

Research Article

Impact of Digital Iqro Qur'anic Learning on Emotional Regulation of Dyslexic Elementary Students in Banten

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Abstract: This research aims to examine the influence of Al-Qur'an learning strategies utilizing the Digital Iqro platform on the emotional regulation of elementary school students with dyslexia in Banten. The study adopts a quasi-experimental design combined with a quantitative approach, involving 100 participants selected through purposive sampling to ensure relevance and appropriateness to the research objectives. Data collection was conducted using structured questionnaires, and the responses were analyzed with the assistance of SPSS to generate statistical insights into the effects of different learning strategies. The results indicate that within the conventional learning group, direct Al-Qur'an learning strategies accounted for 31% of the variance in students' emotional regulation, while indirect strategies demonstrated a slightly higher contribution of 40%. On the other hand, in the digital learning group, the direct strategy exerted a more limited effect, influencing emotional regulation by 14%, whereas the indirect strategy exhibited no observable impact, registering a 0% contribution. These findings highlight that conventional approaches to Qur'anic learning remain more impactful in shaping emotional regulation among dyslexic learners. However, the presence of a moderate effect in digital-based direct learning suggests that Digital Iqro carries potential as a complementary educational tool, particularly when integrated thoughtfully into broader pedagogical practices. The study underscores the importance of aligning instructional methods with students' unique needs, especially for those with learning difficulties, while also acknowledging the opportunities provided by digital innovation. Furthermore, the research provides meaningful implications for educators and policymakers, reinforcing the necessity of balancing traditional and digital strategies to optimize learning outcomes in the era of Society 5.0, where technological advancement and human-centered education are expected to coexist in harmony.

Keywords: Digital Iqro; Digital Learning; Dyslexic; Emotional Regulation; Qur'anic Learning.

1. Introduction

The learning of the Al-Quran for dyslexic students, coupled with the monitoring of their emotional state, serves as a crucial research object in the field of inclusive religious education. Dyslexic students, despite having normal intelligence, face significant challenges in reading hijaiyah letters, which can negatively impact their psychological well-being. Historically, previously used methods in Al-Quran instruction have tended to be conventional, such as lectures, Q&A sessions, and demonstrations. The strength of the conventional method lies in its ability to foster active interaction between teachers and students. However, its fundamental weakness is that this approach is often not adapted to the specific needs of dyslexic students, resulting in learning strategies being equated with those for regular students. Consequently, this method becomes less effective and can trigger learning difficulties. As an alternative hypothesis, a digital learning approach that integrates text, audio, and visual elements offers potential as a more engaging, effective, and memorable method for helping dyslexic students learn hijaiyah letters (Nirwana & Purwanto, 2022).

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The research problem is rooted in two main issues. First, the high prevalence of dyslexia globally and nationally estimated to be 10%, or about 5 million students in Indonesia indicates an urgent need for effective learning strategies (Suparno et al., 2023). Second, the academic difficulties experienced by dyslexic students are often accompanied by serious socio-emotional problems, such as anxiety, low self-esteem, aggressive behavior, and social withdrawal. Students tend to conceal their negative feelings, which, if not addressed, can hinder their personality development. The existing research gap is the lack of in-depth studies that specifically investigate the effectiveness of Al-Quran learning strategies using digital Iqro on the emotional regulation of primary school dyslexic students.

To address this problem, the proposed solution and approach in this study is to implement an Al-Quran learning strategy using digital Iqro media and to compare its effectiveness with conventional methods through a quasi-experimental study design. This approach aims to measure not only the improvement in Al-Quran reading ability (Wafa 1 assessment) but also its influence on students' emotional monitoring. The main contributions of this study include: theoretically, providing empirical evidence on the relationship between digital learning interventions and the cognitive and affective development of dyslexic students; and practically, producing a learning model that can be adopted by teachers, schools, and policymakers to support inclusive education in the Society 5.0 era.

2. Literature Review

2.1. Teaching and Learning Strategies

Learning strategies are very important to increase student activity and provide a positive impact on learning outcomes. According to experts, a learning strategy is a plan or series of activities designed to achieve certain educational goals. Teachers play an important role in determining strategies according to the level of cognitive development of students. This strategy includes learning methods, materials, and procedures that are used regularly to provide an effective and efficient learning experience (Panggabean & Sufriadi, 2021).

Oxford (1990) classified language learning strategies into two main categories: direct strategies and indirect strategies. Direct strategies involve active use of language and are divided into memory strategies—helping students collect and remember new information, cognitive strategies—helping in understanding and using language in various situations, and compensatory strategies—helping students use language even with limited knowledge. Then indirect strategies support learning indirectly and are divided into metacognitive strategies—helping students plan, monitor, and evaluate their learning; affective strategies—related to managing emotions and motivation; and social strategies—involving interaction with others to support learning. Therefore, through several expert opinions on learning strategies, learning strategies can be interpreted narrowly as methods and techniques to achieve learning objectives, while more broadly, it encompasses a comprehensive approach that involves planning, implementing, and evaluating learning activities to achieve learning goals.

