

Development of a Connecting Web as an Information Media for Parents of VIP Pesawat Wates Junior High School Kulon Progo

Nofianti^{1*}, Deni Hardianto², Syahrir³

Magister of Educational Technology, Faculty of Education and Psychology,
Universitas Negeri Yogyakarta

Corresponding Author: Nofianti nofianti0414fip2022@student.uny.ac.id

ARTICLE INFO

Keywords: Connecting Web,
Information Media

Received : 4 August

Revised : 19 September

Accepted: 23 October

©2024 Nofianti, Hardianto, Syahrir:

This is an open-access article
distributed under the terms of the

[Creative Commons Atribusi 4.0
Internasional](https://creativecommons.org/licenses/by/4.0/).



ABSTRACT

This study aims to assess the feasibility and practicality of a connecting website as an information medium for parents of VIP Pesawat Junior High School students. The Research and Development (R&D) process followed the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation). A total of 92 parents of VIP Pesawat Wates Junior High School class VII students were selected through Simple Random Sampling. Data collection involved validation questionnaires for media and material experts, and practicality surveys for parents. The data was analyzed using quantitative descriptive methods. The results show that: (1) The media validation scored 79% on two aspects—design usage and visual communication—indicating the website is feasible as an information medium. (2) The material experts' validation results were 75% for the content/material aspect, 85% for language, 75% for implementation, and 80% for usability, affirming its suitability for use. (3) In terms of practicality, user tests showed a 90% score for usefulness, 77% for ease of use, 86% for ease of learning, and 86% for satisfaction. These scores demonstrate that the connecting website is practical and effective as an information source for parents of students at VIP Pesawat Wates Junior High School

INTRODUCTION

Education is an essential aspect of human life, with humans as the main object because of their intellectual potential (Arif et al., 2022). This potential mind needs to be developed to cope well with life, including critical thinking, creativity, and effective problem-solving. Studies have shown that education and continuous mental training can improve cognitive function and prevent age-related decline.

Education not only develops the mind but also shapes a person's character and ability to face life's challenges. A good education provides a future for children as the nation's successors, who must be ready to face various situations (Suci & Siskawati, 2021). According to Kawuryan, education aims to convey civilization and foster a civilized culture, in line with the goals of national education to develop the potential of students to become human beings of faith, piety, noble character, and knowledge.

Quoting John Dewey in Fikriyah (Fikriyah et al., 2022), education is the process of reconstructing experiences to increase experience and improve abilities as a basis for subsequent experiences. This approach emphasizes that education is about the continuous and dynamic shaping of experience, which creates an ever-evolving cycle of learning. Dewey believed that through this kind of educational process, individuals can develop critical, creative, and adaptive thinking skills that are important in facing life's challenges.

In Indonesia, education plays an important role in building society (Sujana, 2019). Law No. 20/2003 on the National Education System states that national education functions to develop abilities and shape the character and civilization of a dignified nation (Siswoyo et al., 2020). Formal, informal and non-formal education are existing channels, with each having a different but complementary structure and system to develop the potential of students.

Formal education includes structured levels of education, ranging from primary education to higher education (Irwansyah, 2021), while informal education takes place in the family and community environment through daily learning processes (Marzuki, 2012). The process in informal education is not clearly organized and also not systematic. However, informal education is also very important in the process of forming one's personality (Sulaeman, 2022). On the other hand, non-formal education includes training or courses organized outside the formal education system (Syaadah et al., 2023), such as literacy programs, skills, and job training. These three educational pathways have a strategic role in creating competent and competitive human resources, in accordance with the national education goal to educate the nation's life.

Law Number 20 of 2003 Article Paragraph 1 states that education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves, society, nation and state. These efforts can be carried out at all levels of education in Indonesia, including at the Junior High School (SMP) level.

In the context of pesantren-based junior high schools, formal education and religious education are integrated to ensure students not only meet national education standards but also obtain a strong religious education. The curriculum used covers both general and religious subjects, with interactive and participatory methods. Extracurricular activities are designed to support students' character and skill development, creating an environment that supports holistic learning and strong character development. Pesantren-based education integrates character education in its education system (Hastasari et al., 2022). There are several elements that distinguish pesantren from other education systems, namely dormitories as a place for students to live, mosques/mushola as a place of worship, madrasah/schools as the center of educational activities, kyai as the leader (Dhofier, 1980).

The role of parents is very important in supporting children's education in junior high schools that are integrated with pesantren. Parents must actively communicate with the pesantren, ensure that the values taught are applied at home, and support children in organizing study time. With active involvement, parents can help create synergy between formal education and home education, ensure continuity in children's education, and support children's overall development.

