Journal of English Language and Education
ISSN 2597- 6850 (Online), 2502-4132 (Print)
Journal Homepage: https://jele.or.id/index.php/jele/index
Article

Development of Science Learning Parenting Model for Broken Home Learners through Website Learning Media

https://doi.org/10.31004/jele.v10i1.672
* Sri Endah Rezeki, Rahmad Agung Nugraha, Dewi Apriani Fr[1,2,3]
[1,2,3] Universitas Pancasakti Tegal
Corresponding Author: sriendahrezeki@gmail.com

A B S T R A C T

The purpose of this study was to determine the needs of teachers and students for the development of a parenting model based on website media in improving science understanding and the involvement of broken home students in learning at SMPN 2 Tanjung Brebes, to describe the design of a parenting model that can support science learning for broken home students through the use of website learning media at SMPN 2 Tanjung Brebes and to determine the feasibility of a parenting model through the use of website learning media that can support science learning for broken home students at SMPN 2 Tanjung Brebes and to determine the effectiveness of a website-based science learning parenting model in improving the understanding and involvement of broken home students in science learning at SMPN 2 Tanjung Brebes. This study uses the Research and Development Method which aims to develop a science learning parenting model for broken home students through website media at SMPN 2 Tanjung Brebes. The results of the study indicate that in order to realize the objectives of this study from the results of in-depth research from various parenting model studies in the field of web-based science learning, namely analyzing the needs of teachers and students for the development of a website-based science learning parenting model at SMPN 2 Tanjung, creating a website design for a science learning parenting model to improve science learning achievement at SMPN 2 Tanjung, conducting a validity test on the science learning website, developing a science learning parenting model website using the ADD (Analysis, Design, Development) model at SMPN 2 Tanjung. Based on the results of the analysis, it shows that the needs of teachers and students for the development of media that can be used in learning in class and outside the classroom are very high.

Keywords: *Parenting, Science Learning, Broken Home Students*
Article History:
Received 25th January 2025
Accepted 19th February 2025
Published 20th February 2025

INTRODUCTION

This research is important because it can provide a clear picture of the conditions of students who come from broken homes and how these conditions affect their academic achievement and social development. By understanding these factors, schools can develop more effective support programs, such as counselling, more personalized learning, and parental involvement through digital learning media such as websites. In addition, the results of this study are expected to contribute to educators, parents and policy makers in creating a more inclusive and supportive learning environment for all students, especially those from broken homes. One of the main challenges faced by students from broken homes is the lack of support from parents. In intact families, parents usually play an active role in monitoring their children's learning progress, providing assistance with schoolwork and motivating their children to achieve well. However, in broken home families, this support is often missing or drastically reduced. The absence of one or both parents makes children less likely to get the attention and guidance needed in learning science, which in turn can lead to

difficulties in understanding the concepts taught in class. Thus, this study not only focuses on demographic descriptions, but also highlights the importance of special attention to the social conditions of students' families in an effort to improve the overall quality of education at SMPN 2 Tanjung, Brebes.

At SMPN 2 Tanjung, Luwungbata Village, Brebes District, the challenges in science learning are increasingly complex for students who come from broken home families. Broken home families, characterized by parental separation due to divorce or the absence of one parent due to employment as an Indonesian Migrant Worker (TKI), often create a less supportive environment for children's academic development. This condition has a direct impact on students' learning process, especially in subjects that require consistent focus and emotional support such as science. In addition to the lack of support, the emotional impact of family breakdown is also a big challenge for students. Children from broken homes tend to experience stress, anxiety and emotional instability that affect their concentration during the learning process. Negative emotions arising from family conflicts or feelings of abandonment by parents often make it difficult for students to focus on the subject matter, so their learning outcomes tend to be lower compared to students from stable families.

Learning motivation is also a critical issue for students from broken homes. Without emotional support and encouragement from parents, many students lose interest in learning, feel less motivated to achieve, and ultimately tend to be passive in participating in science learning. This lack of motivation not only affects learning outcomes, but also reduces students' active participation in learning activities that are important for building a deep understanding of science materials.