2.2 Modern Methods Learning

Modern learning methods are innovative approaches that combine various tactical, technical, and practical techniques to help students apply, appreciate, and interpret knowledge. This method emphasizes new concepts and the use of modern media, where students play an active, creative, and critical role, without only relying on teachers. In the digital era, advances in information and communication technology have had a major impact on education by expanding access to learning resources and increasing interactivity between teachers and students. The development of information and communication technology has changed the way we access, process, and disseminate information in education. Educational technology such as computers, the internet, and digital applications are now important elements in the modern education system because they can improve the quality of teaching and learning (Bahani & Kholid, 2024).

The Association for Educational Communication and Technology (AECT) summarizes that instructional technology is a subset of educational technology, based on the concept that instruction is a subset of education. Instructional technology is a complex process involving people, procedures, ideas, devices, and organization, and managing solutions to those problems in situations in which learning is purposive and controlled. Therefore, the effective use of educational technology can improve the learning experience and outcomes, as well as help students face future challenges. For dyslexic students, digital applications, assistive software,

and adapted audio-visual technology provide great support in overcoming reading and writing difficulties. This technology also makes learning more interactive and fun.

2.3 Conventional Methods of Learning

In conventional learning, conventional learning places students as passive recipients of information with one-way delivery such as lectures, questions and answers, and assignments. Students usually listen while taking notes. The main characteristics of this method include prioritizing memorization, emphasizing numeracy skills, focusing on results rather than processes, and teacher-centered teaching (Rusman, 2017). The conventional learning model is still used in education despite experiencing several changes due to the development of the times. This model remains teacher-centered, emphasizes results rather than processes, and places students as objects of learning. As a result, students find it difficult to express their opinions. The methods used usually include lectures, assignments, and exercises as a form of repetition and deepening of material.

In addition, conventional learning model include preparation, presentation, correlation, generalization, and application. In this model, teachers play an active role in the entire learning process, from preparing teaching materials to delivering material to students. Meanwhile, the advantages of conventional learning are knowledge is easier to memorize by students, knowledge is easier to understand by students, students play an active role in the learning process, and knowledge is not easily lost because it is recorded and remembered. While the disadvantages of conventional learning are it requires more time because students need to take notes, students who are weak in writing skills will fall behind, and it requires many learning aids such as stationery and books. Therefore, it can be said that the learning method refers to the way of implementing the learning plan through practical activities to achieve learning objectives. In the context of learning the Quran, the Iqro method is used as an approach that emphasizes direct reading gradually, starting from the easiest level to the more difficult level.

2.4 Al-Qur'an Learning with the Iqro Method

Reading is an important aspect of the Al-Quran; even the first verse revealed is the command to read (Surah Al-Alaq:1). In a narrow sense, reading means understanding the meaning of the writing, while in a broad sense it involves critical and creative understanding of the reading and evaluation of its content and effects. Learning the Al-Quran, some of the commonly used methods are the Jibril method, the Iqro method, the Al-Bagdadi method, the Qiro'ati method, and the Ummi method. Therefore, this study focuses on how to learn the Al-Quran using the iqro method.

The Iqro' method consists of six volumes that are arranged practically and systematically, facilitating the process of learning the Qur'an in a short time. Its advantages include ease of carrying, the availability of technical instructions for teachers, and requiring students to be more active. Students are introduced to the hijaiyyah letters from the beginning and learn individually with the teacher. Learning takes place gradually from easy to difficult and is suitable for all ages (Izzan & Saepudin, 2018). Based on the above disclosure, the Iqro' method Volumes 1 to 6 can help dyslexic students who have difficulty reading, spelling, and writing. With a systematic and gradual approach, this method helps students recognize letters and combine sounds more effectively. In addition, the use of learning media based on Android applications also supports the 21st-century learning process in the digital era (Society Era 5.0).

2.5 Wafa Iqro' Android Application

The Wafa Android application was developed by Wafa Indonesia and is listed in the education category, with the current version being 1.3, released on 01/10/2019. This application can be used independently at home with parental guidance so that it is easier and faster to receive Quran lessons using the Wafa method at school. The Wafa Android application has the advantage of being more interactive with an animated touch; there is audio read with the best makhroj, complete with a quiz game to make self-assessment more interesting, and there are no ads. The Wafa method is also a comprehensive right-brain Quran learning method that refers to the quantum teaching concept with the TANDUR learning pattern, namely Grow, Experience, Name, Demonstrate, Repeat, and Celebrate. The Wafa method of learning is implemented integrally, covering 5T, which include Tilawah (reading and writing the Quran), Tahfidz (memorizing Quranic verses), Translating (translating Quranic verses),

Tafhim (understanding the meaning of Quranic verses), and Tafsir (interpreting the meaning of Quranic verses). The Wafa method in learning to read and write (Tilawah) the Quran is a major child-friendly program. This method uses 5 book volumes, each containing 44 pages, along with ghorib and tajwid topics. Then, Wafa Digital Iqro' is an Al-Quran learning application that uses the Iqro' method digitally. This method helps students recognize hijaiyah letters, read syllables, and master tajwid. Through modern technology, this application offers interactive, easily accessible, and user-friendly learning.