At SMP VIP Pesawat Wates, which is part of Pondok Pesantren Pesawat Wates in Kulon Progo district, there is a significant problem with parents' involvement in their children's education. Guardians often do not have sufficient control or information about their children's education process at school. For example, an interview with one guardian revealed that during monthly visits (*sambangan*), there is no discussion about the child's learning progress and the child tends to focus more on playing cellphones than communicating with parents about school activities. In addition, some parents, such as vegetable sellers, prioritize work over monitoring their children's attendance and progress at school.

This problem is exacerbated by the inadequate use of WhatsApp groups as a communication channel between the school and parents. Although the WhatsApp group exists, the information conveyed is often not related to children's learning activities, but only administrative announcements and incidental activities. This is coupled with technical issues such as the limited storage capacity of parents' mobile phones, which results in important information sometimes not being received. Also, some parents are not active in the group, so information does not always reach all parents, especially those who live far from the school.

To overcome this problem, it is necessary to develop information media such as web liaison that can improve communication between schools and parents. This web is expected to provide up-to-date information on children's academic progress, attendance and activities in real-time. By utilizing technology, as suggested by AECT 2004, the liaison web can facilitate two-way communication, facilitate access to information, and increase parental involvement in their child's education. Good management of the web hub,

including training for parents and staff, will ensure that technology is used effectively to support education and collaboration between schools and families.

LITERATURE REVIEW

Connecting Web

World wide web (www) is a network that can be used to store data in the form of text, data, sound, and video (Smaldino et al., 2014). The use of www is highly dependent on the availability of the internet for easy access. The web is a collection of web pages and documents stored on computer servers around the world and connected in a network called the internet (Batubara, 2018). The web is a collection of pages contained on the internet and contains text / writing, media (videos, photos, etc.) and also applications. The web is created with a program and then called by a domain.

The web needs to be known because access to resources provided through the internet platform can support daily human activities (Ismail & Kuppusamy, 2022). Khder mentioned that the web has the aim of processing information and media to make it easier for users to understand (Khder, 2021). Web services are part of software based on web frameworks and object-oriented standards (Aga, 2023). With the website, humans as users can find all the information they want, whether in the form of text, images, animations, sounds, or a combination of several forms, both static and dynamic. The pages on the web will form a series of connections that are interconnected due to the internet network.

The web is a media in the form of pages that contain information and can be accessed by the internet from anywhere and anytime.

UI UX in Web Link Development

Inappropriate User Interface can make users easily leave the software that has been developed (Cooper, 2007). UI is how a program can interact with its users (Haryuda et al., 2021).

According to Galitz in Wiwesa, there are principles that must be adhered to in developing UI so that it can run effectively (Wiwesa, 2021b). These principles consist of aesthetically pleasing, clarity, comprehensibility, configurability, consistency, efficiency, flexibility, responsiveness, and simplicity.

User Experience (UX) is the experience experienced by the user when the user uses a service or a product (Haryuda et al., 2021). UX is also a process that is obtained from user experience in a product or service and also the feedback given by users on the experience they get in general (Wiwesa, 2021a).

User Experience (UX) is a concept that covers all aspects of an individual's interaction with a system, be it a website, application, product, or service. The main focus of User Experience is how users feel and interact with the product as a whole, including aspects such as usability, enjoyment, and satisfaction. The importance of UX in digital product design is significant as it can affect the success of the product, including in increasing the usability of the product.

Software Quality (Web Link)

There are many standards for testing software including McCall, Boehm, FRUPS, Dromey, Bertoa, ISO 9126, and ISO 25010 (P. Miguel et al., 2014). Of these various tests, the ISO 9126 and ISO 25010 standards are internationally

recognized. The ISO 25010 standard is a development of the ISO 9126 standard. The ISO 25010 standard consists of 8 characteristics: (1) functional suitability, (2) reliability, (3) performance efficiency, (4) usability, (5) security, (6) compatibility, (7) maintainability, and (8) portability.

The purpose of web development is to be used by users, so then product testing is focused on usability testing. Usability testing is good for assessing user satisfaction (Hashim & Isse, 2019). One of the tools used to measure and evaluate software quality is the USE Questionnaire (Usability, Satisfaction, and Ease of use) (Machado Faria et al., 2016). The USE Questionnaire, or Usability, Satisfaction, and Ease of Use Questionnaire, was created by Arnold M. Lund in 2001. Lund is an expert in the field of human-computer interaction and user experience design.

Information Media

In KBBI (Kamus Besar Bahasa Indonesia), media is a tool, means of communication, intermediary, and connector. In AECT (The Association for Educational Communication and Technology) 1977 defines media with anything that can be used to be able to channel information (AECT, 1977). Meanwhile, Suparman argues that media is a tool that can be used as a distributor of messages and information from people who send messages to people who receive messages (Suparman, 1997).