Based on these problems, this study aims to analyze the specific difficulties faced by students in learning science, and how the lack of parental involvement can exacerbate these conditions. This research is expected to provide deeper insights into the importance of parents' role in supporting children's learning success, as well as identify strategies that can be used to increase parental involvement in the science learning process. The rapid development of technology in recent decades has brought significant changes in various aspects of life, including education. Information and communication technology has opened up new opportunities in the teaching and learning process, allowing access to wider educational resources, more dynamic interactions and more innovative learning methods. One important innovation in the integration of technology into education is the use of websites as learning media.

Education plays a crucial role in shaping the future of the younger generation, but the learning process is often influenced by various factors outside the classroom. One of the factors that influence learning is family conditions, especially in the context of broken home families, which can have a significant impact on students' academic development. On the other hand, with the advancement of technology, learning media such as websites are increasingly popular as tools in education. It is important to explore how these factors interact and influence the effectiveness of learning media in the context of science learning.

Broken home families, often characterized by parental separation or instability in the home environment, can affect many aspects of students' lives, including motivation, concentration and engagement in learning. Students from broken homes often face additional challenges such as a lack of emotional and material support, which impacts their academic outcomes. In the context of science learning, which requires the understanding of complex concepts and experimental skills, these challenges can be compounded without adequate support. Meanwhile, the use of websites as learning media offers great potential to improve student access and engagement. Websites can provide varied, interactive and flexible materials, which can help students understand science concepts in a more enjoyable and effective way. However, the effectiveness of websites as a learning medium can be affected by students' family conditions and the parenting support they receive. Therefore, it is important to identify how family instability and lack of parenting support affect the use and effectiveness of websites in science learning.

This research is important for teachers in understanding how students' family conditions and parenting support affect their success in using web-based learning media. By understanding the challenges faced by students from broken homes, teachers can design more inclusive and adaptive teaching strategies. This research can also assist teachers in providing additional support and making adjustments in learning methods to improve student engagement and understanding. For parents, this research provides insights into how their role in supporting their child's education can affect the effectiveness of learning media. While parents from broken homes may face difficulties in providing support, an understanding of how learning media such as websites can be used effectively may help them to support their children's learning in a more constructive way. This research can also provide information on how parents can participate more actively in their child's education, even in difficult situations. Education policymakers can use the results of this study to design better policies to support students from broken homes. This research can help in identifying specific needs that should be met through policies, such as providing access to technology, digital literacy training and emotional support. By understanding the relationship between parenting, family conditions and the effectiveness of learning media, policymakers can develop more targeted and effective programs to improve educational equity and student academic outcomes.

This research is expected to make a meaningful contribution in addressing the challenges faced by students from broken homes in learning science, as well as optimizing the use of web-based learning media to support their academic success. With a deeper understanding of these factors, more effective and comprehensive solutions can be developed to support students in achieving their full potential. The results of this study are expected to provide deep insight into the influence of parenting on science learning outcomes through website learning media, especially in the context of students from broken home families at SMPN 2 Tanjung, Brebes. The main expectation of this research is expected to provide useful information for teachers, parents, and education policy makers in designing and implementing more effective strategies to support students from broken home families. By understanding the relationship between parenting, the use of web learning media, and science learning outcomes, it is hoped that a more holistic and adaptive approach can be developed to improve the quality of education. The results of this study are expected to assist in identifying ways to increase parental support and utilize web learning media more optimally. This includes developing training programs for parents, providing additional resources, and adjusting learning materials to meet the specific needs of students from broken homes. Improving the Effectiveness of Learning Media: This research aims to provide insight into how website learning media can be integrated more effectively in the science learning process. With the results of this research, it is hoped that ways can be found to improve the features of learning websites to better suit the needs of students who lack parenting support. At the policy level, this research is expected to provide a solid basis for designing more inclusive and supportive education policies. The information from this study can be used to develop policies that take into account the different family conditions of students and ensure that all students, including those from broken homes, have equal opportunities to succeed in their education.

With a deeper understanding of the influence of parenting and the effectiveness of web learning media, this research aims to make a significant contribution to improving education for students at SMPN 2 Tanjung, as well as to support efforts to improve the education system more broadly. However, the effectiveness of this learning media is inseparable from the role of parenting, especially in guiding and accompanying their children in utilizing technology positively. Therefore, it is important to examine how parenting influences science learning for broken home students through website learning media at SMPN 2 Tanjung, Brebes. This research is expected to provide new insights into how the role of parents, despite the condition of an incomplete family, can still have a positive impact on their children's learning outcomes through the use of educational technology.