2.6 Wafa Iqro' Book (Conventional)

The Wafa guidebook is designed with pictures and movements to improve students' memory in memorizing the Al-Quran [8]. The Wafa guidebook consists of 5 volumes, each 44 pages. This book contains elements of ghorib and tajwid and emphasizes the aspects of reading and understanding. This structured approach helps children recognize the hijaiyah letters and master tajwid gradually, according to their needs in learning the Al-Quran correctly. Furthermore, the Wafa book consists of 5 volumes with structured content: Volume 1 discusses makhorijul huruf, Volume 2 reading two letters and long harakat, Volume 3 reading sukun and tasydid, Volume 4 fawatihis suwar, and Volume 5 reading qolqolah, clear reading, and punctuation. In addition, there is also a Tajwid Book that contains the rules of tajwid and a Ghorib Book that contains ghorib reading. The Wafa method offers a systematic and child-friendly approach, which supports personal and gradual learning. This method has great potential in producing a generation of literate and knowledgeable Al-Quran readers.

2.7 Emotional Regulation

In the digital era, emotional intelligence has become an important skill for adapting to change and managing complex social interactions. It helps individuals build meaningful relationships, collaborate productively, and face challenges with empathy and wisdom. Therefore, education and training in developing emotional intelligence are very important. Daniel Goleman's theory emphasizes that emotional intelligence involves the ability to understand, control, and manage one's own and others' emotions. It also involves the ability to adapt behavior according to situations to achieve success in social relationships and personal life. According to Goleman, emotional intelligence consists of five main dimensions: self-awareness, emotional management, self-motivation, empathy, and social skills. To express emotions appropriately, emotional control is very important. Hurlock emphasized that emotional control does not mean suppressing emotions but acting rationally and realistically. This control refers to the control of motor or verbal behavior over socially unacceptable emotions. Gross also introduced the theory of emotion control through cognitive and behavioral strategies, such as reappraisal, to reduce emotional intensity. Lazarus and Folkman added that emotional control depends on how an individual appraises a situation, whether it is a threat or an opportunity, and its impact on personal well-being.

Therefore, good emotional regulation is important for mental and physical health. Individuals who are able to control their emotions tend to cope better with stress and reduce the risk of anxiety and depression. They also act more rationally in difficult situations and build more positive social relationships because they are able to handle conflict and interact calmly. Emotional control is also part of emotional regulation, which refers to an individual's efforts to manage the generation, experience, expression, or response to emotions. It can occur before or after emotions are generated, through cognitive or behavioral strategies. The ability to control emotions has an important impact on individual health and well-being. Regarding dyslexic students/children, it was stated that dyslexic students often experience emotional disorders such as irritability due to frustration with their own abilities and the environment. This anger can arise when their goals are repeatedly thwarted or as a response to physical or psychological pain. However, these emotional disorders can be overcome through appropriate treatment such as anger management, which is emotional therapy that helps children identify the cause of anger and how to overcome it. Based on several previous studies on the emotional management of dyslexic children, emotional disorders are a significant issue among dyslexic children. These disorders have a negative impact on their social and emotional development and academic achievement. Therefore, anger management approaches are seen as effective in helping them overcome negative emotions. The findings of a study in the Journal of Learning Disabilities in 2014 show that dyslexic children often experience high emotional stress, which can affect their mental well-being. Emotions are part of daily human

experience and are influenced by various factors. Failure to control emotions not only affects physical and psychological health but can also disrupt the learning process, especially among dyslexic students.

2.8 Conceptual Framework of the Study

The conceptual framework of this study uses the Oxford Learning Strategy Model [4] and Goleman's Emotional Intelligence Theory [9]. to study the emotional control of dyslexic students. The Oxford Model divides learning strategies into two main types: direct strategies involving memory, cognitive, and compensation and indirect strategies involving metacognitive, affective, and social. The combination of these two theories helps to understand how learning strategies can support the emotional control of dyslexic students. In addition, this conceptual framework also involves digital applications, which are now modern learning methods that encourage innovation, including in religious aspects such as learning the Quran. Digital Quran software is increasingly growing and can be accessed via computers, smartphones, or tablets, which makes learning more practical. However, conventional learning models are still used in schools, where teachers teach using books without utilizing the latest technology and do not adapt the approach according to the characteristics of the subject matter.

Therefore, this study contains several main variables, namely independent variables containing learning strategies, which are divided into direct strategies, namely memory and cognitive. While indirect strategies include metacognitive, social, and affective. Meanwhile, the mediating variables in this study are modern methods: the Wafa 1 digital application and conventional methods: the Wafa 1 handbook. Finally, the dependent variable in this study is the emotional supervision of dyslexic students, including self-awareness, self-regulation, self-motivation, empathy, and social skills.

Therefore, based on the literature review and research questions that have been developed, there are four (4) null hypotheses that have been formed in this study, which are as follows:

- Ho1: There is no significant influence on the assessment of iqro reading through Wafa 1 learning media as a mediator between the direct Al-Quran learning strategy and emotional regulation based on the conventional group in dyslexic students in Banten Province primary schools.
- Ho2: There is no significant influence on reading assessment of iqro reading through Wafa 1 learning media as a mediator between the Al-Quran learning strategies indirectly on emotion regulation based on the conventional group in dyslexic students in Banten Provincial Primary Schools.
- Ho3: There is no significant influence on iqro assessment of iqro reading through Wafa 1 learning media as a mediator between direct Al-Quran learning strategies and emotional regulation based on digital groups in dyslexic students at Banten Provincial Primary Schools.
- Ho4: There is no significant influence on the assessment of iqro reading through Wafa 1 learning media as a mediator between the Quran learning strategies and emotional control based on digital groups in dyslexic students in Banten Provincial Primary Schools.

