

Integrating Web BAIS to Improve Primary Students' Conflict Resolution Skills in Social Interaction Lessons

Deden Herdiana Altaftazani¹, S. Sapriya², Bunyamin Maftuh³, Mubiar Agustin³

¹IKIP Siliwangi, Indonesia

^{2,3,4} Universitas Pendidikan Indonesia, Indonesia

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Abstract

This study aims to examine the effectiveness of the Web BAIS (Social Interaction Teaching Materials) digital platform in improving students' conflict resolution skills in social studies learning. Students' conflict resolution skills play an important role in their ability to interact, understand, and cooperate with others. The research method used was a pre-experiment with a one-group pre-test & post-test design on 20 elementary school students. The research instruments were a questionnaire validating the feasibility of the web bais and a test instrument based on conflict resolution indicators. The results of the study indicate that the development of the web bais was appropriate and feasible to use based on expert validation results. In addition, the integration of the web bais in social studies learning was able to improve students' conflict resolution. These findings indicate that the use of appropriate and contextual technology in social studies learning can be an effective strategy for developing students' conflict resolution skills.

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Corresponding Author:

Deden Herdiana Altaftazani
IKIP Siliwangi, Indonesia

Email Author: deden@ikipsiliwangi.ac.id

INTRODUCTION

21st century developments require students to not only excel in cognitive aspects, but also have strong social skills to face the complex dynamics of life (Beauchamp & Anderson, 2010). At the elementary school level, children begin to be trained to develop various understandings and habits that will be useful for their future lives (Sekerci & Yilmaz, 2021). One of them is conflict resolution skills, conflict resolution skills are very important skills for elementary school students, because conflict resolution skills are related to a person's ability to understand and interact with other people effectively (Behjat, 2012). In general, conflict resolution is the process of resolving differences or conflicting interests between individuals or groups through peaceful means, such as communication, negotiation, mediation, or collaboration, with the aim of reaching a mutual understanding, maintaining good relations, and preventing the recurrence of similar conflicts.

Conflict resolution skills refer to a process that aims to resolve disputes peacefully by meeting the primary needs and interests of each party involved in the conflict (Nnodum et al, 2016). Interacting with others plays a vital role in the learning process. Through relationships with their surroundings, children can stimulate self-development and strengthen their thinking skills (Abas et al, 2019). Conflict resolution is a systematic process that aims to end or manage conflict through a dialogical and negotiating approach, by seeking to reach a fair and sustainable agreement by fulfilling some or all of the interests and needs of the parties involved (Al-Gerafi et al., 2024; Bakken & Buhaug, 2021; Türk, 2017). In its application, it requires sensitivity to changes in social situations, the ability to solve problems wisely, prevent conflict in interactions, and have clear and effective communication skills (Dolati & Tahriri, 2017; Tirri, K., Nokelainen & Komulainen, 2013). Conflict resolution in elementary school environments is a social learning process that aims to help students resolve differences of opinion or disputes peacefully through open communication, mutual respect, and seeking joint solutions, while still paying attention to the needs and interests of each party fairly (Gabrielle, 2018; Gena & Jarra, 2023; Yavuzer, 2012). Therefore, conflict resolution skills include social sensitivity, social insight, and social communication, which can be used to improve the ability to interact and adapt to the surrounding environment (Al-Kalbani & Al-Wahaibi, 2015).

The goal of conflict resolution is to end and constructively manage disputes to achieve a mutually beneficial outcome. This process involves the application of various strategies, such as negotiation, mediation, and arbitration. In the context of elementary school education, principals and teachers play a strategic role in managing conflict and fostering discipline within the school environment (Kalagbor & Nnokam, 2015). An ideal school environment fosters students' understanding of the dynamics of conflict, trains them to respond positively to conflict, and develops effective resolution strategies. This allows students to avoid disputes and build more harmonious interpersonal relationships within the school environment. The nature of conflict, whether positive or negative, is not determined by its presence, but rather by how individuals or groups respond to it. Appropriate responses can redirect conflict into a means of constructive competition or a process that supports self-development (Demirci & Arslan, 2020).

In training students' conflict resolution skills, there are many indicators that need to be understood. Indicators of conflict resolution skills include: the ability to identify the causes of conflict, effective communication skills, listening skills, emotional management skills, solution-finding skills, negotiation and compromise skills, and the ability to maintain positive post-conflict relationships (Bayraktar & Yilmaz, 2016; Bolton, 2009; Rahayu et al., 2021; Sa'odah et al., 2020). Conflict resolution skills are crucial in educational settings because they contribute to positive classroom dynamics and support students' social and emotional development. Research shows that developing interpersonal intelligence in students can lead to better academic outcomes and improved social interactions (Rumble et al., 2010) (Chen & Xu, 2021).

