that emerged in this study, the first is an information system that is used for interaction between teachers and students in the learning process and to find out how the interest and activity of users in wear applications the information system is based on the data available. So that problems arise, namely, how antusiaskah students who are active in following the lessons so that they can measure the effectiveness of learning iLearning. Both of implementing the system and make a survey in order to know the size of the quality assessment and learning effectiveness in all aspects of existing interests in Media iLearning systems by students. So that problems arise, namely, how to measure the results of the quality assessment of the system by empirical evidence. Third is required empirical evidence to measure the quality of the assessment and the effectiveness of student learning in Media iLearning systems implementation in SMK AL Fattah. So that problems arise, namely, how to measure the effectiveness of learning outcomes from the system by empirical evidence.

Literature Review

Based on the concept that was built in this study is an implementation of a system that has been built before, then this study is very relevant to the design of the system itself. The studies that have been done before the relevant, among other things:

1. Guo-Heng Luo, Eric Zhi-Feng Liu, Hung-Wei Kuo, Shyan-Ming Yuan (2014) on research "Design and Implementation of a Simulation-Based Learning System for International Trade". In the traditional instructional method used in international trade, teachers provide knowledge to learners by lecturing using slides and setting assignments; however, these methods merely deliver international trade knowledge rather than facilitating student development of relevant skills. To solve these problems, we proposed a simulation-based learning system for international trade, combining international trade-process simulation and business letter writing. We investigated learner opinions toward the system and the quality of business letters by using quantitative and qualitative analyses. Regarding the results, learners perceived that the proposed system improved their knowledge of international trade and business English. [4]

2. Salem Alkhalaf, Steve Drew, Rayed Alghamdi, Osama Alfarraj (2012) on research "E-learning system on higher education institutions in KSA: attitudes and perceptions of faculty members". This paper presents findings from a study evaluating eLearning systems in the Kingdom of Saudi Arabia (KSA). E-Learning Systems are a technological development that have reformed and restructured the delivery and interaction of students and teachers with course materials and related resources. E-Learning systems have been widely used in developed countries and have recently become more popular in many developing countries. To date, however, little attention has been paid to the issue of measuring the impact of eLearning on academic staff at higher educational institutions in the Kingdom of Saudi Arabia. Responding to this gap in the literature, this study investigates the impact of e-Learning systems in higher education institutions in this context. A survey based on the IS Success/Impact Measurement Framework was executed in a sample population of faculty members using e-Learning in two top universities in the KSA. The findings of this study show positive academics' attitudes towards eLearning systems in higher education, helping faculty members to improve their job performance, and educational organizations to provide better and new products and services to users.[3]

3. L. Jegatha Deborah, R. Baskaran, A. Kannan (2012) on research "Learning styles assessment and theoretical origin in an E-learning scenario: a survey". The performance of the learners in E-learning environments is greatly influenced by the nature of the posted E-learning contents. In such a scenario, the performance of the learners can be enhanced by posting the suitable E-learning contents to the learners based on their learning styles. Hence, it is very essential to have a clear knowledge about various learning styles in order to predict the learning styles of different learners in E-learning environments. However, predicting the learning styles needs complete knowledge about the learners past and present characteristics. Since the knowledge available about learners is uncertain, it can be resolved through the use of Fuzzy rules which can handle uncertainty effectively. The core objective of this survey paper is to outline the working of the existing learning style models and the metrics used to evaluate them. Based on the available models, this paper identifies Ficker-Silverman learning style model as the suitable model for E-learning and suggests the use of Fuzzy rules to handle uncertainty in learning style prediction so that it can enhance the performance of the E-learning system.[5]

