Development of a web-based athletic sports learning model in sports talent schools

Desarrollo de un modelo de aprendizaje deportivo basado en la web en escuelas de talentos deportivos

Authors

Irfandi [1]
Heny Setyawati [2]
Harry Pramono [3]
Rumini [4]

[1] Universitas Negeri Semarang (Indonesian)

Corresponding author:
Heny Setyawati
henysetyawati@mail.unnes.ac.id

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Abstract

Introduction: The background of this research is that especially for sports talent school students need additional training techniques, especially in the morning, many students lag behind in lessons, especially in athletic lessons. In addition, students have to take lessons at the same time and place as regular students.
Objective: The purpose of this study is to support the quality of this learning in order to make it easier for each student to follow the lagging learning, especially athletic learning material.
Methodology: The method used was research and development, 10 stages. The subjects 37 students (N37) in one class and 15 teachers (N15). The data analysis technique in this study is to use a quantitative approach and a qualitative approach by conducting validity tests, reliability tests and normality tests.
Results: The results of the study have succeeded in making a learning website based on the athletic learning education platform with reference to world athletics, this is to support the quality of learning, make it easier for physical education teachers both online and offline.
Discussion: Creating a learning website based on an athletic learning education platform with reference to world athletics.
Conclusions: In conclusion, building the resulting website can certainly make it easier so that it can be implemented by sports talent school students and physical education teachers to support the quality of learning in accordance with the times and technology. This means that all learning both theory and practice will be packaged in a learning website that is very easy to implement.

Keywords

Learning, atletics sport and website.

Resumen

Introducción: El trasfondo de esta investigación es que, especialmente en el caso de los alumnos con talento deportivo, necesitan técnicas de entrenamiento adicionales, sobre todo por las mañanas, muchos alumnos se quedan rezagados en las clases, especialmente en las de atletismo. Además, los alumnos tienen que asistir a las clases a la misma hora y en el mismo lugar que los alumnos normales.
Objetivo: El propósito de este estudio es apoyar la calidad de este aprendizaje para facilitar a cada estudiante el seguimiento del aprendizaje rezagado, especialmente el material de aprendizaje atlético.
Metodología: El método utilizado fue el de investigación y desarrollo, en 10 etapas. Los sujetos 37 alumnos (N37) de una clase y 15 profesores (N15). La técnica de análisis de datos en este estudio es utilizar un enfoque cuantitativo y un enfoque cualitativo mediante la realización de pruebas de validez, pruebas de fiabilidad y pruebas de normalidad.
Resultados: Los resultados del estudio han logrado hacer un sitio web de aprendizaje basado en la plataforma de educación de aprendizaje de atletismo con referencia al atletismo mundial, esto es para apoyar la calidad del aprendizaje, facilitar a los profesores de educación física tanto en línea como fuera de línea.
Discusión: Creación de un sitio web de aprendizaje basado en una plataforma educativa de aprendizaje atlético con referencia al atletismo mundial.
Conclusiones: En conclusión, la construcción de la página web resultante sin duda puede hacer que sea más fácil para que pueda ser implementado por los estudiantes de la escuela de talentos deportivos y profesores de educación física para apoyar la calidad del aprendizaje de acuerdo con los tiempos y la tecnología. Esto significa que todo el aprendizaje tanto teórico como práctico estará empaquetado en un sitio web de aprendizaje muy fácil de implementar.

Palabras clave

Aprendizaje, atletismo y sitios web.

Introduction

The direction of technology application in sports is increasingly vital, (Rizal et al., 2022)improving educational outcomes and processes, (Botagariyev et al., 2024). Various learning technologies, including smart school apps and multi-media tools, (Souza de Carvalho et al., 2023)facilitate increased engagement, (Kuspanov et al., 2024)administrative efficiency and communication between stakeholders, (Yaakop et al., 2023). The following section outlines key aspects of the integration of these technologies in the educational domain, (Pascual Galiano et al., 2023). The development of web-based athletics learning in schools has gained significant traction, (Ubaydullaeva et al., 2024)demonstrating effectiveness in improving student engagement and learning outcomes, (Turdaliyev et al., 2024). Research shows that web-based learning media, (Guillén & Sandoval, 2021)especially in physical education subjects such as volleyball, athletics and soccer have been validated as highly feasible and effective, (López Sánchez et al., 2022)with significant improvements in student performance observed in experimental classes compared to control groups, (García-heras et al., 2023). Various studies highlight the effectiveness and feasibility of web-based learning media, especially in sports disciplines such as volleyball and athletics, (Franco et al., 2023) and (Imteyaz Shahzad et al., 2023).