Fatta argues that information consists of various kinds of data which are then processed and processed to have a form that can be interpreted by the recipients and is useful for making a decision that will be useful both now and in the future (Fatta, 2007). Information is data that is presented in a form that is easy to understand and can be related to the context of its use (Joan, 2008). Information is a record of phenomena seen or it can be a decision made by someone (Yusup, 2010). Information is also a phenomenon as well as facts, data, or knowledge which is then processed and communicated so that it can be utilized by those in need (Winarsih, 2013).

Web Link as Information Media

In today's digital era, the web has become one of the most important and irreplaceable information media. The web not only provides wide access to various types of information from around the world, but also allows users to actively engage with the content. Through the web, one can easily search for information on any topic, from breaking news to practical guides to academic research. This is changing the way we learn, work and interact with the world.

METHODOLOGY

This study uses a research and development model, R&D (Research and Development). Seels & Richey revealed about development research which is a systematic study to design, develop, and evaluate programs, processes, and learning outcomes that must meet internal consistency and effectiveness criteria (Seels & Richey. R. C., 1994). Sugiyono has an opinion that R&D is a study that aims to produce and also evaluate products (Sugiyono, 2013).

For the research on the development of a liaison web as a medium of information for student guardians of VIP Pesawat Junior High School, the researcher used the ADDIE model developed by Dick and Carey. The selection

of the ADDIE model in developing a liaison web as an information medium for student guardians at VIP Pesawat Junior High School Wates is based on its ability to produce structured and effective products through five stages: Analysis, Design, Development, Implementation, and Evaluation. This model allows for in-depth needs analysis, precise design, and scalable development and implementation. Continuous evaluation also ensures the quality and relevance of the media.

The product trial design in this study involves several important stages to ensure the feasibility and effectiveness of the liaison web as an information medium for parents/guardians of VIP Aircraft Junior High School Wates students. The first stage is expert validation, where the liaison web will be assessed by material experts and media experts to assess the feasibility of content and design. After expert validation, a field trial will be conducted involving parents/guardians as test subjects to obtain direct feedback on the functionality and usefulness of the web.

The data collection techniques used in this study include observation, interviews, questionnaires, tests, and documentation. Observations were conducted to gather initial information about parental involvement and the learning process at school. Interviews were used to explore deeper information from the research subjects regarding the problems found during observation and to plan further development of the model. Questionnaires were used to collect quantitative data regarding user perception and practicality of the web hub.

Data collection instruments included observation sheets, interview guides, and questionnaires. The observation sheet was used to systematically record data during observation, while the interview guide helped to ensure that interviews were conducted consistently and effectively. The questionnaires were divided into several categories, including questionnaires for material experts, media experts, and student guardians, each of which was designed to evaluate the feasibility, quality, and practicality aspects of the connecting web.

The data analysis technique uses quantitative data obtained from product testing scores with research instruments. The Likert scale was used to measure the Usability aspect of the web based on the ISO 25010 Standard. The quantitative data collected was calculated using a formula to determine the percentage of practicality, which was then converted into a qualitative value on a scale of 5. The interpretation of the feasibility score was measured to assess whether the liaison web fell into the category of very unfit, less fit, quite fit, fit, or very fit.

RESULT

The development of a liaison web for SMP VIP Pesawat Wates aims to provide effective information media for student guardians, many of whom are santri at Pondok Pesantren Pesawat Wates, Kulon Progo. This development process is carried out through several stages, starting with the analysis stage. At this stage, user needs were identified with the results of surveys and interviews showing that student guardians need quick access to lesson schedules, attendance information, and school announcements and activities. This need emphasizes the importance of a transparent and accessible system to increase guardians' involvement in their children's education.

The analysis phase also included a functional analysis aimed at ensuring that the web fulfills all needs in an effective and efficient manner. The main features required include the home portal, profile, classes, blog, knowledge splash, and contact. The main focus was on creating an intuitive interface and clear navigation flow to improve user experience. A good user experience is expected to strengthen communication between the school and guardians and support parental involvement in the education process.

A technical analysis is conducted to ensure that the existing technology infrastructure supports the needs of the planned system. This involves evaluating the available hardware and software to determine if there is a need for upgrades or additions. Next, user experience (UX) analysis focuses on gathering feedback from potential users regarding web design and functionality. This feedback is used to create a design that meets user expectations and ensures a pleasant and efficient experience.

In the design stage, ideas and concepts from the analysis stage are transformed into visual and functional plans. The design should reflect the school's identity and provide a user-friendly and responsive layout across different devices. It is important to choose design elements such as colors, fonts and icons that are consistent with the school's brand to create a professional and recognizable image. Responsive design ensures that the web remains optimized across different screen sizes, improving readability and accessibility for all users.

In the development stage of the liaison website as an information medium for the guardians of VIP Pesawat Junior High School Wates Kulon Progo, the platform chosen is WordPress which is integrated as a subdomain of the boarding school website. The WordPress configuration and personalization process includes installing a theme according to the school's identity as well as setting up plugins for important features such as homepage, profile, class, blog, spark of knowledge, and contact. In addition, the developer must also ensure the security of the website by keeping all plugins and themes updated regularly.