4. Shahid Farid, Rodina Ahmad, Mujahid Alam (2015) on research "A Hierarchical Model For E-Learning Implementation Challenges Using AHP". E-learning is becoming the new paradigm of learning and training, especially in Higher Educational Institutions (HEIs) around the globe. HEIs in developing countries are struggling to shift to this new paradigm that would facilitate accommodating increasingly more learners in their own places and with their own time constraint choices. E-learning is not gaining as much attention in developing countries as anticipated in the last decade. Moreover, very little work has been done in this area of research in developing countries like Pakistan. This study contributes to formulating a hierarchical model of the challenges affecting the integration of information and communication technology in Pakistan's HEIs. This study also contributes devised
strategies and recommendations to overcome challenges by providing a roadmap for the implementation of e-learning systems in developing countries. An empirical-based research method was employed, with two surveys conducted on e-learning experts from different public universities. The factor analysis method was used to categorize challenges, while the Analytical Hierarchy Process (AHP) method was utilized to prioritize the identified challenges. The findings revealed 17 critical challenges, which were then categorized into 5 dimensions. The study's implications in terms of research and practice, limitations and future research directions are also discussed.\[6\]

5. Matjaz Debevec, Zoran Stjepanovic and Andreas Holzinger (2014) on research "Development and evaluation of an e-learning course for deaf and hard of hearing based on the advanced Adapted Pedagogical Index method". Web-based and adapted e-learning materials provide alternative methods of learning to those used in a traditional classroom. Within the study described in this article, deaf and hard of hearing people used an adaptive e-learning environment to improve their computer literacy. This environment included streaming video with sign language interpreter video and subtitles. The courses were based on the learning management system Moodle, which also includes sign language streaming videos and subtitles. A different approach is required when adapting e-learning courses for the deaf and hard of hearing; new guidelines must be developed concerning the loading and display of video material. This is shown in the example of the e-learning course, ECDL (European Computer Driving Licence). The usability of the e-learning course is analyzed and confirmed using two methods: first, the Software Usability Measurement Inventory (SUMI) evaluation method, and second, the Adapted Pedagogical Index (AdaPI), which was developed as part of this study, and gives an index to measure the pedagogical effectiveness of e-learning courses adapted for people with disabilities. With 116 participants, of whom 22 are deaf or hard of hearing, the e-learning course for the target group has been found suitable and appropriate according to both evaluation methods.\[7\]

6. Yusminar Yunus, Juhana Salim (2013) on research "E-Learning Evaluation in Malaysian Public Sector from The Pedagogical Perspective: Towards E-Learning Effectiveness". E-learning has emerged as an attractive alternative for the delivery of teaching and learning/training. Nevertheless, most e-learning focused more on technical issues whereby the pedagogical perspective is not given much emphasis. The lack of emphasis on pedagogical perspective will affect the quality and effectiveness of e-learning. The purpose of this paper is to evaluate the effectiveness of e-learning in the public sector from the pedagogical perspectives and to identify the evaluation criteria which contribute to the effectiveness of e-learning. This paper attempts to develop a model for evaluating e-learning in the public sector. Mixed methods was chosen as the data collection technique. Quantitative data was gathered from the questionnaires, whereas qualitative data was gathered from interviews and case study. The overall findings showed that e-Training is effective from pedagogical perspectives, whereas EPSA is moderately effective. The results also showed that eleven evaluation criteria contributes to e-learning effectiveness namely individual motivation & attitude, individual learning style, theory-objective-learning outcome & knowledge transfer, interactivity & content, structure design, interface design, multimedia design, instruction and help, learner-facilitator interaction, learner-learner interaction, and learner-content interaction. An 'E-learning Evaluation Model' was also developed which comprised of 4 dimensions namely individual, learning, content and interaction.\[8\]

7. Eva Martínez-Caro (2009) on research "Factors Affecting Effectiveness in E-Learning: An Analysis in Production Management Courses". E-learning may help to open up new channels for the traditional teaching of engineering but there are many questions about what makes e-learning an effective and satisfactory method, in particular, in the field of industrial engineering. This article evaluates the potential factors affecting the effectiveness of engineering e-learning courses by applying structural equation modeling in a sample of students of multiple production management courses for industrial engineering students. This way, the gaps and methodological weaknesses detected in prior studies has been avoided. The findings of this study suggest that interaction is key to getting successful outcomes, that the right mixture of human and technology must be found, that it is crucial to teach students to learn online and that special attention must be directed to non-traditional students who have the additional pressure of resolving time conflicts between e-learning, work and/or family life. These findings can help engineering colleges and schools offering e-learning courses to learn more about how to enhance students' success.\[9\]