This transition to a digital platform not only increases student engagement but also facilitates better assessment and talent identification, (fadhili & Nugroho, 2024). Other research results also suggest that the creation of a website-based talent identification assessment system for athletics has proven to be useful in assessing and differentiating the potential of students, (Leao & Lorente-Catalán, 2024)receiving high validation scores from experts, (Luna-Villouta et al., 2023). Learning website technology can also increase student engagement, (Turdaliyev et al., 2024)learning technology, (Fuentes et al., 2024) such as YouTube and interactive applications, can significantly increase student interest and motivation in learning, (Vargas Castro et al., 2024). Digital learning platforms provide a variety of quiz and leaderboard features, (Thu et al., 2024)then foster a competitive yet collaborative learning atmosphere, administrative efficiency the application of learning technology streamlines administrative tasks, (Puhka et al., 2022)such as attendance tracking and event scheduling, (Imteyaz Shahzad et al., 2023)allowing educators to focus more on the teaching aspect, (Agustino & Erlangga Agustino Landiyanto, 2018). Overall, these developments highlight the promising role of web-based platforms in promoting the education and development of athletic learning in schools, (Indarto et al., 2024).

Sport talent schools (Prieto-ayuso et al., 2020)play an important role in the development of athletic ability among students, (López Sánchez et al., 2022)as evidenced by various previous studies, (Lovell, 2017). Sports talent school is a high school that accepts and accommodates a number of students who are talented and excel in sports, (Puhka et al., 2022)based on the results of the initial case study in the field revealed that students mostly come from the middle class and require thorough learning, and require a period of training center (TC) while they are still students, while the school still provides face-to-face learning (offline), (Wijaya et al., 2024). The fundamental problem that often occurs in the field, especially in sports gifted schools where there are still many students who lag behind following learning, especially athletic learning, because students are required to practice extra, especially every morning, while also at the same time and day must follow class learning like students in general. Circumstances like this often make students miss learning, unable to achieve great minimal completeness, especially in athletic learning and even many do not attend school. While the purpose of athletic learning itself is that students must understand movement techniques, performance, speed elements, kinesthetics and be able to perform movements properly and correctly. Seeing from the results of previous research as has been produced by several previous researchers, the researchers tried to produce a digital learning platform in the field of website-based athletics, namely to increase the understanding of sports talent school students, making it easier for physical education teachers to teach, namely through a website-based athletic sports learning program specifically for athletic sports numbers running, jumping and throwing.

From the explanation above, it is clear that there are several main potential problems that cause learning to be difficult to reach, unable to match students in general to achieve athletic sports learning goals as expected: student learning outcomes are not optimal, learning outcomes have not been achieved and lack of understanding, mastery of student skills in practicing athletic sports movements. To overcome these problems, researchers feel the need to develop media, website-based athletic learning applications that match the character of students, and website-based athletic learning needs to be designed,

presented more effectively and interestingly. This form is considered important, more suitable for students. However, to prove this, a research and development needs to be carried out.

The purpose of this study is to help, make it easier for students to follow Physical Education learning, especially in following Athletic learning material both face-to-face and virtual. Then with this learning website it can make it easier for every student to follow the learning that is left behind, especially athletic learning material and students can easily understand every aspect of the movements displayed by the teacher, because on the website there are already features - learning support features, teaching material modules, lesson plans, learning outcomes, images, learning tutorial videos and zoom meeting rooms that can be accessed by students. This research provides solutions and problems for students who miss learning, especially students in sports talent classes, so that students can take part in learning like students in general, enjoy access to learning online and offline so that it does not interfere with training time, especially in the morning so that they can maintain academic and non-academic achievements. Despite the progress, challenges remain in ensuring equitable access to technology and training for educators, especially on the issue of time with limited learning resources. Addressing these disparities is critical to maximizing the benefits of web-based athletics learning in schools.

