

Research Article

Proposing a Model of Impression Learning Program to Foster Elementary Students' Mathematics Skills in an Islamic Context

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ABSTRACT

Keywords: Elementary Students, Impression Learning, Mathematics Skills, Talqiyyan Fikriyyan, TANDUR.

Article History:

Received October 18th, 2023 Accepted November 21th, 2023 Published online November 29th, 2023 This research was intended to portray how Impression Learning (IL) programs were incorporated into a mathematics class in an Indonesian Islamic elementary school and how the students' mathematics skills were fostered during the learning process. This study was a classroom practice-based model of how the IL programs were conveyed in the detailed teaching of equality of money value in grade 2 of elementary school. This study used a case study to see how a phenomenon happened: teaching steps, teacher-student dialogues, and involvement of students in the learning process. Also, the use of concrete material was planned to enable students' senses and became a novelty of this study. In addition, the teaching process consisted of (a) a learning plan (setting the learning objectives, learning materials and resources, learning media, learning approaches and strategies, schedules, and learning environments), (b) combining the concepts of teaching procedures: Talqiyyan Fikriyyan, TANDUR (Grow, Experience, Name, Demonstrate, Repeat, and Celebration), installing an internalization of Islamic values, and reflection. Besides, this research could optimize students thinking and attitude patterns. Hence, this study provides an alternative model of impression teaching in education, especially mathematics.

1. INTRODUCTION

Learning is managing the relationship between the surrounding environment and students in the learning process. According to Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System, learning is an interaction process between educators and students and learning resources in a learning environment (Helda & Syahrani, 2022). In other words, learning is considered a process of guiding students in achieving educational goals.

Furthermore, nationally, learning is an interaction process involving students, educators, and learning resources. Apart from that, learning is an assistance provided by educators so that the process of acquiring sciences and knowledge, mastering skills and habits, and forming attitudes

and beliefs in students can occur (Suardi, 2018). Therefore, good learning can help students understand material based on logic, especially mathematics lessons.

In general, mathematics is considered the science of calculations. Besides, learning mathematics can help someone to form logical thinking or not just be good at calculating (Nasaruddin, 2014). According to Ruseffendi (2007), mathematics is the science of logic regarding the arrangement of quantities and concepts that are interconnected with each other. Added by Downing (2009), mathematics is the development of the concept of calculation, measurement, and systematic study of the shape and movement of physical objects using abstraction and logic with practical mathematics, which has become a human activity as far back as written archives.

On the other hand, the growth of an era has brought a new chapter to human life (Nurfazri in Aliah & Nurfazri, 2023). Consequently, the rapid growth of science and technology requires students to have six literacies: digital literacy, scientific literacy, cultural literacy, financial literacy, numeracy literacy, and reading and writing literacy (Amaliya & Fathurohman, 2022). Hence, numeracy or mathematics literacy skills are one of the abilities that students must master when facing scientific developments.

In contrast to the facts, Indonesian students' mathematical abilities are still in the low category. This fact comes from a survey by the Trend in International Mathematics and Science Study (TIMSS) in 2015 and the Program for International Student Assessment (PISA), which was carried out in 2018 (Amaliya & Fathurohman, 2022). From the survey results, Indonesian students only scored 379 out of 489 on the OECD average in mathematics; consequently, Indonesian students' numeracy skills are in the 73rd position out of 79 countries (Amaliya & Fathurohman, 2022). On the other hand, students' mathematics achievement is always lower than in other fields of study in school (Hasratuddin, 2008). Moreover, a few teachers still teach mathematics that does not follow the students' thinking patterns and development (Permatasari, 2021). Also, some researchers found that students' anxiety in learning mathematics mostly starts while pupils are still in elementary school, and the summit indication manifests in the secondary and senior high school level (Ashcraft, 2002; Geist, 2010; Legg & Locker Jr, 2009; Rameau & Louime, 2007; Scarpello, 2007; Sun & Pyzdrowski, 2009; in Estonanto & Dio, 2019). Besides, a concept in mathematics is an abstract idea that allows someone to classify an object or event and explain whether the object or event is an example or not an example of that idea (Hasratuddin, 2008). Consequently, learners often perceive mathematics as complex (Brown et al., 2008).

To deal with those problems, the teachers are required to play a role in designing mathematics learning concepts or methods that can encourage the success of the learning process, especially for elementary students. Also, it is crucial for teachers to determine the suitable learning method to instill mathematics material from elementary school properly and deliver the abstract concept to the concrete material (Safrina et al., 2014). Thus, this study intends to propose a model of impression learning (IL) that incorporates the Talqiyyan Fikriyyan, TANDUR (Grow, Experience, Name, Demonstrate, Repeat, and Celebrate), and the Internalization of Islamic value in the learning process, particularly during teaching mathematical class. It focuses more on depicting how IL principles are incorporated into Indonesian elementary schools and how the students'

mathematical skills are fostered during the learning process. In addition, this study uses concrete material to deliver the equality of money value lessons, such as money, and engage students in market transactions.

