ASSESSING THE QUALITY OF THE RUANG GURU APPLICATION AMONG HIGH SCHOOL STUDENTS USING THE DELON AND MCLEAN MODEL APPROACH

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Abstract. *Ruangguru application is designed to explore the effectiveness of the ruangguru application in improving the educational experience of high school students. The quality of the application helps provide satisfaction for the organization and increases competitiveness, providing added value to high school students. To measure the success of an application, the Delone and McLean success model can be applied. By testing the system using DeLone and McLean, it is known that the quality of the ruangguru application has very good quality, namely with a score of 100%*

Keywords: Ruang guru Application, Quality, Delon and Mc Lean

Abstrak .*Aplikasi Ruangguru dirancang untuk mengeksplorasi efektivitas aplikasi ruangguru dalam meningkatkan pengalaman pendidikan pada siswa skolah menengah atas.Kualitas aplikasi membantu memberikan kepuasan bagi organisasi dan meningkatkan daya saing, memberikan nilai tambah siswa sekolah menengah ats . Untuk mengukur keberhasilan suatu aplikasi dapat menerapkan model keberhasilan Delone dan McLean. Dengan menguji sistem menggunakan DeLone dan McLean diketahui bahwa kualitas aplikasi ruang guru memiliki kualitas sangat baik yaitu dengan skor 100%.*

Katakunci:*Aplikasi,Ruang guru,Kualitas,Delon dan Mc lean*

Introduction

Learning media is very important in education, especially for schools to enhance their competitiveness. It defines learning media as a structured system that processes learning materials according to specific instructions to produce teaching materials, which can be manual or computerized. The quality of learning media is evaluated based on six key variables: system quality, information quality, usage, user satisfaction, individual impact, and organizational impact. The quality of learning media refers to system performance, which includes the effectiveness of hardware, software, policies, and procedures in meeting user information needs. This article emphasizes that the quality of learning media is crucial. This research builds on the DeLone and McLean model, which has been updated over the years to include service quality and redefine certain variables, ultimately focusing on net benefits. User satisfaction is highlighted as a success measure for learning media, and this research aims to explore how learning media influences the quality of education.(Wahyudi, Respati, and Tomo Ardianto 2017)

E-learning is a significant technological advancement in modern educational systems. Therefore, the methods and content of e-learning bring new changes and challenges in technical and social aspects. With the advancement of e-learning, students no longer need to attend tutoring locations two or three times a week. They can learn anytime they want as long as they have a laptop or smartphone. This phenomenon is called online tutoring. The lessons that students receive in school can also be learned through online tutoring. The curriculum prepared by the government, which is usually implemented in schools, is also available in online tutoring. Now, online tutoring services are increasingly popular not only in Indonesia but also worldwide. Consequently, many people have taken the initiative to create online tutoring services with competent and experienced tutors.(Syamsurijal and B 2022)

Several well-known online tutoring applications worldwide include Khan Academy, BYJU, Descomplica, and Yuanfudao, while popular online applications in Indonesia include Quipper Video, Zenius.net, and Ruangguru. The Ruangguru application is a comprehensive learning application designed for all learning difficulties. Ruangguru provides a management system for learning that can be used by students and teachers to manage classroom activities virtually. It is equipped with thousands of questions aligned with the applicable curriculum in Indonesia, as well as tools for analyzing test results. It can be concluded that Ruangguru in the education world is a place or forum where everyone seeks and provides information, discusses, and shares thoughts among one or more people, all with the aid of technology or mobile devices connected to the internet. The integration of the Ruangguru application with the education world makes it easier for students to study and broaden their knowledge about various sciences. The purpose of this research is to analyze the role of multimedia further in the development of modern education as it relates to the Ruangguru application.(Shoumi 2019)

To identify factors that can contribute to the success of learning media, the researcher uses the DeLone and McLean model to measure the success of the Ruangguru learning media, which includes six components to assess the success of learning quality: system quality, information quality, user satisfaction, use, individual impact, and organizational impact.(Lutfi 2023)

From the explanation above, it is hoped that Ruangguru can meet academic needs so that human resource performance, service quality, and competitiveness among educational institutions can improve. To measure the success of a learning medium, the Delone and McLean success model

can be used. This research will discuss factors that can influence the success of learning media from the perspective of the Delone and McLean success model.(Pusparini and Sani 2021)

In previous research conducted, Delone et al. (2004) explained a model of information system success, which defines satisfaction as being influenced by several aspects, including information quality, system quality, usage, and service quality. Other aspects that influence consumer satisfaction in this information system success model include the consumers themselves.

The aim of this research is to analyze the quality of the Ruangguru application using the Delone and McLean model.