During development, the involvement of stakeholders such as school administrators and guardians is essential to get feedback on the specific content and features needed. Good communication between programmers and stakeholders will ensure that the website not only meets information needs but is also easy to use and access by end users. Website validation and improvement were carried out based on input from validators who were material experts and media experts.

The validation process was carried out by material experts and media experts by filling out questionnaires/questions covering various parameters. The validation instrument from material experts includes four parameters, namely: material, language, implementation, and usability. Meanwhile, the media validation included two parameters, namely usage design and visual communication. The validation results were calculated using a Likert scale, and the percentage of the results was used to assess the quality of the media.

The media expert who conducted the validation was Dr. Pujiriyanto, S.Pd., M.Pd., from Yogyakarta State University. The results of the media expert validation are as follows in table 1:

Table 1. Media Expert Validation Results

Perspektif	Jumlah	Nilai Total	Persentase
Desain Penggunaan	19	24	79%
Komunikasi Visual	22	28	79%

The validation results showed that the user design and visual communication each received a percentage of 79%. This indicates that the media is quite good in terms of design and visual communication. This consistent assessment is the basis for further development with a focus on improving aspects that are already good and improving areas that still require minor improvements.

The material in the liaison web as an information medium for student guardians of VIP Airplane Wates Junior High School students is seen from several aspects: (1) material, (language), (3) implementation, and (4) usability. The material validator as a material validator is Dr. Pujiriyanto, S.Pd., M.Pd.. The following are the results of filling out the material validation questionnaire by the material expert on table 2:

Table 2. Material Expert Validation Results

Perspektif	Jumlah	Nilai Total	Persentase
Materi	15	20	75%
Kebahasaan	17	20	85%
Keterlaksanaan	12	16	75%
Kegunaan	16	20	80%

The assessment from the material perspective showed that the content presented received a total score of 15 out of 20, with a percentage of 75%. Although this score indicates that the material presented is good enough, there is still room for improvement. Aspects that can be improved include presenting content that is more in-depth and relevant to the main purpose of creating a web hub, so that it can meet user expectations more optimally.

In terms of language, the assessment showed very good results with a total score of 17 out of 20, or about 85%. The use of clear, precise, and contextual language is considered very helpful in conveying information. Good and easy-to-understand language is very important in ensuring that users can understand the content presented easily, thus increasing the effectiveness of information delivery.

In the implementability perspective, the materials were rated from four statements with a total score of 12 out of 16, or about 75%. This shows that although the materials in the web hub are quite good in implementation, there are still some aspects that could be further developed. Perhaps it is the navigation, delivery, or accessibility aspects that need attention to make the overall material more accessible and practicable for users.

Finally, the usability perspective showed positive results with a score of 16 out of 20, or a percentage of 80%. The materials were rated as very useful to the users, which means that the information conveyed managed to meet the users' needs significantly. However, to achieve maximum usability, some sections may still be adjusted or added according to more specific user needs.

The homepage of the SMP VIP Pesawat website displays main information such as the school name, logo, navigation menu, latest news, and announcements. The "Profile" menu provides sub-menus on school history, vision and mission, and organizational structure. The "My Class" menu contains specific information about class schedules, assignments, and extracurricular activities. In addition, there is also a "Blog" page containing educational articles, an in-depth "Percik Ilmu" page on religious knowledge, and a "Contact" page to facilitate communication between the school and student guardians. The clean and simple visual design helps to create a pleasant browsing experience, ensuring visitors can easily find the information they are looking for.

The implementation stage in the development of a liaison website as an information medium for guardians of VIP Pesawat Junior High School Wates Kulon Progo involves a series of crucial steps to transform the design and plan into a functional and accessible website. Once the design and structure of the website were approved, the developer began development using the WordPress platform as a subdomain of the boarding school website. This process involved installing WordPress, configuring the server, and installing a theme that reflects the school's identity. Next, special features such as homepage, profile, class, blog, knowledge splash, and contact were integrated. The responsiveness of the website was optimized so that it could be accessed properly from various devices, and final testing was conducted to ensure that all features functioned properly and the website could be used intuitively by the end users.

The evaluation stage of the liaison website development is crucial to ensure that the website meets quality standards and user needs. A thorough evaluation is conducted after launch to refine and improve performance and responsiveness. Evaluation from the user's perspective ensures satisfaction and comfort in using the website, including checking feedback from guardians and other users about clarity of information, intuitive navigation, and page loading speed. This feedback is important for adjusting or improving the user experience through design changes or additional features as necessary. The main goal of the evaluation is to ensure that the website functions technically well and is effective in providing the information needed as well as providing a good experience for the end user.