Its use in the present day that Web-based athletics learning has emerged as an innovative approach to improving educational outcomes in physical education especially in athletics learning materials. This method utilizes technology to create an interactive and engaging learning environment, facilitating better and interactive understanding and skill acquisition among students. Utilizing a project-based learning model, the web-based platform can improve students' competencies in various subjects, including athletics learning. While the integration of web-based learning in athletics shows promise, challenges such as access to technology and the need for workshops, teacher training remain important considerations for successful implementation

Method

Participants

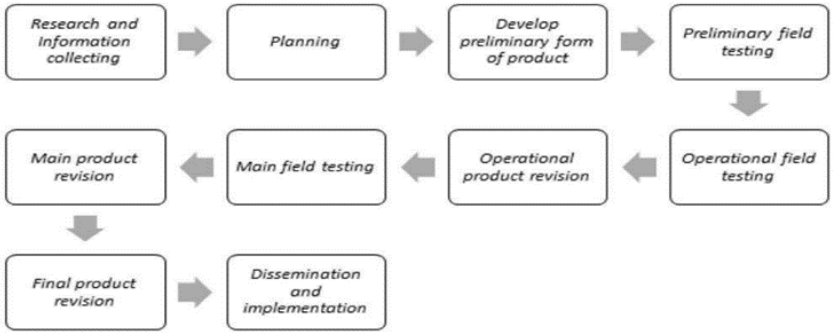
The sampling technique in this research and development uses the Total Sampling technique. Total sampling is a sampling technique in which the number of samples is the same as the population. Research with a population of less than 100 students, so the sample size is 37 students (N37). The sample used in this study in accordance with the above criteria amounted to 37 students (N37) from one class and 15 teachers (N15).

Procedure

This study uses research and development (R&D), by focusing and identifying potential problems, conducting a literature review, (Umar et al., 2023)designing the product, validating the design, and developing the product, (Kerres & Bedenlier, 2020)creating a web-based learning application product, (Agustino & Erlangga Agustino Landiyanto, 2018).

The Borg and Gall model is a method used to develop more detailed steps and then organize them in ten steps, (Kerres & Bedenlier, 2020). In the Borg and Gall model, the development process is not only to develop existing products, but also to discover knowledge or answers to practical problems, (Blad et al., 2022). The Borg and Gall model has quite detailed and idealized steps, (Bojko et al., 2018). These steps can be simplified into four stages without reducing the value of development research, (Umar et al., 2023).

Figure 1. Steps of Development research Borg and Gall, (GALL, 1989).



As for the steps of the research flow of the Borg and Gall model are as follows:

1. Research and Information Collecting

   Learner analysis aims to determine each learner's characteristics and needs ranging from competencies to be achieved, learner attitudes, media selection and language used in the learning process. By knowing all of these things, product design and development will be able to adjust learners, (Umar et al., 2023).

2. Planning

   The next stage is to proceed to the second stage, which is planning the research, planning. Research and development research planning includes: including formulating the objectives of the research, estimating funds, energy, time, and formulating clarification of the researcher and the forms of participation in relation to the research, then skills and expertise related to the problem, determining the objectives to be achieved at each stage, and if possible / necessary a limited feasibility study is carried out, (Umar et al., 2023).

3. Develop Preliminary form of Product

   The next stage is to determine the product design of the application model to be developed, develop the initial form of the product, namely developing the initial form of the product to be produced, then determining the research facilities and infrastructure needed during the research and development process, (Umar et al., 2023).

4. Preliminary Field Testing

   This step was conducted for the initial field trial on a limited scale (expert review). Involving as many as 6-9 subjects. This step includes: initial field testing of product design, limited in terms of both the substance of the design and the parties involved, initial field testing, carried out repeatedly so as to obtain a feasible design both in terms of substance and methodology, data collection and analysis can be done by interview, observation, or questionnaire, (Umar et al., 2023).