3. Method

3.1. Study Design

This study is an experimental study in the form of a quasi-experimental study based on the Posttest-Only Nonequivalent Groups Design through a quantitative approach that aims to see the Al-Quran learning strategy using digital IQRO on the emotional control of dyslexic students in primary school from the experimental group (digital method) and then compare the learning strategy with the control group (conventional method). Sugiyono [10] stated that the design of this study involves giving treatment to the experimental group and comparing the post-test results with the control group.

3.2. Study Population

The population of this study was dyslexic students aged 7-9 years old in Madrasah Ibtidaiyah (MI) in two zones of Banten Province. The sample selection was made purposively (purposive sampling). According to Chua, purposive sampling in quasi-experiments is used to obtain a group of respondents who have certain characteristics according to the

researcher's wishes. Use quasi-experiments is to evaluate the effectiveness of a study when respondents cannot be randomly distributed. Therefore, a total of 100 study samples were selected from Madrasah Ibtidaiyah (MI) schools from two zones in Banten Province. For each of the first zones involved in this study, there were 50 dyslexic students from the digital learning group and 50 dyslexic students from the conventional learning group for the second zone in Madrasah Ibtidaiyah (MI) Primary Schools in Banten Province.

3.3. Data Collection

The instrument used in this study is a questionnaire in the form of an assessment form. The researcher uses the type of instrument in the form of an assessment form to see the learning strategies and emotional control of dyslexic students. Then the digital application Iqro Wafa 1 and the book Iqro Wafa 1 are used as learning media for dyslexic students to obtain the data required in this study. The study instrument used contains four parts of the assessment form, namely part (A), which is the Al-Quran learning strategy consisting of direct learning strategies and indirect learning strategies. Part (B) is modern learning media using the Android application Iqro Wafa 1 (digital) and an assessment form for dyslexic students. Then part (C), which is conventional learning media using the Al-Quran or the book Iqro Wafa 1 and an assessment form for dyslexic students. Finally, part D is the assessment form for emotional control/emotional control of dyslexic students at the Primary School of Madrasah Ibtidaiyah (MI) in Banten Province.

3.4. Validity and Reliability

Before conducting the actual study, the researcher implemented the validity of the assessment form in this study to ensure the scale size that needs to be measured. To obtain the validity of the idea and content, the researcher used the opinion of Gable and Wolf (1993), who suggested that the assessment of the content should be positive and negative. Therefore, to implement the validity of the instrument in this study, five expertlecturers at universities in Indonesia were involved to provide comments in terms of the use of words, sentences, and language and to confirm the content of each construct. Furthermore, in this study, a reliability test was also conducted to measure the reliability of the instrument by using a pilot study on 30 respondents from a group of dyslexic students based on the Iqro digital learning method (Wafa 1 application) and 30 respondents from a group of dyslexic students based on the conventional learning method (Iqro Wafa 1 book) to confirm the question items in the internal consistency measurement, which aims to test the validity and reliability of the questionnaire in this study. Cronbach's alpha is a numerical value of reliability, which, if the value is close to 1, means that the reliability of the questionnaire item is high and good. The reliability of the questionnaire item is low if the Cronbach's Alpha value is below 0.6. Based on the results of the Cronbach's alpha value study in Table 3.1 in this study, it can be said that the entire instrument used has a sufficient or acceptable level of reliability in this study.

Table 1. Cronbach's alpha values of study variables

Study Variables	Cronbach's Alpha
Conventional Method Evaluation Group (Wafa Book 1)	0.69
Digital Method Evaluation Group (Wafa Application 1)	0.89
Conventional Method Direct Learning Strategy Group (Wafa Book 1)	0.86
Digital Method Direct Learning Strategy Group (Wafa Application 1)	0.90
Indirect Learning Strategy Group Conventional Method (Wafa Book 1)	0.86
Digital Method Indirect Learning Strategy Group (Wafa Application 1)	0.81
Emotion Regulation Group Conventional Methods (Wafa Book 1)	0.78
Digital Method Emotional Regulation Group (Wafa Application 1)	0.89

3.5. Data Analysis

Before conducting data analysis, an important step involving the verification and assessment of data reliability in this study has been to implement the hypothesis test assumptions of the study, namely the normality test, linearity test, multicollinearity test, and homogeneity

of variance test (Levene's test). Using Statistical Packages for the Social Sciences (SPSS) version 26. To answer the research question, multiple regression tests were used in this study to determine the influence of reading assessment through Wafa 1 learning media as a mediator between the Al-Quran learning strategy indirectly on emotional regulation in dyslexic students based on the conventional group and the digital group in Banten Province Primary Schools.