In 1992, William H. DeLone and Ephraim R. McLean developed a model that can influence the outcomes of learning media quality, which includes six dimensions: System Quality, Information Quality, Use, User Satisfaction, Individual Impact, and Organizational Impact. This model explains how the quality of learning media can affect learning quality and user satisfaction.(K. Pramudito et al. 2023)

Ruang Guru is an educational application designed to provide digital learning solutions in Indonesia. This application offers various features that enable students, teachers, and parents to connect within a single platform that facilitates the teaching and learning process more easily and efficiently (et al. 2020)

Key Aspects of the Ruang Guru Application:

The purpose and function of the Ruang Guru application are aimed at improving the quality of education in Indonesia by introducing technology-based learning. This application provides various educational services, including virtual classes, learning videos, exercise questions, and private tutoring, all of which can be accessed via mobile devices or computers (Rahadian, Rahayu, and Oktavia 2019)

Main Features of Ruang Guru:

a. Learning Videos: Ruang Guru offers thousands of learning videos covering various subjects, from elementary education to preparation for national exams and entrance exams for universities. Thesematerials are delivered by experienced instructors and can be accessed anytime and anywhere.

b. Private Classes: Through this application, users can select private classes with teachers that meet their needs. These private classes can be conducted online, allowing students to receive more attention and direct guidance on difficult subjects.

c. Exercise Questions and Discussions: The exercise feature helps students practice questions similar to those in exams, accompanied by clear explanations. This helps students understand concepts more deeply.

Advantages of the Ruang Guru Application:

a. Accessibility: One of the main advantages of Ruang Guru is ease of access. By using this application, students can learn anytime and anywhere without being limited by time and place.

b. Quality Teaching: This application collaborates with competent and experienced educators, ensuring that students receive quality materials.

c. Availability of Various Subjects: Ruang Guru provides a wide range of subjects across different educational levels, from elementary to high school, including materials for national exams and university entrance exams.

d. Personalized Learning: This application allows students to choose materials according to their needs and levels of ability. This feature helps create a more personalized learning experience tailored to individual learning styles.

Research Methodology
For this research, a descriptive qualitative research method is used, and the research flow includes several stages. These stages include problem identification, where the author conducts the initial process of identifying and formulating a problem that occurs. Data collection is conducted through observation and interviews with relevant parties. For literature studies and research reviews, this stage involves literature studies and analyses of previous research, where the author studies literature related to the DeLone and McLean success model and relevant theories.(Pramudito et al. 2023)(Octaviani, Andayani Komara, and Kurniawan 2022)
Sample Selection Method
In this research, there are 94 respondents consisting of male and female high school students who are tested using the Slovin technique to determine the number of respondents, and purposive sampling is used for the interview phase with academic administration units. This research uses a saturated sampling technique by taking a sample equal to the total number of existing respondent population (Suputra and Sriathi 2018)

Gambar 1. Figure 1. DeLone and McLean Information System Success Model (1992) Source: (Wu & Wang, 2006)
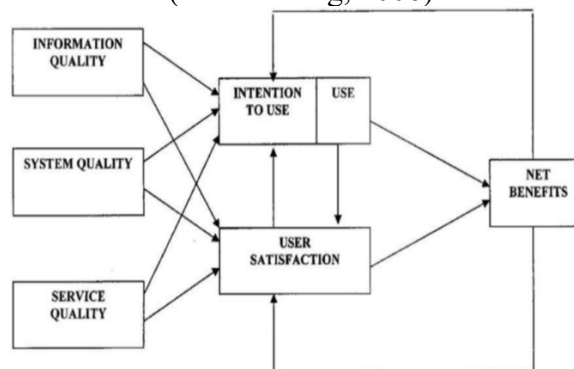
Results and Discussion
Analysis of the quality testing results of the Ruangguru application using the DeLone and McLean Success Model. The quality model adopts the DeLone and McLean model, which includes Information Quality, System Quality, Service Quality, Use, User Satisfaction, and Net Benefit.(Vigim 2019)
Dalam memberikan jawaban dari kuesioner yang diberikan dibuat skala pengukuran sebagai berikut:

Tabel 1. Measurement Scale

Indikator	description"	Weight
SS	strongly agree	5
S	Agree	4
CS	somewhat agree.	3
TS	Disagree	2
STS	strongly disagree.	1

Sumber: (Surono, 2020)

Tabel 2. ercentage of Respondent Responses to the Ideal Score

% Scor	Criteria
20,00%-36,00%	STS
36,00%-52,00%	TS
52,01%-68,00%	CS
68,01%-84,00%	S
84,00%-100%	SS

Sumber: (Pusparini et al., 2020)

Percentage table of system testing using the DeLone and McLean Success Model as follows:"