After validation, a trial of the product was carried out to assess the practicality of the product that had been developed. The following are the results of the practicality test by users.

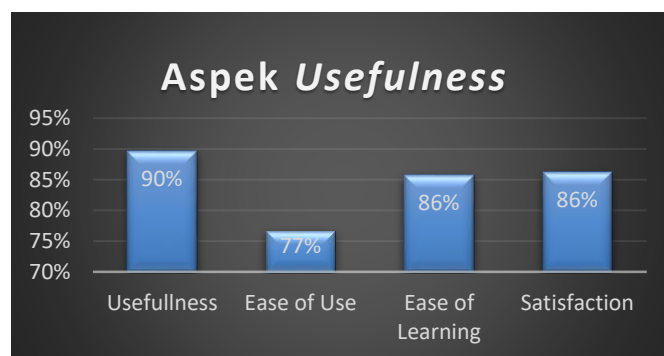


Figure 1. Test Results on the Usefulness Aspect

The bar chart shows the results of testing four main aspects of the liaison web used as an information medium for parents/guardians of VIP Pesawat Wates Junior High School students. The aspects tested were Usefulness, Ease of Use, Ease of Learning, and Satisfaction. The high score on Usefulness (90%) indicates that the web is very useful for users, meeting their needs and expectations well. This reflects that the features are relevant and add significant value. However, the Ease of Use score of 77% indicates some difficulty in use, which may be due to a less intuitive interface or design.

The Ease of Learning score of 86% indicates that the majority of users found the product easy to learn, thanks to clear documentation and intuitive design. This is important for early adoption and continued use. In addition, the Satisfaction score of 86% reflects that users are satisfied with their overall experience, indicating that the product successfully met expectations in terms of functionality and convenience. This bar chart provides a good overview of users' perceptions of the Wates VIP Pesawat SMP liaison web, indicating the potential for further improvements on the ease-of-use aspect to increase overall satisfaction and usability.

DISCUSSION

From the results of observations and interviews conducted by researchers, it was found that the information conveyed to student guardians at VIP Airplane Junior High School Wates was not fully received properly. Although the school has utilized WhatsApp group as the main communication medium, many student guardians admitted that it was still difficult to get clear and complete information. Some of the factors that become obstacles include limited access to technology, inconsistent frequency of information, and limited student guardians who can join the application.

Further analysis shows that although WhatsApp groups have become a common means of communication, this medium still has limitations in delivering complex and detailed information. Some guardians felt that information was often missed or not well understood due to the large number of messages in the group. In addition, differences in the level of technological understanding among student guardians also resulted in some of them not being able to utilize WhatsApp groups optimally.

Based on these findings, it is necessary to develop a website that can function as a centralized source of information for student guardians. This website will provide easier and more structured access for student guardians to obtain important information related to school activities, schedules, announcements, and so on. With this liaison website, it is hoped that communication between the school and student guardians can run more effectively, so that the information needed can be maximally received by all parties.

Web liaison was chosen as a solution to overcome communication problems between teachers and student guardians at VIP Airplane Junior High School Wates. This web is an effective medium in delivering information quickly and accurately, allowing student guardians to always get the latest updates on their child's academic development and school activities. With the liaison web, it is

hoped that the relationship between the school and student guardians can be more closely established, so that parental participation in supporting their child's education will increase.

According to Kuswanto and Arianti, information technology-based communication instruments are needed as a medium of communication between teachers and parents in establishing harmonious partnerships so that educational goals can be achieved (Kuswanto & Dwi Arianti, 2022). Information technology-based communication instruments are indispensable in the context of education. They emphasize that such media can be an important bridge in building harmonious partnerships between teachers and parents. Through digital platforms, communication becomes easier and more transparent, allowing both parties to work together effectively to achieve the desired educational goals.

By utilizing information technology, this web hub not only facilitates communication but can also serve as a tool to increase parental involvement in their child's education process. Parents can easily access important information such as activity schedules, evaluation results and school announcements. This is in line with Kuswanto and Arianti's view that a strong partnership between teachers and parents is key to educational success.

In research using the R&D method, there are several research models, namely 4D, ASSURE, Kemp, Hannafin and Peck, Gagne and Briggs, ADDIE, and Borg & Gall. For this research on the development of a web link as a media for information for VIP Airplane Junior High School student guardians, researchers used the ADDIE model developed by Dick and Carey. The selection of the ADDIE model in developing a liaison web as an information medium for student guardians at VIP Airplane Junior High School Wates is based on its ability to produce a structured and effective product through five stages: Analysis, Design, Development, Implementation, and Evaluation. This model allows for in-depth needs analysis, precise design, and scalable development and implementation. Continuous evaluation also ensures the quality and relevance of the media. Rohma said that the ADDIE model is effective in developing web-based learning media, significantly increasing user interaction and participation (Rohma et al., 2022).