4. Results and Discussion

4.1. Findings of the Study on the Evaluation of Iqro Wafa 1 Reading Among Al-Quran Learning Strategies (Direct and Indirect) Against Emotional Regulation Based on Conventional Groups

This section discusses the findings of the study from reading iqro wafa 1 on emotion regulation between direct and indirect Al-Quran learning strategies based on the conventional group, which has two (2) research hypotheses (Ho1 and Ho2) in this study. This section discusses the research findings from the first research hypothesis (Ho1) regarding there is no significant influence on the assessment of iqro reading through the wafa 1 learning media as a mediator between the Al-Quran learning strategy directly on emotion regulation based on the conventional group in dyslexic students in Banten Provincial Primary Schools.

The results of the first-level regression test show that the direct Quran learning strategy has a moderate influence on the emotional regulation of dyslexic students in primary schools from the conventional group in Banten Province, with an R value of 0.34. The R-squared value is 0.11, indicating that 11% of the emotional regulation variable can be explained by the learning strategy. This indicates that the direct Quran learning approach has the potential to contribute to the emotional management of dyslexic students. The data of this test result is shown in Table 2.

Table 2. R-value of Direct Al-Quran Learning Strategy Against Emotional Regulation from Conventional Group

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.34 ^a	0.11	0.09	0.21

Based on Table 3, the results of the regression test at the first stage show that there is a significant influence between the direct al-Quran learning strategy and the emotional regulation of dyslexic students, with a p-value of 0.00, which is below the significant level $\alpha = 0.05$. The results show that the hypothesis Ho1 at the first stage is rejected because the influence of the learning strategy is only at a moderate level on the emotional regulation of dyslexic students at Madrasah Ibtidaiyah (MI) in Banten Province.

Table 3. T-values of direct Quran learning strategies against emotional regulation from the conventional group

Variable	Standardized Coefficients Beta	t	Sig.
(Constant)		9.94	0.00
Direct Learning Strategies	0.34	2.52	0.01

Significance at 0.05 level

Next, Figure 1 shows the conventional group mediation model for the second-level hypothesis of (Ho1).

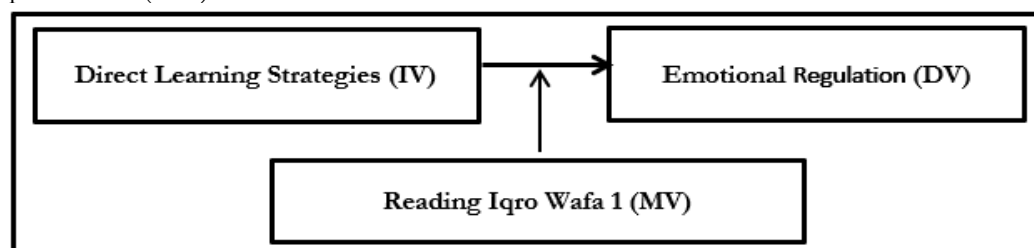


Figure 1. Mediation model of direct Al- Quran learning strategy, iqro wafa 1 recitation and emotional regulation in the conventional group.

Based on Table 4 in the second stage of the study for hypothesis 1 (Ho1), after including the variable of Iqro reading assessment through learning media *Wafa 1* as a mediating variable,

it was found that there was a high influence ($R = 0.65$) between direct learning strategies on the emotional regulation of dyslexic students in Madrasah Ibtidaiyah (MI) Primary Schools in Banten Province. The R^2 value of 0.42 indicates that 42% of the variation in emotional regulation can be explained by the model. The presence of the mediating variable *Wafa 1* is proven to strengthen the influence of direct learning strategies on the emotional regulation of dyslexic students by 31% in the conventional group.

Table 4. R-value of direct Al-Quran learning strategy between reading iqro wafa 1 against emotional regulation from conventional group

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.65 ^a	0.42	0.40	0.17

Next, based on the results of the multiple regression test at the second stage in Table 4 in this study, it was rejected because the significant value found was $p = 0.00$, which is smaller than the set significant level of $\alpha = 0.05$. Therefore, it can be concluded that overall, with the variable of reading iqro through the Wafa 1 learning media as a mediating variable, it can strengthen the influence of direct learning strategies on emotional regulation in dyslexic students based on the conventional group in the Madrasah Ibtidaiyah (MI) Primary School in Banten Province in this study.

Table 5. T-value of direct Al-Quran learning strategy between reading iqro wafa 1 against emotional regulation from conventional group

Variable	Standardized Coefficients Beta	t	Sig.
(Constant)		10.46	0.00
Direct Learning Strategies	0.09	0.79	0.43
Reading Iqro Wafa 1	0.60	5.04	0.00

Significance at 0.05 level

Next, the findings of the second study hypothesis (Ho2) regarding the assumption that there is no significant influence on the assessment of iqro reading through wafa 1 learning media as a mediator between the indirect Quran learning strategy and emotional regulation based on a group of dyslexic conventional students in Banten Regional Primary Schools. Table 6 shows that at the first level, the R value found based on the test results is $R = 0.14$, which is at a low level of influence between the indirect Quran learning strategy and the emotional regulation of dyslexic students from the conventional group in Banten Province Madrasah Ibtidaiyah (MI) Primary Schools. Based on the results of the R-square value in the first regression test, $R = 0.02$, it can be said that the direct Quran learning strategy is at a low level of influence on the emotional regulation of dyslexic students in the 2% percentage category in Banten Province Madrasah Ibtidaiyah (MI) Primary Schools in this study.