Therefore, to develop conflict resolution skills in students, it is necessary to implement learning media in the learning process to enhance conflict resolution skills. Technology integration is one potential solution to address this challenge. Educational technology designed with a participatory and collaborative approach can create interactive and enjoyable learning spaces (Cheah, et al. 2025) and facilitate the development of students' interpersonal intelligence. One innovation that has been developed is Web Bais (Social Interaction Learning Materials), a web-

based digital platform containing learning activities (Chukwuere, 2021). This study aims to examine the extent to which the use of Web Bais in social studies learning can improve elementary school students' conflict resolution skills. This research also represents a concrete effort to bridge the need for 21st-century social skills development through the use of contextual and child-friendly educational technology (Martingano et al., 2022).

METHOD

This study aims to analyze the effect of web-based integration on elementary school students' conflict resolution skills. This study used a quantitative approach with a pre-experimental design, specifically a one-group pretest-posttest design. This design involves one group of subjects being given treatment after an initial measurement (pretest), then repeated measurements (posttest) are conducted to determine any changes after the treatment. This approach is considered suitable for use in this study because it allows researchers to measure the effectiveness of the treatment directly on the same group, while also providing an initial overview of the potential influence of the intervention without the need for a control group, which is often difficult to implement in an elementary school context (Ross & Morrison, 2013). The research schematic can be seen below:

Table 1. Pre-Experimental Research Schem

Group	Pre-Test	Treatment	Post-Test
Experiment	O1	X	O2

This research was conducted at an elementary school in Bandung Regency. The study was conducted over four sessions, each lasting two hours. The subjects were 20 fourth-grade students at an elementary school in Bandung Regency. Subjects were selected using a purposive sampling technique, based on the consideration that the class had supporting technology facilities and teachers were accustomed to using digital learning media. Fourth-grade students were selected because social interaction material was studied in that class and the learning process was not accustomed to using website-based learning media. The instruments used in this study were a feasibility validation questionnaire and a conflict resolution ability test developed based on indicators of the ability to identify the causes of conflict, the ability to use good communication, the ability to listen, the ability to manage emotions, the ability to find solutions, the ability to negotiate and compromise, and the ability to maintain positive relationships after conflict. The explanation of each indicator is as follows:

Table 2. Conflict Resolution Indicators Explained

No	Conflict Resolution Indicators	Explained
1	The ability to identify the causes of conflict	The skill to understand the root of the problem objectively so that the solution can be directed at the main source of the conflict
2	The ability to identify the causes of conflict	The ability to convey ideas, feelings and interests clearly, openly and without offending other parties

3	The ability to use communication well	Paying full attention to the person you are speaking to to understand their perspective, emotions and needs without judging
4	The ability to listen	To control negative feelings such as anger or disappointment so as not to worsen the conflict
5	The ability to manage emotions	Creative efforts to find alternative solutions that are acceptable to all parties
6	The ability to find solutions, and compromise	The willingness to negotiate and make concessions to reach a fair agreement
7	The ability to maintain positive relationships after conflict	The skill to restore and maintain harmonious interactions so that the same conflict does not recur

The data obtained from the pretest and posttest results were analyzed quantitatively using statistical tests:

1. A normality test was conducted to ensure that the data were normally distributed before conducting parametric tests.
2. A paired-sample t-test was used to determine the significance of the difference between pretest and posttest scores. This test was conducted at a significance level of 0.05.

RESULTS AND DISCUSSION

Results

The results of this study explain the suitability of Web Bais as a learning medium for social interaction and its influence on students' interpersonal intelligence, as follows.

1. Suitability of Web Bais Learning Media

Based on the validation results of the Web Bais media with 10 teachers, it can be seen that the scores given tend to be positive, although with variations in assessments for each aspect. For the content/material suitability aspect, the majority of teachers (5) gave a score of 4, but one teacher still gave a relatively low score, with a score of 2. This indicates that the material is substantively good, but needs improvement in terms of content depth or relevance to achieve more equitable quality. For the presentation aspect, scores ranged from 3–4, indicating that the media is sufficiently clear and structured, although the presentation could still be made more engaging and interactive.

The language aspect received a moderate average score, with the majority of teachers scoring a score of 3. This can be interpreted as meaning that the language used in the media is communicative, but needs to be refined to be simpler, more consistent, and appropriate to students' level of understanding. In terms of appearance, the scores also indicated a good level of feasibility, although more innovative visual design development is still needed. Finally, the aspect of conflict resolution skills development received a relatively high rating, thus concluding that this media has strong potential in supporting students' social skills learning. With an average score of 3.51, the

Web Bais media is classified as Feasible, but still requires optimization in the content, language, and presentation aspects to be more effective images.

2. The influence of web-based media on elementary school students' conflict resolution abilities.

The results of the study on the influence of web-based media on elementary school conflict resolution skills, after conducting a paired sample t-test with a significance level of 0.005, are as follows:

Table 3. Paired sample t-test

Paired t-Test	Sig. (2-tailed)	Assumption	Interpretasi
Pretest vs Posttest	0.00005	Data is normally distributed ($p > 0.05$)	There is a significant difference between the pretest and posttest scores. This means that the use of web bais has an impact on improving students' conflict resolution abilities.

Based on the results of the t-test, it can be concluded that the integration of technology through web bais media has proven effective in improving the conflict resolution skills of elementary school students. This web bais media is able to be an educational tool that supports the achievement of student competencies in understanding and applying the concept of social interaction in students.