5. Main Product Revision

   This step is an effort to make improvements to the initial product based on the results of the initial trial. This improvement may be done more than once, according to the results shown in the limited trial, so that the main product draft (model) is ready to be tested more widely. The evaluation carried out is more at the stage of evaluating the process, so that improvements are made internally, (Umar et al., 2023).

6. Main Field Testing

   This step is carried out is the stage of wider product trials. This step includes: testing the effectiveness of the product, product design, testing the effectiveness of the design, generally using the experimental technique of the repetition model. The results of the field test obtained a more effective design, both in terms of substance and methodology, (Umar et al., 2023).

7. Operational Product Revision

   Product revisions are carried out in accordance with the opinions, suggestions and input of experts, both academic experts, practitioner experts, IT experts to users of learning applications in schools. Experts in providing input suggestions have certainly seen and analyzed well through questionnaires, application operating systems, convenience for users, smoothness and so on, (Umar et al., 2023).

8. Operational field testing

   This step should be carried out using large-scale test stages: namely the step of testing the effectiveness and adaptability of the product design, the results of the effectiveness and adaptability test of the design of potential users of the product, the results of the validation test of the operational model that has been produced and then ready to be applied both in terms of substance and methodology, (Umar et al., 2023).

9. Final Product Revision

   This step stage will certainly be easier and refine the product being developed, refining the final product is deemed necessary to obtain more accurate data on the product to be developed. At this stage the researcher has determined a product whose effectiveness can be accounted for, (Umar et al., 2023).

10. Dissemination and Implementation

    Entering the dissemination and implementation stage, all stages have been completed, the next step is the ongoing revision activities in accordance with the input of the experts, so the researchers try to consult again, then revise again, after a while the researchers test the application again, then disseminate the product. The following is a description of the product achievements that will be produced, in the form of a learning application platform to make it easier for sports teachers to teach, access, related to the preparation of learning video tutorials, (Umar et al., 2023).

Data analysis

Statistical Analysis

1. Validity Test

The validity test is carried out if an item has high validity if the adequate score on the item type has a high alignment with the total score, . This alignment can be interpreted by correlation, so that to determine the validity of test items, the product moment correlation formula can be used, (Kerres & Bedenlier, 2020).

So, to determine whether a test item is valid or not, t_hitung needs to be compared with t_table. Meanwhile, to determine t_table, the product moment correlation table is used by looking at df = N - 2 and a significant level of 5% or 0.05 with the interpretation of t_count≥t_table, then the correlation is significant.

2. Reliability Test

A measuring instrument is said to have high reliability if the instrument provides consistent measurement results. The measurement results are relatively similar if the measurement is carried out on the same subject even though it is carried out by different people and different places. to calculate the variance of each item the formula is used,

3. Frequency Distribution Normality Test

Test the normality of the population frequency distribution in this study using the Lilliefors method approach, Sudjana, (2021: 466) in, (Kerres & Bedenlier, 2020). The normality testing procedure is as follows:

Observation x_1 , x_2 , . . . , x_n made into standardized numbers z_1 , z_2 , . . . , z_n by using the formula: $z_i = \frac{x_i - \bar{x}}{s}$

Desription:

x_i = Value of each case

$\bar{x}$ = Average

s = Standard deviation

For each of these standardized numbers and using the standard normal distribution list, then calculate the odds of F (z_i) = P ($z \leq z_i$)

Next, calculate the proportion $z_1, z_2, \ldots, z_n$ that is smaller or equal to z_i. If the proportion is expressed by

S (z_i) = $\frac{banyaknya\ z_1,\ z_2,\ \ldots,\ z_n,\ yang \leq z_i}{n}$

Calculate the difference F (z_i) - S (z_i) then the absolute price is determined

Take the largest price among the absolute prices of the difference as Lcount.

The data analysis technique used in this research is quantitative analysis technique which is an assessment using numbers. The percentage score is intended to determine the status of something that is percented and presented in percentage form. After obtaining the percentage with the formula, then the results of the feasibility test of website-based athletic learning in this development research are classified into the feasibility or very feasible category using the following criteria skala *Likert.*

The validity test in this study uses mean analysis, standard deviation, and factor analysis using SPSS version 25 and excel format assistance. Because it is expected that website-based athletic learning must be valid and reliable, then testing the reliability value of website-based athletic learning developed can be done with a test-retest test.