Table 6. R-value of indirect Quran learning strategy against emotional regulation from conventional group

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.14 ^a	0.02	0.00	0.22

Then, Table 7 also shows that the results of the regression test at the first stage are at an insignificant level between the indirect Al-Quran learning strategy on emotional regulation in dyslexic students, which is $p = 0.30$ with the set significant level of $\alpha = 0.05$. Therefore, based on the results, it can be said that the indirect Al-Quran learning strategy on emotional regulation in dyslexic students based on the conventional group at the Madrasah Ibtidaiyah (MI) Primary School in Banten Province shows a low influence in this study.

Table 7. T-values of indirect Quran learning strategies against emotional regulation from the conventional group

Variable	Standardized Coefficients Beta	t	Sig.
(Constant)		8.14	0.00
Indirect Learning Strategies	0.14	1.03	0.30

Significance at 0.05 level

Next, below shows the mediation model in Figure 2 based on hypothesis (Ho2). The conventional group mediation model in the study is as follows:

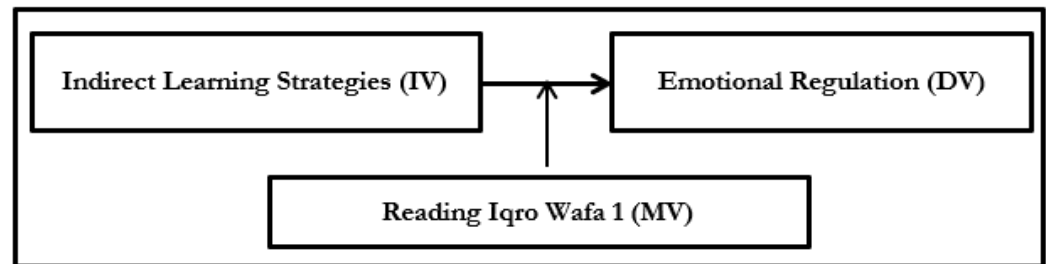


Figure 2. Mediation model of indirect Al- Quran learning strategy, iqro wafa 1 recitation and emotional regulation in the conventional group.

Table 8 shows that the results of the multiple regression test for the second stage of the test for indirect learning strategies after the presence of the variable of reading Iqro through the Wafa 1 learning media as a mediating variable on the emotional regulation of dyslexic students based on the conventional group show that there is a fairly high influence ($R = 65$) between indirect learning strategies on the emotional supervision of dyslexic students. This is evidenced by the R-square value of 0.42, which is 42%. Therefore, based on the results of the study, it can be said that with the presence of the variable of reading iqro through the Wafa 1 learning media as a mediating variable, it can strengthen the level of influence of the indirect Quran learning strategy on emotional regulation of dyslexic students based on the conventional group in the Madrasah Ibtidaiyah (MI) Primary School in Banten Province, which is 40% in this study.

Table 8. R-value of indirect Quran learning strategy between reading iqro wafa 1 against emotional regulation from conventional group

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.65 ^a	0.42	0.39	0.17

Based on the results of further studies in Table 9, it is shown that in this study it is rejected because the significant value found is $p = 0.00$, which is smaller than the set level of $\alpha = 0.05$. Therefore, overall, with the presence of the Iqro reading assessment variable through the Wafa 1 learning media as a mediator variable, it can strengthen the influence of learning strategies indirectly on the emotional regulation of dyslexic students based on the conventional group at the Madrasah Ibtidaiyah (MI) Primary School in Banten Province in this study.

Table 9. T-value of indirect Quran learning strategies between reading iqro wafa 1 against emotional regulation from conventional group

Variable	Standardized Coefficients Beta	t	Sig.
(Constant)		9.05	0.00
Indirect Learning Strategies	-.05	-.44	-.65
Reading Iqro Wafa 1	0.66	5.70	0.00

Significance at 0.05 level

4.2. Findings of the Study on the Evaluation of Iqro Wafa 1 Reading Among Al-Quran Learning Strategies (Direct and Indirect) Against Emotional Regulation Based on Digital Groups

This section discusses the findings of the study from reading iqro wafa 1 on emotion regulation between direct and indirect Al-Quran learning strategies based on the digital group, which has two (2) research hypotheses (Ho3 and Ho4) in this study. Table 10 shows the results of the study from the regression test at the first stage on the hypothesis (Ho3) from the assessment of iqro reading through the Wafa 1 learning media as a mediator between the direct Quran learning strategy on emotional regulation based on the digital group in dyslexic students. Based on the results of the study at the first stage before the existence of the iqro reading assessment media, the R value of $R = 0.38$ is at a moderate (sufficient) level of

influence between the direct Quran learning strategy and emotional regulation in dyslexic students based on the digital group. The R-squared value in this first regression test is $R = 0.14$, which is 14% in this study.