METHOD

In this study using the Research and Development method which aims to develop a parenting model of science learning for broken home students through website media at SMPN 2 Tanjung Brebes. The research and development process in this study using ADDIE consists of five stages: (1) analysis, (2) design, (3) development, (4) implementation, and (5) evaluation. However, this research only reached the development stage.

To collect data relevant to this research, several data collection techniques will be used including Questionnaires, Interviews Observations. To ensure the validity of the data, this study will use data triangulation, namely by comparing the results obtained from various data collection techniques (questionnaires, interviews, and observations). In addition, the validity of the questionnaire will also be tested through content validity and construct validity by asking for expert opinions (teachers or educational psychologists) regarding the suitability of the questionnaire items with the research objectives. The data analysis technique used by researchers in this study is the collection of all data using the instruments discussed in the data collection instrument. After this instrument was completed, the data obtained was analyzed in accordance with the research design and development methodology. The data collected are quantitative and qualitative data. Research decisions will be based on the results of statistical analysis. Specifically, if the T-test results show a p value <0.05, then the hypothesis stating that there is a significant difference between before and after the application of the web-based learning model is accepted. Based on the regression analysis results, if the effect of the website learning model on science achievement shows a significant value, then the model is considered effective. Observation and interview data will also be considered to support the quantitative findings, providing a deeper understanding of the effect of the learning model on learners' character development.

FINDINGS AND DISCUSSION

This research and development produces a product, namely the Science Learning Parenting Model website for SMPN 2 Tanjung students. Interactive learning parenting model media on this science learning website contains material about parenting and science learning which is presented in the form of text, images, audio, video and equipped with practice questions. This science learning website learning parenting model media has gone through all stages of research and development starting from Analysis. Design, Development.

The first stage is analysis, this stage is carried out to analyze the needs of students in learning and identify problems that arise in the learning process. Activities carried out by researchers at the analysis stage include, needs analysis, material analysis and location selection. The second stage is design, the activities at this stage are designing and preparing learning media by determining users, determining competencies, determining materials. The third stage is development, the activities carried out at this development stage are to realize the product design into the form of a website (finished product) using the facilities provided in the google site software and entered in the domain, then validated by media experts and material expert validation and revision of pregnant product development based on suggestions from experts. The fourth stage is

Implementation, the activity carried out at this stage is to apply the development product that has been validated and revised in the learning process which is attended by 36 students, then students take test questions and fill out a student response questionnaire. The fifth stage is evaluation, the activity at this stage is to assess and improve the product development results based on data analysis and information obtained, teachers and students, so as to produce quality and quality products if the science learning parenting model website is said to be feasible, then the researcher does not need to revise the product and the product

is ready for use, but if the product is not said to be feasible, it must be revised first before it becomes the final product development.

Data on the results of the assessment of the science learning parenting model website media are obtained after going through all the stages of the research above. The assessment of this science learning web media includes 2 aspects, namely, (1) the feasibility aspect and (2) the effectiveness aspect. The results of data analysis on the media feasibility aspect show that the science learning parenting model website is declared feasible and can be implemented in the learning process. The results of data analysis on the aspect of media effectiveness show that the science learning parenting model website is effectively used in improving learning outcomes, based on the overall assessment results from each stage of the research that has been passed, this science learning website is included in the criteria that are feasible and effective for improving learning outcomes.

The science learning parenting model website produced from this research and development is a learning media that is feasible and effective to use in the science learning process. This is in accordance with the opinion of Nienke Nieveen who states that aspects that need to be considered in assessing the quality of a product from development research, namely, feasibility (validity) and effectiveness (effectiveness) The feasibility aspect is reviewed from the feasibility of content and constructs while the effectiveness aspect is reviewed from whether or not the product can achieve the predetermined goals.

Learning media has a significant contribution in improving the quality and quality of learning. The presence of media is very helpful for teachers and students in the science learning process. According to the opinion of Uno and Lamatenggo, the function of learning media in learning is: (1) can make students happy and increase students' interest in participating in the learning process, (2) can present abstract concepts into concrete forms, so that they are easier for students to understand and understand, and (3) students will realize the relationship between learning and the objects around them (contextual).