This research aims to develop a liaison web as a medium of information for guardians of students of VIP Airplane Junior High School Wates. This liaison web is designed to facilitate communication and provide up-to-date information to student guardians regarding educational developments and student activities at school. With this web, it is expected that the relationship between the school and parents will be better and information can be conveyed more quickly and efficiently.

The developed liaison web has gone through a validation process from two important aspects, namely media validation and material validation. Media validation was conducted by experts who aimed to assess the feasibility of the design and functionality of the web, while material validation aimed to ensure that the content presented on the web was appropriate and useful for student guardians. Both validations showed that the liaison web met the quality standards required to be used effectively as an information medium.

Based on the results of the feasibility assessment from the media experts, the liaison web received an average score of 79%. When the value is converted, it shows that this liaison web is included in the "Appropriate" category for use. Product feasibility in terms of media consists of design use and visual communication. The product trial of the developed web link was carried out in two stages, namely testing on a small-scale group and testing on a large-scale group. In the small-scale trial, the participants involved were student guardians of students in class 7A of VIP Aircraft Junior High School Wates. The number of respondents in this trial was relatively limited, but representative enough to get an initial picture of the practicality and usefulness of the web product being tested.

The results of the small-scale trial showed that the average percentage of user satisfaction reached 85%. When these results are converted into assessment categories, this figure falls into the "Very Practical" category. This means that most student guardians feel that this web liaison is easy to use and very useful in supporting communication between the school and student guardians.

The next stage was a large-scale group trial involving all guardians of grade 7 students at SMP VIP Pesawat Wates, with a total of 92 respondents. Although the scope of respondents was expanded, the results obtained remained consistent with the small-scale trial, with a percentage of 85%. This shows that the web liaison product has a very high level of overall practicality, not only in small groups but also in large groups.

In conclusion, in both the small-scale and large-scale trials, the web liaison product was rated as "Very Practical" by the users. This provides a strong indication that this web development has successfully met the needs of student guardians in supporting effective communication with the school. Khder mentioned that the web has the purpose of processing information and media to make it easier for users to understand (Khder, 2021). This success is the basis for considering a wider application of this web link in the future.

Web liaison is feasible and practical because it meets the needs of efficient communication between schools and student guardians. With web liaison, information is not only conveyed through a physical liaison book but has utilized the development of technology because the web can be accessed by the internet. As said by Ismail and Kappusamy that the existence of the internet will facilitate human daily activities (Ismail & Kappusamy, 2022).

From a design perspective, the web can be optimized for accessibility and good user experience (UX), which means that users with different levels of technical ability can easily access and use the platform (Dharmayanti et al., 2018). Responsive design allows the web to be accessed from a variety of devices, including mobile phones and tablets, which makes it easier for student guardians to stay connected anytime and anywhere.

The liaison web also contains several elements that greatly contribute to the trust, satisfaction, and loyalty of its users (Cyr, 2008). Some of the elements contained in the web are the home menu, profile, my class, blog, spark of knowledge and contact. With the existence of this web link, it can be used as a medium of information for student guardians/parents. When information from the school can easily reach parents, it will then be able to increase the participation

of parents in contributing to the success of student learning because parents have carried out their obligations in monitoring student learning activities through the developed liaison web. Parents are one of the three pillars of education according to Ki Hadjar Dewantoro (Dewantara, 2013). With the development of this liaison web, then the role of parents in monitoring the development of students becomes easier even though students have been handed over to schools and boarding schools for their educational progress because information can still be conveyed to student guardians.

CONCLUSION AND RECOMENDATION

Research regarding the connecting web as an information medium for parents/guardians of Wates Pesawat VIP Middle School students shows that this web has great potential in supporting effective communication and delivery of information between schools and parents/guardians of students. Web testing which focused on the usability aspect was carried out on 92 parents/guardians of grade 7 students at VIP Darat Wates Middle School, resulting in several important findings as follows: (1) The results of media validation were 79% in two aspects of testing, use design and visual communication. that this connecting web is suitable for use as an information medium for parents of Wates VIP VIP Middle School students, (2) Results from material expert validation from the material/content aspect are 75%, the linguistic aspect is 85%, the implementation aspect is 75%, and the usability aspect is 80% , then this connecting web is also suitable for use as an information medium for parents of Wates Pesawat VIP Middle School students according to material experts, (3) The practicality of users using the Usefulness aspect test produces a score on the Usefull spec of 90%, the Ease of Use aspect of 77%, the Ease aspect of Learning was 86%, and the Satisfaction aspect was 86%, indicating that the connecting web that was developed was practically used as a source of information for parents of Wates Pesawat VIP Middle School students. So, basically the SMP VIP Wates Pesawat connecting website has shown good performance in terms of usability and ease of use. However, there are several important aspects that need to be improved to ensure this website can meet the information and communication needs of parents/guardians more effectively and comprehensively. By overcoming existing limitations and adding recommended features, this website can become a more reliable and useful tool for guardians/parents of Wates Pesawat VIP Middle School students.