Table 4. Average Score and N-Gain

Test	Score	Interpretation
Pretest Average	55,5	Enough category
Posttest Average	72,4	Medium category
N-Gain Average	0,35	Moderate improvement

Based on the results of the N-Gain calculation, an average value of 0.35 was obtained. This value is included in the moderate category, which shows that after implementing learning using web bais media, there is an increase in conflict resolution abilities in the moderate category. Although the increase is not high, these results show that web bais media has a fairly effective impact in helping students understand conflict resolution abilities.

Table 5. Average score of conflict resolution capability indicator

Procedure of test	Indicators of Conflict Resolution						
	A	B	C	D	F	F	G
Pretest	0,85	0,8	0,88	0,7	0,55	0,51	0,6
Post Test	0,95	0,95	0,95	0,88	0,9	0,82	0,85
Difference	0,1	0,15	0,07	0,18	0,35	0,31	0,25

The results of the analysis of the average score per indicator of conflict resolution ability showed an increase in all aspects assessed after learning using web bais. The indicators with the highest scores were in the aspects of the ability to identify the causes of conflict, the ability to use communication well and the ability to listen which reflected an increase in students' understanding of the importance of interaction with others. Overall, the average indicator score showed that web bais-based learning was quite effective in improving the conflict resolution abilities of elementary school students.

Discussion

The results of this study indicate that web-based learning media, namely Web Bais, is considered suitable for use in social interaction learning in elementary schools. Furthermore, its use has been proven to improve students' interpersonal intelligence. Based on assessments by 10 teachers, Web Bais received an average score of 3.51, which falls into the "suitable" category. This means that in terms of content, appearance, language, and presentation method, this media is suitable for use in the learning process. Good learning media must be able to convey material in an engaging and easily understood manner by students. Interestingly, Web Bais was also designed with an interactive multimedia approach. This aligns with Mayer's theory (Mayer, 2024), which explains that learning with a combination of images, text, and interaction can help students understand material better because it engages their various cognitive channels (Thao et al., 2022).

Statistical tests revealed a significant difference between students' pretest and posttest scores after using this media ($p = 0.00005$). The average student score increased from 55.5 to 72.4, with an N-Gain score of 0.35, which falls into the moderate improvement category. The results indicate that Web Bais media has a positive impact on students' conflict resolution skills, but it is not yet optimal. This media has potential for use, but still requires the implementation of reinforcement strategies or content refinement to be more effective. In the context of an evaluation program or learning innovation, this category indicates that the innovation is worthy of continuation, but still has room for improvement.

Although the results indicate that the use of Web Bais media has a positive impact on students' conflict resolution skills—as evidenced by the increase in average pretest to posttest scores and an N-Gain value of 0.35, which falls into the moderate improvement category—a number of factors contribute to the media's use not reaching optimal levels. First, insufficient learning time is a major obstacle; limited time allocated in the curriculum and class hours are insufficient for in-depth exploration of Web Bais material and discussions among students (Diarsini et al., 2022). Second, students' unfamiliarity with web-based learning also limits its effectiveness. Some students are unfamiliar with online learning mechanisms that require high levels of initiative, self-control, and virtual interaction. Lack of digital skills or low technological literacy make it difficult for students to access various features, follow online instructions, or optimally utilize online interactions (Hongsuchon, 2022). Third, infrastructure and technical constraints pose obstacles. Unstable internet connectivity, low bandwidth speeds, and inadequate hardware or software (e.g., slow computers, mobile devices with limited specifications) (Cahyadi et al., 2022). Fourth, media content or design that still needs improvement also slows optimization. Some materials on Web-Based may lack variety, interactivity, or contextualization to students' experiences. Therefore, even though the media is generally good, its impact is not optimal (Erizar et al., 2024).

However, web-based learning not only helps students understand the material but also provides a space for them to hone their conflict resolution skills (Chuan et al., 2024), such as empathy, cooperation, and conflict management. This supports Gardner's theory. (Behjat, 2012), which emphasizes the importance of conflict resolution development (González-Treviño et al., 2020) and (Kashani-Vahid et al., 2017), especially in the context of primary education. The aspects that experienced the highest improvement were the ability to collaborate and manage conflict—two crucial aspects of students' social lives. This improvement also demonstrates that social

interaction is key to shaping children's understanding and abilities, particularly in the aspect of student conflict resolution (Moreno and Mayer, 2007).

CONCLUSION

The Web Bais learning media has proven suitable for use in social interaction learning in elementary schools. In addition to meeting the standards for appropriate content, appearance, and presentation, Web Bais media can also significantly improve students' conflict resolution skills, particularly in collaboration and conflict management. However, these findings are preliminary and derived from a limited research scope. Therefore, further research with a broader scope is needed, such as testing the effectiveness of Web Bais on a larger sample or comparing it with other learning approaches. This is important to strengthen the validity of the findings and ensure that Web Bais is truly effective in various learning contexts in elementary schools.

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