8. Soraya Benchicou, Mohamed Aichouni and Driss Nehari (2010) on research "E-learning in engineering education: a theoretical and empirical study of the Algerian higher education institution". Technology-mediated education or e-learning is growing globally both in scale and delivery capacity due to the large diffusion of the ubiquitous Information and Communication Technologies (ICT) in general and the web technologies in particular. This statement has not yet been fully supported by research, especially in developing countries such as Algeria. The purpose of this paper was to identify directions for addressing the needs of academics in higher education institutions in Algeria in order to adopt the e-learning approach as a strategy to improve quality of education. The paper will report results of an empirical study that measures the readiness of the Algerian higher education institutions towards the implementation of ICT in the educational process and the attitudes of faculty members towards the application of the e-learning approach in engineering education. Three main objectives were targeted, namely: (a) to provide an initial evaluation of faculty members' attitudes and perceptions towards web-based education; (b) reporting on their perceived requirements for implementing e-learning in university courses; (c) providing an initial input for a collaborative process of developing an institutional strategy for e-learning.
Statistical analysis of the survey results indicates that the Algerian higher education institution, which adopted the Licence - Master and Doctorate educational system, is facing a big challenge to take advantage of emerging technological innovations and the advent of e-learning to further develop its teaching programmes and to enhance the quality of education in engineering fields. The successful implementation of this modern approach is shown to depend largely on a set of critical success factors that would include: 1. The extent to which the institution will adopt a formal and official e-learning strategy; 2. The extent to which faculty members will adhere and adopt this strategy and develop ownership of the various measures in the context of their teaching and research responsibilities; 3. The extent to which the university will offer adequate support in terms of training, software platform administration, online resource development and impact monitoring and assessment.[10]

However, it can be concluded also that no researcher specifically discussing the implementation of iLearning systems Media used to measure the quality and effectiveness of learning assessment.

Solution to Problem

In carrying out the research, methods and research design must be in accordance with the purposes and research problems. The research method chosen should be relevant to the issues to be submitted and should also be considered the basis of the selection methods used in the study. This study will describe the shape of the activity or activities of the learning process to determine the quality and effectiveness of learning assessment of students in system implementations iLearning Media. The data obtained from a number of respondents using a questionnaire to students who have to implement the learning process with iLearning Media.

The relationship between the sample to the population is the analysis of sample data to produce sample statistics used to estimate population parameters. In addition, the parameter is a numerical description of the measure that is calculated from measurements of the population. Sample statistics are used to make inferences about the population parameter [11].

The population is a collection / total member of the research object and meets the specific criteria set out in the study so that it can be concluded and the known data from the study. In this study, which will be the population is students of SMK AL Fattah. Samples are part of the existing population. It includes a number of selected members of the population that has been set. The respondents in this study were students of SMK AL Fattah with the Department of Computer Engineering and Networks Academic Year 2015-2016.

The instrument of collecting data in this research is by using a questionnaire. The questionnaire contains questions relating to the structured research problems in the implementation of iLearning systems Media. This questionnaire will be distributed to the respondents or object to become a research center that the students of SMK AL Fattah with the Department of Computer Engineering and Networks Academic Year 2015-2016.

A variable is something that becomes the object or often also referred to as contributing factors in the event or phenomenon to be studied. In this study, there are two variables, each of these variables are part of the independent variable (Independent Variable) and the dependent variable (Dependent Variable). For independent variables in this study is the Quality Assessment, while the dependent variable is the Effectiveness of Learning.