To maximize the use of the connecting web as a medium of information for parents/guardians of Wates Pesawat VIP Middle School students, schools must carry out intensive outreach regarding the existence and function of this web. Parents/guardians need to be given clear and easy to understand guidance on how to access and use the features available on the website. Short training or orientation sessions can be held to ensure all users feel comfortable and are able to get the most out of the web. Apart from that, responsive technical support can help deal with problems that users may encounter.

Schools must also regularly update the content and information on the connecting website. Information regarding school schedules, extracurricular activities, important announcements, and current news must be presented in a

timely and accurate manner. Features such as financial reporting, student attendance, and student health conditions must always be updated so that parents/guardians get the latest and relevant information. Thus, the connecting web can be a source of information that is reliable and always up-to-date.

In order for the connecting web to run optimally, good cooperation is needed between the school and parents/guardians of students. Schools must collect feedback from users periodically to find out the needs and problems faced, and make necessary improvements and developments. With active involvement from both parties, this connecting web can continue to develop and provide maximum benefits as an effective information and communication medium.

FURTHER STUDY

Longitudinal Research: Track the impact of the website over time, conduct a longitudinal study to assess the long-term effects of the connecting website on parental involvement, student academic performance, and communication patterns between the school and parents. This could involve collecting data at regular intervals (e.g., every semester) for a year or more. Examine changes in parent attitudes and behaviors. Investigate how parents' attitudes towards the school and their involvement in their children's education evolve over time as they use the website. This could involve surveys, interviews, and focus groups.

Comparative Studies: Compare the connecting website to other communication methods. Conduct a comparative study to assess the effectiveness of the connecting website in comparison to traditional methods like WhatsApp groups or face-to-face meetings. This could involve measuring parent satisfaction, information access, and communication frequency across different groups. Compare the impact on different parent demographics. Explore how the connecting website impacts parents with different levels of technology literacy, socioeconomic backgrounds, or educational attainment. This could help identify potential barriers and tailor the website to better meet the needs of diverse parent groups.

Impact on Specific Language Skills: Analyze the website's impact on parents' understanding of educational terminology. Assess whether the connecting website helps parents develop a better understanding of educational concepts and terminology used by the school. This could involve pre- and post-tests on educational vocabulary and comprehension. Evaluate the website's effectiveness in facilitating communication in Indonesian.** Examine how the connecting website supports clear and effective communication in Indonesian between the school and parents. This could involve analyzing website content for clarity, accessibility, and appropriate language use.

Student Perception Over Time: Investigate student perceptions of the website's impact on their learning. Conduct surveys or interviews with students to understand how they perceive the website's influence on their learning experience, their relationship with parents, and their overall school experience. Assess student attitudes towards the use of technology in education. Explore student perceptions of the role of technology in education and their preferences

for different communication channels. This could provide valuable insights for future technology-based interventions.

ACKNOWLEDGMENT

Thanks to those who have supported this research, instrument experts, media experts, material experts and parents/guardians of Wates VIP Pesawat Junior High School students. In addition, the author is also grateful to VIP Pesawat Junior High School Wates, Kulon Progo Regency for providing the opportunity to conduct research there.