Related to the formulation used in this statistical analysis method on website-based athletic learning will be tested on a predetermined sample, then to ensure the development of this website is feasible to use, vaild, reliable and normal, so that learning will be very feasible to disseminate.

Results

The results of the research and discussion will be explained in accordance with the data found in the field, the following is the description of the explanation:

1. Research and Information Collecting

Based on the results of the preliminary stage case study, researchers found several potential problems that need to be researched, namely student website-based athletic sports learning to help, make it easier for students to take part in Physical Education learning, especially in following athletic learning material both face-to-face and virtual, so researchers are more focused on the stages of website development that should not have been developed, there is no website application to make it easier for talented school students to take part in athletic learning to the maximum.

2. Planning

Judging from the preliminary study above, the next research planning is to search, collect data on information sources in the field. Based on the results of observations that have been made by researchers related to website development, there has never been used, although there is still a general nature and has not led to learning athletic sports in gifted schools.

3. Develop Preliminary form of Product

After collecting information from the problems in the field, the researcher designs a product design that is in accordance with these potential problems, then the researcher also analyzes the material in more detail. The results of the analysis are then used as reference material in making and designing products. The needs in designing this product are adjusted to the coefficient and effectiveness. This research product is expected to be a product and innovation for sports talent school students. Then the next stage is designing the product, in this regard product design is an effort to design web-based learning products, national textbooks, intellectual property rights, proceedings. All the frames and needs needed have been designed properly and maximally.

4. Preliminary Field Testing

Product validation is a process of activities to review whether the product design is good, suitable and appropriate, so in this case website-based athletic learning will rationally run more effectively than the old one or not. The products of this research will be validated by a team of experts, academic experts, practitioners, physical education teachers, who have experience to assess new products that have been designed, in order to find out their strengths and weaknesses.

5. Main Product Revision

After the product design is carried out by experts, the weaknesses of the product will certainly be known. These weaknesses will be revised to be even better. The product trial stage is carried out after the product gets an assessment by a team of experts that the product is being developed, it is feasible to be tested in the field. Product trials were conducted in limited groups. The purpose of this trial is to obtain information whether website-based athletic sports learning products are more effective and efficient aimed at gifted school students. The data obtained from the trial results are used as a reference to improve and perfect the website-based athletic sports learning product is the final product stage in this study. By conducting this trial, the quality of the website-based athletic learning products developed has really been empirically tested and feasible to be used as a more effective measuring tool.

6. Main Field Testing

This step is a broader test of the product. This step includes: testing the effectiveness of the product design, testing the effectiveness of the design, generally using experimental techniques for gifted school students. The result of the field test is a more effective design, both in terms of substance and methodology.

7. Operational Product Revision

This step is the second improvement effort after a wider field trial than the previous field trial. Product improvement from the results of a wider field test, it will maximize the product that we will develop, because the previous field trial stage was carried out with a control group. The design used is pre-test and post-test activities. In addition to internal improvement efforts. This product improvement is based on the results evaluation stage so that the approach used is a form of quantitative approach.

8. Operational field testing

This step includes should be done with a large-scale test, test the effectiveness and adaptability of the product design, test the effectiveness and adaptability of the design of potential users of the product, the results of the field test obtained a design model that is ready to be applied, both in terms of substance and methodology.

9. Final Product Revision

This step is more to refine the product being developed, refining the final product is deemed necessary to get more accurate products developed. At this stage, a product value has been obtained whose effectiveness can be accounted for. The results of this final product improvement certainly have generalization value.