The questionnaire will be designed in survey research will use a Likert-type scale. According Sudaryono et.al. [12] Likert Scale used to measure attitudes, opinions and perceptions of a person or group of events or social phenomena. In the study of social phenomena specifically assigned by the researcher, hereinafter referred to as the study variables. By using a Likert scale, then the variable to be measured are translated into dimensions, the dimensions are translated into sub-sub-variable variable then translated again into indicators that can be measured. Finally measurable indicators that can be used as a starting point to create an item instrument in the form of questions or statements that need to be answered by the respondents.

In the variable quality of assessment consists of three dimensions, namely Accurate, Readiness, and Timeliness. Then for the indicator consists of ten indicators, namely Accurate Assist, Accurate Convenient, Accurate Properly, Readiness Assist, Readiness Convenient, Readiness Performance, Readiness Properly, Timeliness Communication, Timeliness Convenient, Timeliness Performance.

While in the variable Effectiveness of Learning consists of three dimensions, namely Accurate, Readiness, and Timeliness. Then for the indicator consists of ten indicators, namely Accurate Performance, Accurate Properly, Readiness Assist, Readiness Convenient, Readiness Performance, Readiness Properly, Timeliness Communication, Communication Timeliness, Timeliness Convenient, Timeliness Performance. Data required in this study will be taken through a questionnaire given to selected respondents. The lattice questionnaire will be presented in Table 1 below:
Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Dimension</th>
<th>Indicator</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Assessment</td>
<td></td>
<td>Accurate</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Convenient</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Properly</td>
<td>6, 7</td>
</tr>
<tr>
<td>Readiness</td>
<td></td>
<td>Accurate</td>
<td>11, 17, 19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Convenient</td>
<td>10, 15, 16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Performance</td>
<td>9, 12, 14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Properly</td>
<td>18, 20</td>
</tr>
<tr>
<td>Timeliness</td>
<td></td>
<td>Communication</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Convenient</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Performance</td>
<td>1, 4, 13</td>
</tr>
<tr>
<td>Effectivities of Learning</td>
<td></td>
<td>Accurate</td>
<td>31, 32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Performance</td>
<td>24, 33, 35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Properly</td>
<td>27, 34, 36, 37</td>
</tr>
<tr>
<td>Readiness</td>
<td></td>
<td>Accurate</td>
<td>27, 34, 36, 37</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Convenient</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Performance</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Properly</td>
<td>29, 38, 40</td>
</tr>
<tr>
<td>Timeliness</td>
<td></td>
<td>Communication</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Communication</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Convenient</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Performance</td>
<td>22, 25, 26</td>
</tr>
</tbody>
</table>

Implementation

The system used in this study is part of the Media iLearning system which is based on a CMS (Content Management System) of WordPress. WordPress is an open source application (open source) which is most popularly used as an engine blog (blog engine). WordPress is built using the PHP programming language and has a database of DBMS MySQL. PHP and MySQL is open source software (open source software). This is evident in Figure 1 below:

![Figure 1. Dashboard System iLearning Media](image-url)
This study uses the Media iLearning system so that some of the features already available in it, including in terms of design and the design of the existing system. Therefore, this study only emphasizes the system implementation process iLearning Media at SMK AL Fattah. Although in order Waterfall on the System Development Life Cycle (SDLC) itself that the implementation of the system is the third stage after the system analysis and system design, turned out in a series of implementation process conducted in SMK AL Fattah there are still shortcomings in terms of interest and involvement of the student so that the effectiveness of learning can be managed in a way that intelligence. Therefore, in accordance with the stages of the waterfall on the System Development Life Cycle (SDLC). Then it took the development or re-design the system for the purpose of learning effectiveness can be met properly.

After a review of the system design iLearning Media and based on the level of need it is necessary in supporting the goals of this research is to add plug-in iLearning Media. Therefore, in this study required additional plugins PHP Code For Posts and User Role Editor. In a feasibility study on smkalfattah.ilearning.me system requirements analysis, users need to see that not only can be accessed by users IME user and admin only, but can be widely accessed without having to log into the system iLearning Media. So we need to see the dashboard page that can be accessed by everyone (public).