REFERENCES

- Arif, M., Werdiningsih, R., Karuru, P., Rukhmana, T., Subhan, M., Nurlaila, Widodo, T. W., Rizki, M. Y., Niam, M. F., & Yuminah. (2022). Ilmu Pendidikan. Yayasan Cendekia Mulia Mandiri. https://www.google.co.id/books/edition/ILMU_PENDIDIKAN/3N7gEAAAQBAJ?hl=id&gbpv=1&dq=Dwi+Siswoyo,+dkk.+2013.+Ilmu+Pendidikan.+Yogyakarta:+UNY+Press&pg=PA233&printsec=frontcover
- Cyr, D. (2008). Modeling Web Site Design Across Cultures: Relationships to Trust, Satisfaction, and E-Loyalty. *Journal of Management Information Systems*, 24(4), 47-72. <https://doi.org/10.2753/MIS0742-1222240402>
- Dewantara, K. hadjar. (2013). *Ki Hadjar Dewantara Pemikiran. Konsep, Keteladanan, Sikap Merdeka*. Universitas Sarjanawiyata.
- Dharmayanti, D., Bachtiar, A. M., & Wibawa, A. P. (2018). Analysis of User Interface and User Experience on Comrades Application. *IOP Conference Series: Materials Science and Engineering*, 407, 012127. <https://doi.org/10.1088/1757-899X/407/1/012127>
- Dhofier, Z. (1980). *The Pesantren Tradition: a Study of The Role of the Kyai in The Maintenance of The Traditional Ideology of Islam in Java [The Australian National University (Australia).]*. [https://scholar.google.com/scholar_lookup?title=The pesantren tradition%3A a study of the role of the kyai in the maintenance of the traditional ideology of Islam in Java&author=Z. Dhofier&publication_year=2000&pages=1091-1092](https://scholar.google.com/scholar_lookup?title=The+pesantren+tradition%3A+a+study+of+the+role+of+the+kyai+in+the+maintenance+of+the+traditional+ideology+of+Islam+in+Java&author=Z.+Dhofier&publication_year=2000&pages=1091-1092)
- Fikriyah, S., Mayasari, A., Ulfah, U., & Arifudin, O. (2022). PERAN ORANG TUA TERHADAP PEMBENTUKAN KARAKTER ANAK DALAM MENYIKAPI BULLYING. *Jurnal Tahsinia*, 3(1), 11-19. <https://doi.org/10.57171/jt.v3i1.306>
- Hastasari, C., Setiawan, B., & Aw, S. (2022). Students' Communication Patterns of Islamic Boarding Schools: The Case of Students in Muallimin Muhammadiyah Yogyakarta. *Heliyon*, 8(1), e08824. <https://doi.org/10.1016/j.heliyon.2022.e08824>
- Irwansyah, R. (2021). *Perkembangan Peserta Didik*. Widina Medina Utama.
- Ismail, A., & Kuppusamy, K. S. (2022). Web Accessibility Investigation and Identification of Major Issues of Higher Education Websites with Statistical Measures: A Case Study of College Websites. *Journal of King Saud University - Computer and Information Sciences*, 34(3), 901-911. <https://doi.org/10.1016/j.jksuci.2019.03.011>

- Khder, M. (2021). Web Scraping or Web Crawling: State of Art, Techniques, Approaches and Application. *International Journal of Advances in Soft Computing and Its Applications*, 13(3), 145–168. <https://doi.org/10.15849/IJASCA.211128.11>
- Kuswanto, H., & Dwi Arianti, B. D. (2022). Pengembangan Aplikasi Buku Penghubung Berbasis Web Sebagai Media Interaksi Sekolah - Orang Tua. *Infotek: Jurnal Informatika Dan Teknologi*, 5(1), 167–178. <https://doi.org/10.29408/jit.v5i1.4742>
- Marzuki. (2012). Pendidikan Nonformal. PT Remaja Rosdakarya Offset.
- Rohma, S., Subandowo, M., & Atiqoh, A. (2022). Pengembangan Media Pembelajaran Berbasis Web Model Addie untuk Mata Pelajaran Desain Grafis Percetakan. *Muaddib: Studi Kependidikan Dan Keislaman*, 12(1), 100–110. <https://doi.org/10.24269/muaddib.v1i1.4526>
- Seels, B. B., & Richey. R. C. (1994). *Instructional technology: The Definition and Domains of The Field*. Association for Educational Communications and Technology.
- Siswoyo, D., Rukiyati, R., & Hendrowibowo, L. (2020). Nilai-Nilai dan Metode Pendidikan Karakter di Taman Kanak-Kanak di Banjarmasin. *FOUNDASIA*, 11(1). <https://doi.org/10.21831/foundasia.v11i1.32485>
- Suci, A. A., & Siskawati, F. S. (2021). Analisis Kebutuhan Media Pembelajaran di Masa Pandemi Pokok Bahasan Lingkaran. Seminar Nasional Pendidikan, FKIP UNMA 2021“System Thinking Skills Dalam Upaya Transformasi Pembelajarandi Era Society 5.0.” <https://prosiding.unma.ac.id/index.php/semnasfkip/article/view/581/471>
- Sugiyono. (2013). *Metode Penelitian Pendidikan*. CV Alfabeta.
- Sujana, I. W. C. (2019). Fungsi dan Tujuan Pendidikan Indonesia. *Adi Widya: Jurnal Pendidikan Dasar*, 4(1), 29. <https://doi.org/10.25078/aw.v4i1.927>
- Sulaeman, D. (2022). KOMPARASI PENDIDIKAN NON FORMAL DAN INFORMAL PADA LEMBAGA SATUAN PAUD SEJENIS. *Jurnal Tahsinia*, 3(2), 138–146. <https://doi.org/10.57171/jt.v3i2.332>
- Syaadah, R., Ary, M. H. A. A., Silitonga, N., & Rangkuty, S. F. (2023). PENDIDIKAN FORMAL, PENDIDIKAN NON FORMAL DAN PENDIDIKAN INFORMAL. *PEMA (JURNAL PENDIDIKAN DAN PENGABDIAN KEPADA MASYARAKAT)*, 2(2), 125–131. <https://doi.org/10.56832/pema.v2i2.298>