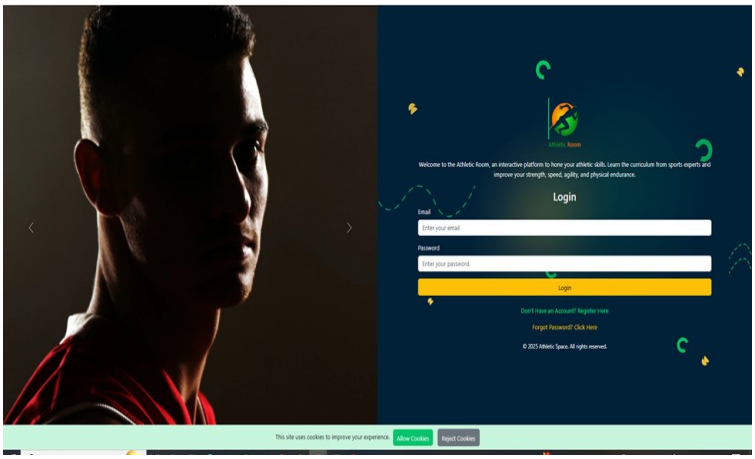
10. Dissemination and Implementation

Present research data through scientific forums, or through mass media. Product distribution must be done after going through quality control. Data analysis techniques, steps in the research and development process known as the research and development circle according to the Borg and Gall version. It

consists of, a) researching the results of research related to the product to be developed, b) developing a product based on the results of research, c) field testing, d) reducing the deficiencies found in the field trial stage.

This research has succeeded in creating and developing a website platform for learning athletic sports at school, then implementing distance learning, the availability of modules, teaching materials, video tutorials for athletic learning and equipped with quizzes to review each student's understanding for the duration of one semester, after that at the end of the semester after taking the quiz, students are required to take a post-test exam, if declared a pass, then the student can download a certificate that has a value according to his competence.

Figure 2. Learning Application



Analysis of Trial Results

Validity test data at the Banda Aceh City Sports Talent School

Students

The data from the test results of the validity of the test on web-based learning applications for Banda Aceh sports talent school students show the results of 0.914 and 0.941, meaning that if r count is more than r table then the data is declared valid for use.

Teachers

The data from the test results of the validity of the test on teachers who use web-based learning applications on Banda Aceh sports talent school teachers show the numbers, 0.607 and 0.758, meaning that if r count is more than r table then the data is declared valid for use.

Banda Aceh City sports talent school reliability test data

Based on the test results data using the help of SPSS version 25 by proving that the reliability test of the Banda Aceh City sports talent school student and teacher tests is at a score of 96.04% while the teacher is at a score of 100.0%, meaning that the results of testing learning application products are declared reliable, and consistent reliability has been proven concretely and accurately.

Table 1. Validity test conclusion

Case Processing Summary			
		N	%
Cases	Valid	27	96.4
	Excluded[a]	1	3.6
	Total	28	100.0

a. Listwise deletion based on all variables in the procedure.

Table 2. conclusion of student reliability test analysis

Case	N	%
Valid	27	96.4
Exclude	1	3.6
T	28	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.756	36

Table 3. Conclusion of teacher reliability test analysis

Case	N	%
Valid	3	100.0
Exclude	0	0
T	3	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
-5.158	28

Based on the test data using SPSS, it proves that the student and teacher test reliability is at a score of 96.04% while the teacher is at a score of 100.0%, meaning that the product test results are declared reliable, and consistent reliability has been proven concretely and accurately.

Table 4. Frequency Distribution Normality Test Students

One-Sample Kolmogorov-Smirnov Test			
		VAR00002	VAR00036
N		28	28
Normal Parameters[a]	Mean	3.6071	155.8214
	Std. Deviation	.83174	9.18958
Most Extreme Differences	Absolute	.374	.230
	Positive	.374	.151
	Negative	-.233	-.230
Kolmogorov-Smirnov Z		1.981	1.215
Asymp. Sig. (2-tailed)		.001	.104

a. Test distribution is Normal.