Table 10. R-value of direct Quran learning strategy against emotional regulation from digital group

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.38 ^a	0.14	0.12	0.18

Based on Table 11, it shows a significant level between the direct Al-Quran learning strategy and emotional regulation in dyslexic students, which is $p = 0.00$ with a significant level set at $\alpha = 0.05$. Therefore, the results of this study are rejected because the p-value is smaller than $\alpha = 0.05$. Therefore, based on the results, it can be said that the direct Al-Quran learning strategy on emotional regulation in dyslexic students from the digital group has a moderate (sufficient) influence in this study.

Table 11. T-value of direct Quran learning strategies against emotional regulation from digital group

Variable	Standardized Coefficients Beta	t	Sig.
(Constant)		13.75	0.00
Direct Learning Strategies	0.38	2.86	0.00

Significance at 0.05 level

After the first-stage analysis, a multiple regression test at the second stage of the hypothesis (Ho3) was also conducted in this study to determine whether there is a significant influence on Iqro reading through Wafa 1 learning media as a mediator between direct Quran learning strategies and emotion regulation based on digital groups in dyslexic students. Figure 3 shows the mediation model in this study.

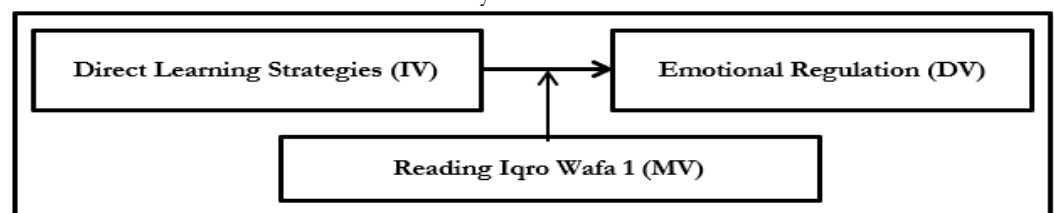


Figure 3. Mediation model of direct Al- Quran learning strategies, iqro wafa 1 reading and emotional digital group

In the multiple regression test in Table 12, the results of the second stage study showed that after the existence of the Iqro reading variable through the Wafa 1 learning media as a mediating variable, the results of the study showed that there was a sufficient or moderate influence ($R=0.38$) between direct learning strategies on the emotional regulation of dyslexic students based on the digital group. The R-squared value was 0.14, which is 14%, where the influence of the results of the study at the first stage or before the presence of the Iqro assessment variable through the Wafa 1 teaching media in this study cannot be strengthened.

Table 12. R-value of direct Quran learning strategy between reading iqro wafa 1 against emotional regulation from digital group

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.38 ^a	0.14	0.12	0.18

Next, based on the results of the second multiple regression test, Table 13 shows that the results of this study are accepted because the significant value found is $p = 0.94$, which is greater than the set significance level of $\alpha = 0.05$. Therefore, it can be concluded that overall, with the presence of the moderator variable, namely reading Iqro through the Wafa 1 learning media, it cannot strengthen the influence of direct learning strategies on the emotional regulation of dyslexic students based on the digital group in this study.

Table 13. T-value of direct Quran learning strategies between reading iqro wafa 1 against emotional regulation from digital group

Variable	Standardized Coefficients Beta	t	Sig.
(Constant)		10.57	0.00

Direct Learning Strategies	0.38	2.83	0.00
Reading Iqro Wafa 1	0.00	0.06	0.94

Significance at 0.05 level

The next section discusses the study on the influence of iqro reading through wafa 1 learning media as a mediator between indirect Quran learning strategies on emotional regulation based on the digital group from hypothesis (Ho4) in this study. Table 14 shows the R value based on the test results is $R = 0.01$ which is at a very low level of influence between indirect Quran learning strategies on emotional regulation of dyslexic students for the digital group. The R-square value in the regression test at this first level is $R = 0.00$, so it can be said that indirect Quran learning strategies are at a very low level of influence on emotional regulation of dyslexic students which is at the 0% percentage category in this study.

Table 14. R-value of indirect Quran learning strategy against emotional regulation from digital group

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.01 ^a	0.00	-.02	0.20

Next, the results of this study are also proven based on the test results in Table 15, which are the results of the first-level regression test study, by showing a non-significant level between the indirect Al-Quran learning strategy on the emotional control of dyslexic students, which is $p = 0.90$, and the significant level set is $\alpha = 0.05$. Based on these results, it can be said that the indirect Al-Quran learning strategy on the emotional regulation of dyslexic students from the digital group is at a very low level of influence in this study.

Table 15. T-value of indirect Quran learning strategies against emotional regulation from the digital group

Variable	Standardized Coefficients Beta	t	Sig.
(Constant)		9.45	0.00
Indirect Learning Strategies	0.01	0.11	0.90

Significance at 0.05 level

This section shows the second-stage multiple regression test of the hypothesis (Ho4) in Figure 4, which is the mediation model in this study.