The science learning parenting model website that has been developed in this research and development has several advantages, namely equipped with relevant images and animations / videos as an explanation of parenting material and science material. The explanation of the material in this learning media uses simple language so that students can understand it more easily. Furthermore, several presentation concepts are presented in explaining the learning material including text with images on each submaterial, as well as videos in explaining the basic concepts and practicum on the material. This science learning parenting model website is also equipped with exercises and evaluation questions to measure the level of understanding of students after learning science material. The evaluation questions are presented in the form of multiple choices and are equipped with a calculation of correct and incorrect scores obtained after students finish working on them. The score results can be used as feedback to measure the level of understanding of students.

CONCLUSIONS

A web-based science learning parenting model is essential for enhancing learning at SMPN 2 Tanjung. The research involved analyzing teacher and student needs, designing a website to support science learning, conducting validity tests, and developing the website using the ADD model. The findings indicate a high demand for interactive multimedia learning tools that engage students, align with basic competencies, and are easy to use. The website developed using Rumahweb and integrated with Google Sites, Google Drive, and Google Forms, is accessible across different devices and operating systems. Designed with an attractive layout and engaging colour composition, the website enhances learning experiences both inside and outside the classroom. Feasibility tests confirm its validity, as expert validators deemed it suitable for educational use. Student response analysis shows a 94% satisfaction rate, categorized as “Very Positive.” Additionally, learning outcome data reveal improved student performance, indicating the website’s effectiveness. The results

suggest that this web-based parenting model significantly enhances science learning achievement. Therefore, integrating such digital platforms into education supports active and engaging learning, making it a valuable tool for both teachers and students in improving science education.

REFERENCES

Aklima, Y., Supriyanto, A., & Antara, U. (2020). Upaya Mengurangi Prokrastinasi Akademik Siswa Melalui Layanan Bimbingan Kelompok (Pada Masa Pandemi Covid-19 Di SMA Negeri 1 Muara Batu). Prosiding Pendidikan Profesi Guru FKIP Universitas Ahmad Dahlan, 6, 919–927.

Aliana, M., Ikhsan, A. R., & Oktoeberza, W. K. (2023). Sistem Informasi Presensi di SMA Negeri 1 Kepahiang Menggunakan Quick Response Code. Rekursif: Jurnal Informatika, 11(2), 111-120.

Anggraini, D., & Sari, D. (2023). *Analisis Pemilihan Karir Remaja dari Keluarga Broken Home*. Jurnal Schoulid, 5(1), 45–50.

Apriliani, S. (2020). Resiliensi dalam Menangani Dampak Anak Broken Home. Skripsi, Bimbingan Dan Konseling Islam (BKI) Fakultas Dakwah Dan Ilmu Komunikasi (FDIK) Universitas Islam Negeri (UIN) Mataram

Ariata, C. (2020). Apa Itu MySQ. https://www.hostinger.co.id/tutorial/apa-itu-mysql

Astuti, D., Supriyanto, E., & Muthoifin, M. (2020). *Model penjaminan mutu ketercapaian kompetensi dasar dalam sistem pembelajaran online pada situasi work From Home (WFH)*. *Profetika: Jurnal Studi Islam*, *21*(1), 129-139.

Ayu Pratiwi, W., & Sulistyowati, R. (2020). Pengaruh Inovasi Produk dan Social Media Marketing Terhadap Sales Performance pada IKM Batik Gedog Kabupaten Tuban."Jurnal Pendidikan Tata Niaga (JPTN) Volume 08 No 01 tahun 2020 ISSN 2337-6078

Bertema.com. (2022). Tujuan Pembelajaran IPA SMP Kurikulum Merdeka. Diakses dari https://bertema.com/tujuan-pembelajaran-ipa-smp-kurikulum-merdeka/

Biznet Gio. (2023). Apa Itu PHP? Pengertian, Sejarah, dan Fungsinya. Diakses dari https://www.biznetgio.com/news/apa-itu-php

Dewi, F. S., Poerbo, H., & Susilowati, M. (2020). Perancangan Sistem Informasi Penjualan Online Distro MD Shoes Berbasis Website. Kurawal-Jurnal Teknologi, Informasi dan Industri, 3(1), 18-27.