Based on the data table above, the results of the frequency distribution normality test, the decisions can be made are:

a) If the significance value> 0.05, then the residual value is declared normally distributed

b) If the significance value <0.05, then the residual value is declared not normally distributed,

c) So the decision can be taken is, the results of the test normality test on student learning applications are at a score of 0.104, meaning that the data is normally distributed

Figure 5. Histogram Depedent Variable For Students

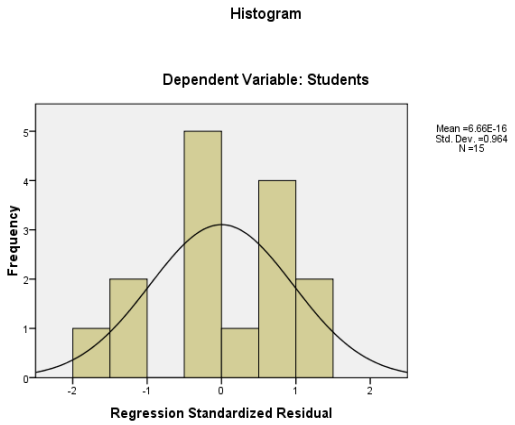


Table 6. Anova test analysis conclusion

ANNOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	239.576	1	239.576	1.999	.181[a]
	Residual	1558.157	13	119.858		
	Total	1797.733	14			

a. Predictors: (Constant), Students

b. Dependent Variable: Teachers

Table 7. Frequency Distribution Normality Test Teachers

One-Sample Kolmogorov-Smirnov Test		
		VAR00001
N		3
Normal Parameters[a]	Mean	3.6667
	Std. Deviation	1.15470
Most Extreme Differences	Absolute	.385
	Positive	.385
	Negative	-.282
Kolmogorov-Smirnov Z		.667
Asymp. Sig. (2-tailed)		.766

a. Test distribution is Normal

Based on the data table above, the results of the frequency distribution normality test, the decisions can be made are:

a) If the significance value> 0.05, then the residual value is declared normally distributed

b) If the significance value <0.05, then the residual value is declared not normally distributed,

c) So the decision can be taken is, the results of the test normality test on student learning applications are at a score of 0.766, meaning that the data is normally distributed.

Figure 4. Histogram Depedent Variable For Teacher

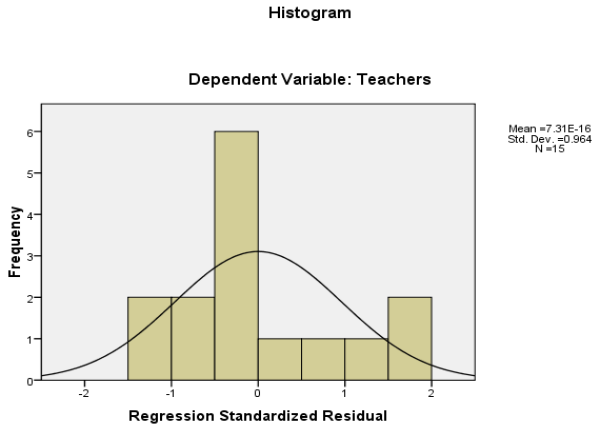


Table 8. Website expert validation results

No	Assessed Component	Indicator	Rating Scale					∑	Means	Criteria
1.	Model and appearance of the website	2	1	2	3	4	5	33	5	Very good
2.	Features available on the website	3	1	0	0	1	5	44	5,66	Very good
3.	Website facilities	2	0	1	1	0	0	34	4,88	Very good
4.	Security features, search mode and protection	3	0	1	1	0	0	42	4,55	Very good
5.	Website model and appearance	4	0	1	1	0	0	22	5	Very good
	Total	14								
	Means								6,50	
	Percentage								81,02%	
			Very Good							

Based on the results of converting the expert validation score data to the classification score tabulation above, it is clear that the average score is 6.50 when viewed in the classification tabulation is in the very

good category. The results of expert validation of the data obtained mean that the results of the development of website-based learning that has been built and has a level of accuracy and accuracy to measure learning based on a website platform that is very good according to the views of developer experts.