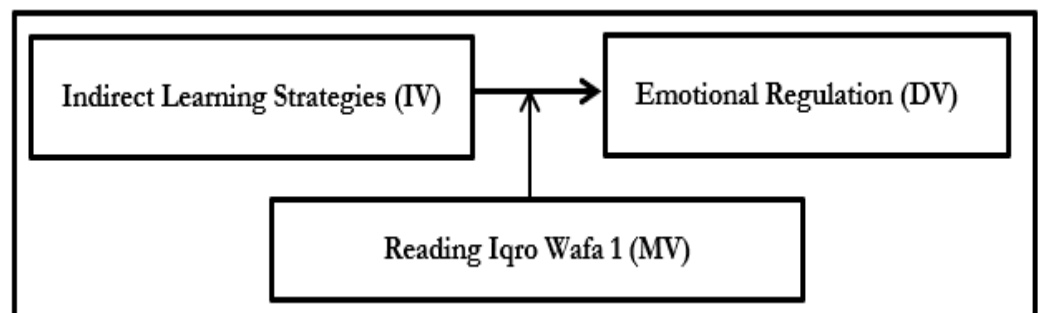


Figure 4. Mediation model of indirect learning strategies, reading iqro wafa 1 digital group

Table 16 shows the test results for the study hypothesis (Ho4) from the second level of influence after the presence of the Iqro reading assessment variable through the Wafa 1 learning media as a mediating variable, the study results show that there is a very low influence ($R = 0.01$) between indirect learning strategies on emotional regulation in dyslexic students based on the digital group with the R Square value found to be 0.00, which is 0%, which shows that there is no increase or strengthening of the influence with the Iqro reading variable through the Wafa 1 learning media on the indirect Quran learning strategy on the emotional regulation of dyslexic students based on the digital group in this study.

Table 16. R-value of indirect Quran learning strategy between reading iqro wafa 1 against emotional regulation from digital group

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.01 ^a	0.00	-.42	0.20

Meanwhile, Table 17 shows the second-stage regression test from the study hypothesis (Ho4), showing that there is no significant difference between the indirect Al-Quran learning strategy and the emotional regulation of dyslexic students after the presence of the iqro wafa 1 reading assessment, which is $p = 0.95$ with a significant level set at $\alpha = 0.05$. Therefore, the results of the study at the second stage are accepted because the p-value is greater than $\alpha = 0.05$. Therefore, based on the results, it can be said that the indirect Quran learning strategy on the emotional regulation of dyslexic students after the presence of the iqro reading method through Wafa 1 based on the digital group has a very low level of influence in this study.

Table 17. T-value of indirect Quran learning strategy between reading iqro wafa 1 against emotional regulation from digital group

Variable	Standardized Coefficients Beta	t	Sig.
(Constant)		8.76	0.00
Indirect Learning Strategies	0.01	0.10	0.91
Reading Iqro Wafa 1	0.00	0.05	0.95

Significance at 0.05 level

5. Comparison

The study found that the direct Al-Quran learning strategy had a moderate influence on the emotional regulation of dyslexic students before the use of the Iqro reading assessment through Wafa 1 media. On the other hand, the indirect strategy showed a low influence. However, after the Wafa 1 learning media was introduced as a mediator, the influence of both strategies (direct and indirect) on emotional regulation increased significantly. This proves the effectiveness of the Wafa 1 approach in helping to regulate the emotions of dyslexic students in Primary Schools (MI) in Banten Province. This finding is supported by the study of Ramadhanian et al. (2022), which shows the effectiveness of the learning strategy in improving Iqro' reading skills, and is in line with the study of Azhary et al. (2021), which emphasizes the role of literacy-based self-learning in influencing students' emotional intelligence.

Based on the study findings, it was found that the direct Quran learning strategy had a moderate influence on the emotional regulation of dyslexic students in the digital learning group before the implementation of the Iqro reading assessment through the Wafa 1 media. However, after the implementation of the assessment, this influence did not become stronger, indicating that the Iqro Wafa 1 reading assessment did not have a significant effect on improving the relationship between direct learning strategies and emotional regulation. On the other hand, the indirect learning strategy showed a very low influence, both before and after the Iqro Wafa 1 reading assessment, indicating that this approach was less effective in helping dyslexic students control their emotions, especially in the context of digital learning at Elementary Schools (MI) in Banten Province. From a theoretical point of view, Livingston, Siegel, and Ribary (2018) emphasized that dyslexia has a major impact on emotional health, which in turn affects individual success in various aspects of life. However, the results of the study by Mahrita and Cahyono (2022) show that factors such as ease of learning, emotional intelligence, and teacher creativity play an important role in improving the effectiveness of student learning, including dyslexic students. Overall, these findings suggest that direct approaches are more effective than indirect approaches but need to be supported by other factors such as emotions, teacher creativity, and the learning environment to enhance the effectiveness of learning strategies for dyslexic students.

6. Conclusions

Based on the results of data processing, the study showed that the Al-Quran learning strategy had a moderate influence on the emotional regulation of dyslexic students before the introduction of the Iqro reading assessment through the Wafa 1 learning media. However, after the assessment was used as a mediator, the influence increased significantly, especially in the conventional learning group at the Ibtidaiyah Primary School (MI) in Banten Province.

Meanwhile, in the digital group, the direct learning strategy still had a moderate influence, but the Wafa 1 assessment did not strengthen the influence. In addition, the indirect learning strategy showed a very low influence on the emotional regulation of dyslexic students, both before and after the use of the Iqro assessment. This shows that the direct approach with the

support of the Wafa 1 media is more effective than the indirect approach, especially in helping dyslexic students control their emotions in the context of learning the Quran.

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