1 Percentage of scores for the information quality aspect (Information Quality)

Tabel 3. Aspek Information Quality

Jawaban	Bobot	5	6	7	8	Total
SS	5	28	46	31	35	140
S	4	58	35	51	44	188
CS	3	6	10	9	12	37
TS	2	1	1	0	0	2
STS	1	1	2	3	3	9
Responden		94	94	94	94	376
Aktual		393	404	389	390	1576
Ideal		376	376	376	376	1504

The table above shows the results of the questionnaire assessment for the Information Quality aspect, with the actual scores as follows

% Skor Aktual = 104%

2 Persentase scor model for aspect System Quality

Tabel 4. Aspect System Quality

Jawaban	Bobot	5	6	7	8	Total
SS	5	38	37	44	40	159
S	4	39	39	33	40	151
CS	3	14	14	11	11	50
TS	2	0	0	3	0	3
STS	1	3	4	3	3	13
Jml Responden		94	94	94	94	376
Aktual		391	387	394	396	1568
Ideal		376	376	376	376	1504

The table above shows the results of the questionnaire assessment for the System Quality aspect, with the actual scores as follows
% Skor Aktual =104%

3 Persentase scor model Service Quality

Tabel 5. Aspek Service Quality

Jawaban	Bobot	9	10	11	Total
SS	5	38	41	37	116
S	4	42	40	47	129
CS	3	11	10	6	27
TS	2	1	0	3	4
STS	1	2	3	1	6
Jumlah Responden		94	94	94	282
Aktual		395	398	398	1191
Ideal		282	282	282	846

The table above shows the results of the questionnaire assessment for the Service Quality aspect, with the actual scores as follows% Skor Aktual = 140%

4 Persentase sckor model (Use)

Tabel 6. Aspek Use

Jawaban	Bobot	12	13	14	15	Total
SS	5	47	38	43	40	168
S	4	35	43	35	32	145
CS	3	8	6	12	16	42
TS	2	3	6	3	5	17
STS	1	1	1	1	1	4
Jml Responden		94	94	94	94	376

Aktual	406	393	398	387	1584
Ideal	376	376	376	376	1504

The table above shows the results of the questionnaire assessment for the Use aspect, with the actual scores as follows

% Skor Aktual = 105%

   5   Persentase scor model User Satisfaction

Tabel 7 . Aspek User Satisfaction

Jawaban	Bobot	16	17	18	19	Total
SS	5	39	46	45	42	172
S	4	41	35	39	39	154
CS	3	9	10	7	10	36
TS	2	3	2	2	2	9
STS	1	2	1	1	1	5
Jml Responden		94	94	94	94	376
Aktual		394	405	407	401	1607
Ideal		376	376	376	376	1504

The table above shows the results of the questionnaire assessment for the Use aspect, with the actual scores as follows

% Skor Aktual = 106%

   6   Persentase skor model (Net Benefit)

Tabel 8. Aspek Net Benefit

Jawaban	Bobot	20	21	22	23	Total
SS	5	37	28	36	38	139
S	4	46	56	47	43	192
CS	3	8	7	8	10	33
TS	2	2	0	0	1	3
STS	1	1	3	3	2	9
Jml Responden		94	94	94	94	376
Aktual		398	388	395	396	1577
Ideal		376	376	376	376	1504

The table above shows the results of the questionnaire assessment for the Net Benefit aspect, with the actual scores as follows

%Skor Aktual =104%

Keterangan untuk penyebaran kuisioner

Tabel 10. Congclution model *Delone And Mclean Model*

No	Aspek	Skor Aktual	Skor Ideal	Total Skor
1	*Information Quality*	1576	1504	104%

2	*System Quality*	1568	1504	104%
3	*Service Quality*	1191	846	140%
4	*Use*	1584	1504	105%
5	*User Satisfaction*	1607	1504	106%
6	*Net Benefit*	1577	1504	104%
Total		9103	8366	110,5%

The table above summarizes the results of the quality assessment of the Ruang Guru application based on six system testing aspects. The results are as follows:

- Information Quality: 104%
- System Quality: 104%
- Service Quality: 140%
- Use: 105%
- User Satisfaction: 106%
- Net Benefit: 104%

Overall, the average score obtained from the assessment using the Delone and McLean model is 100.5%, indicating that the quality of the Ruang Guru application is classified as very good.

Conclusion

Based on the analysis and testing, it can be concluded that the Ruangguru application can meet academic needs, thereby improving human resource performance, service quality, and competitiveness among other educational levels. Testing the Ruangguru application using DeLone and McLean has shown that important factors such as system quality, information quality, service quality, use, user satisfaction, and net benefit are crucial for application development. Furthermore, the current Ruangguru application demonstrates very good quality overall, achieving a score of 100.5%. The DeLone and McLean model is capable of measuring the success of an application, illustrating the interdependence of six success assessment measures for information systems.

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