Application of Business Intelligence performed by adding a dashboard which will be designed from the data mart based on operational data iLearning Media with OLAP techniques that made three facts, the author of the article highest, most commentators, and most helpful articles. Thus these three facts will be used as the fact table.

In the design of data marts, the scheme used is Snowflake scheme for each fact table and table dimensions are related. Where there is a dimension table that is used for three different fact tables relational causing many to one between the foreign key in the tables that fact. The dimensions include the dimensions Period, Dimensions User (dim_wp_users), Dimensions User Access Rights (dim_wp_usermeta), Article Dimensions (dim_wp_posts), Dimension Sub-site (dim_wp_blogs). Solving the scheme based on its fact table, described in the following schemes:

![Figure 2. Three Tables Facts iLearning Media](image-url)
Based on data from the variable distribution of respondents according to Quality Assessment and Learning Effectiveness of the questionnaire that has been collected, the following are the results of these data. The following Table 3 the data from respondents for Variable Quality Rating:

<table>
<thead>
<tr>
<th>Score</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>560</td>
<td>56</td>
</tr>
</tbody>
</table>

So it can be obtained percentage is

\[
\text{% Score} = \frac{\text{Actual Score}}{\text{Ideal Score}} \times 100\% = \frac{5465}{5600} \times 100\% = 90.11\%
\]

So the result of 90.11%, this score is within the criteria very well. The implication is that with their system implementation iLearning Media, the data required for the purposes of assessment of quality can be easily obtained and processed into information in accordance with the needs of users who have served in the System Class Portfolio (scope), making it easier for the teacher to see the condition of the students, know the development students, and can be used as a reference for policy making judgment decisions against the student.

Effectiveness of Learning

Based on data from respondents' answers, it can be described as the number of respondents 56 people and can be analyzed as follows:

Ideal Score Actual Score = 5600 = 5465.

So it can be obtained percentage is

\[
\text{% Score} = \frac{\text{Actual Score}}{\text{Ideal Score}} \times 100\% = \frac{5465}{5600} \times 100\% = 90.11\%
\]

So the result of 90.11%, this score is within the criteria very well. The implication is that with their system implementation iLearning Media, the data required for the purposes of assessment of quality can be easily obtained and processed into information in accordance with the needs of users who have served in the System Class Portfolio (scope), making it easier for the teacher to see the condition of the students, know the development students, and can be used as a reference for policy making judgment decisions against the student.
Ideal Score Actual Score = $5600 = 5465$. 
So it can be obtained percentage is 
% Score = Actual Actual Score 
Ideal score $\times 100\% = 5051$ 
$5600 \times 100\%$

So to the result of 90.2%, this score is within the criteria very well. The implication is that with their system implementation iLearning Media, said to be more effective learning, information that has been presented in a visualization that allows teachers to view the condition of the students, know the development of the students, and can be used as a reference as a policy-making decision on the student forecast. As well as any student can automatically be motivated to continue to enter the ranks of the top.

Conclusion

By using a Media iLearning with concepts and tools business intelligence by adding a dashboard on the system, it can be stated that the enthusiastic students in writing and interaction from teachers to students and between students can be measured and proved more effective learning process. The system can be implemented with a measure of quality assessment be empirically proven through a questionnaire data were valid and reliable. Both in terms of dimensions Readiness, Accurate, and Timeliness. Other evidence that the value of the number of students who have achieved in accordance with the provisions of minimum completeness criteria (KKM). The system can be implemented with a measure of the effectiveness of learning empirically proven through a questionnaire data were valid and reliable. Both in terms of dimensions Readiness, Accurate, and Timeliness. It can be proved that the application of the system iLearning Media at SMK AL Fattah is effective both in terms of communication, interaction, and time.

References