Doni, R., & Rahman, M. (2020). Sistem monitoring tanaman hidroponik berbasis IoT (Internet of Thing) menggunakan Nodemcu ESP8266. J-SAKTI (Jurnal Sains Komputer dan Informatika), 4(2), 516-522.

Huda, A., & Ardi, N. (2021). Dasar-dasar Pemrograman Berbasis Python. Padang: UNP Press.

Justino, Wahyu Eko, and Rahmalia Syahputri. "Pemanfaatan Teknologi Location Based Service untuk Pencarian Lokasi Panti Asuhan Berbasis Android." Jurnal Ilmiah Teknologi Informasi Dan Robotika 2.1 (2020).

Katadata. (2022). "Pengertian Website Menurut Para Ahli." Diakses dari https://katadata.co.id/lifestyle/edukasi/6200a2a9697ec/pengertian-website-menurut-para-ahli-beserta-jenis-dan-fungsinya.

Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi. (2022). Buku Panduan Guru Ilmu Pengetahuan Alam (Edisi Revisi). Jakarta: Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi.

Kompas. (2023). Pengertian HTML, Struktur, dan Fungsinya dalam Pengembangan Web. Diakses dari https://www.kompas.com/skola/read/2023/10/18/040000369/pengertian-html-struktur-dan-fungsinya-dalam-pengembangan-web

Manullang, A. H., Aritonang, M., & Purba, M. J. (2021). Sistem Informasi Bimbingan Belajar Number One Medan Berbasis Web. TAMIKA: Jurnal Tugas Akhir Manajemen Informatika & Komputerisasi Akuntansi, 1(1), 44-49.

Meidyan permana putri (2023). Sistem Manajemen Basis Data Menggunakan Mysql. Jakarta. Widina media utama.

Muhammad Ihksan, Herman Susilo, & Nurul Abdillah. (2023). Basis Data 2023: Konsep Dasar Membangun Database. Suluah Kato Khatulistiwa.

Muhyidin, M., Munthe, I., & Sari, D. (2020). Evaluasi Situs Web Perpustakaan Universitas Medan Area Menggunakan Metode Webqual. Jurnal Ilmiah Tanra, 5(2), 123-135. Diakses dari https://ojs.unm.ac.id/tanra/article/view/29458

Nugraha, Rahmad Agung, I Nyoman Sudana Degeng, Fattah Hanurawan, Tutut Chusniah.2016. Process of Self Regulated Learning an Student's Strategic Studies Activities in Learning Environment. Education in the 21th Century: Responding to Current Issues. International Conference On Education 2016. Universitas Negeri Malang

Nugraha, Rahmad Agung, 2019. Model – Model Self Reglated Learning Dalam Meningkatkan Prestasi Akademik Siswa.Tegal: Badan Penerbit Universitas Pancasakti Tegal.

Neneng Rachmalia Feta. (2020). Sistem Basis Data. Academia.edu.

Nurhasanah, A., & Indrajit, R. E. (2021). Parenting 4.0: Mengenali Pribadi dan Potensi Anak Generasi Multiple Intelligences. Yogyakarta: Penerbit Andi.

Rahman, A., & Lestari, S. (2021). "Analisis Revisi Taksonomi Bloom dalam Kurikulum 2013: Studi Kasus di Sekolah Menengah Atas". Jurnal Kurikulum dan Pembelajaran, 9(1), 45-58.

Slameto. (2020). Belajar dan Faktor-Faktor yang Mempengaruhinya. Jakarta: Rineka Cipta.

Sibero, A. (2020). Internet: Jaringan Komputer Global dan Dampaknya. Jakarta: Penerbit Pustaka

Staditek. (2023). Apa Itu PHP: Pengertian, Sejarah, Fungsi dan Sintak Dasarnya. Diakses dari https://www.staditek.id/insight/php-adalah/

Sugiyono. (2022). Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta.

Susilowati, Y. (2019). Pengertian Website Menurut Para Ahli dan Sejarahnya. Diakses dari https://www.impactly.id/blog/pengertian-website-menurut-para-ahli-dan-sejarahnya/