Discussion

The development of a website-based athletic sports learning model, (Sartor et al., 2023)namely to produce an athletic learning platform to improve the understanding of sports talent school students and facilitate the performance of Physical Education teachers in teaching, (Retamal-Muñoz et al., 2024)namely through a special athletic sports learning website for athletic sports numbers running, (Alonso-Fernández et al., 2022)jumping and throwing equipped with several features such as: homes, courses, teaching material modules, learning tools, and learning video tutorials, is the result of a needs analysis that has been carried out with several Physical Education teachers, (Damaševičius et al., 2022). This is also supported by the results of research on web-based learning, or e-learning, (Sartor et al., 2023)utilizing digital technology to facilitate education, allowing learners to access materials anytime and anywhere, thereby increasing flexibility and accessibility, (Fuentes et al., 2024). Then the results of the study revealed, the integration of digital technology in secondary school physical education not only increased students' physical activity from mild to moderate to severe levels but also increased academic performance and motivation, (Costa et al., 2024).

On the basis of the results of the needs analysis, it is known that developing web-based athletic learning is considered capable of improving the quality of learning both in terms of theory and practice in the field, (Pascual Galiano et al., 2023)especially students in sports talent schools who often miss learning, as well as to facilitate student learning space can be accessed anytime, anywhere, (Jesiebellin Cabral Abilar et al., 2023). This learning development also facilitates and improves the performance of physical education teachers in carrying out the process of teaching and learning activities in the classroom, because all learning tools such as modules, teaching materials, teaching plans and athletic learning video tutorials can be accessed while teaching anytime and anywhere, (Mokmin, 2020). The website-based athletic learning platform also opens up the knowledge of both teachers and students in following the development of the digital age, (Rockmann & Maier, 2019)this is evidenced by the results of research which states that one of the significant advances is the development of a website-based talent identification assessment system, which effectively analyzes athletic potential in children aged 13-15 years, achieving high validation scores from experts making it an effective method for assessing athletic sports potential in each student, then the results of other studies also corroborate that web-based athletic learning offers many advantages, it may not completely replace traditional training methods, (Damaševičius et al., 2022). Personal interaction and immediate feedback provided by physical education teachers remain important for developing specific skills and fostering motivation in students, (Pikuliak et al., 2022).

The implication of this research is utilizing website technology to provide an understanding, more engaging and interactive learning experience for sport talent school students. Research shows that such web-based learning not only improves knowledge retention but also enhances practical skills in athletic disciplines. Although web-based learning platforms show great promise, there is a need for continuous evaluation to ensure that they meet diverse educational needs and adapt to technological advances. The integration of such tools into the traditional curriculum can face challenges, including resistance from educators and varying levels of engagement from gifted school students.

The novelty in this research is to build, produce learning website-based applications with reference to the world athletics website (world athletics ferderation), there are various supporting features in it, there are also various learning support facilities for students and teachers so that they can carry out online and offline, this is evidenced by the learning website so that it can be accessed through laptop devices, and cell phones, to expand the reach of research results by increasing the number of learning materials in schools, this learning website has been designed in such a way that there are several such as modules, teaching materials, teaching plans and video tutorials. The next step is to disseminate and recommend the results of research to schools, education offices, the wider community, related agencies, and to higher education levels.

This research certainly still has many shortcomings, limitations so that researchers realize the potential for bias or external factors that can affect the data, the level of system protection is still weak, then also for example this teaching website only still discusses learning athletic sports, then still at the high school level, has not discussed other physical education learning materials.

Conclusions

The conclusion in this research study is that researchers have succeeded in creating, building a website-based learning platform so that researchers conclude that, the platform that has been built and developed at this time with reference to the word athletic application is very useful for athletic learning for sports talent school students. The implications of the results of this research in the future can be used by schools, athletic sports clubs, private agencies and other government agencies. In the future this application continues to make improvements, improvements so that it can develop on a website-based learning application platform so that it can be easily accessed via the google play store, downloaded on laptops, gadgets, cellphones and other devices. Expanding the range of research results by increasing the number of subjects in schools. Disseminate research results and recommend research results to related agencies, the wider community, schools, science houses, related agencies and universities in order to use this learning application as a whole.

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Authors' and translators' details:

Irfandi	irfandi86@students.unnes.ac.id	Author
Heny Setyawati	henysetyawati@mail.unnes.ac.id	Author/ Corresponding
Harry Pramono	hpr4mono@mail.unnes.ac.id	Author
Rumini	rumini@mail.unnes.ac.id	Translator