Talqiyyan Fikriyyan is an Islamic teaching method. According to An Nabhani (2016), a method is a standard and systematic step in carrying out an activity based on compiled facts and concepts. Meanwhile, Kasman in Sari (2018) considers that Islamic learning methods are the delivery (khithab) and acceptance (talaqqiy) of thoughts from teachers to students. Thus, Islamic learning methods can be designed to achieve educational goals: a) forming an Islamic personality in students, b) mastering Islamic tsaqafah (knowledge), and c) mastering science and technology (Retnanto, 2017). Thus, Talqiyyan Fikriyyan is a method for implementing or realizing an idea so that it can be used, rather than just a theory propagated through the use of the five senses; it will help to establish the validity of the facts that result from the process assessment. From the five senses, information will be transferred to the brain to establish the validity of the facts that result from the assessment process (An Nabhani, 2008).

Furthermore, the TANDUR learning model is needed to support more impressive learning. TANDUR was created by Bobbi De Porter, Mark Reardon, and Sarah Singer Nourie from the development of the quantum teaching model. According to De Porter & Hernacki (2000), the TANDUR model of learning in quantum teaching is a process that invites the worlds of teachers and students to become one. "Bring Their World into Our World, and Bring Our World into Theirs." In other words, this learning model emphasizes daily experience and learning material.

Several previous studies focused on (a) implementing the Talqiyyan Fikriyyan method in Tsaqofah Islamiyyah material without using TANDUR (Aziz & Irwansyah, 2019), (b) a literature review about the relationship between the Talqiyyan Fikriyyan method and mathematics learning (Sari, 2018), (c) improving the students' mathematics learning outcomes through quantum teaching method without adding the Talqiyyan Fikriyyan concept (Ramlan, 2017), (d) increasing students learning results through the application of the quantum teaching model without using Talqiyyan Fikriyyan (Arum et al., 2019).

Unlike previous research, this research will discuss the application of a combination of the Talqiyyan Fikriyyan, TANDUR, and internalization of Islamic values methods to support students in mastering the material in mathematics learning to make it memorable or lasting learning. Also, if the concept of learning still often asks students only to study knowledge so they can successfully take exams and get high scores, this research was conducted to apply this knowledge in students' real lives by doing a transactional in the market. Therefore, this research emphasizes a) applying the impression learning model to mathematics classes and b) students' mathematical abilities during the learning process. Hence, this study provides an alternative model of impression teaching in education, especially mathematics.

2. METHODS

2.1 Research design

This research uses a qualitative approach with a case research in which data were collected in order to see how a phenomenon – IL principles implementation – happens and to gauge the students' mathematical skills. In some moments, this study is similar to a case study. This case study collected data to see how a Talqiyyan Fikriyyan, TANDUR, and internalization of Islamic value phenomenon happens in teaching mathematics. According to the scope of this study, this research involved only 1 class of students, which was 2 grade A of elementary school through a non-random sampling.

2.2 Research site, participants, data collection, and analysis.

This research was conducted in one of the Islamic Elementary Schools in Bogor, namely SDIT Insantama Bogor, which is located in West Bogor District, Bogor City, Indonesia. This site was selected based on several reasons. First, this school has been carrying the impression of learning through the concept of Talqiyyan Fikriyyan. Second, this school adopts quantum teaching and learning in each lesson. On the other hand, the participants were 28 students from class 2A, and their ages ranged from 7-8 years.

SDIT Insantama is an Islamic Education. This school implements ideas, notions, and the realization of educational concepts in the corridors of Islam. Apart from that, SDIT Insantama is an integrated Islamic elementary school that implements three aspects in its educational curriculum:

- a. Islamic personality
 - Islamic personality is the formation of students' thought patterns and attitudes through learning in Islamic activity: applying school culture, fostering relationships between students, and daily ubudiyah practice/biah salehah (Be devoted to the creator and make good habits).
- b. Mastering the Islamic tsaqofah (knowledge) Mastering the Islamiyyah Tsaqofah science is mastery of Islamic sciences that originate from Islamic Aqidah, which is also a source of Islamic civilization, such as Arabic, Tahfidz Qur'an, Qiroati, and social Fiqh.
- c. Mastering the life sciences Mastering the life sciences is mastery of science and technology (Saintek in Indonesian): Mathematics, Indonesian, English, Sundanese, Natural Sciences, Physical Education and Sports (PJOK in Indonesian), Arts & Culture and Crafts (SBdP in Indonesian), and Pancasila Education.

Data is taken through classroom observation to examine the implementation process. Besides, a written test about the equality of money value questions without concrete material is used to evaluate the students' mathematical skills. Conversely, the selected material is real money and food

in the market (See Table 1). This nature will encourage students to think and feel through their senses.

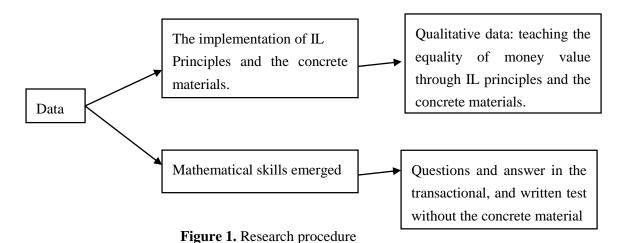
| Table 1. The use of concrete material | | | |
|---------------------------------------|--------------------|-----------------------|------------------------------|
| Number | Material | Senses | Result |
| 1 | Money | Sight, hearing, touch | Think and feel |
| 2 | Food in the market | Sight, hearing, touch | Transactional (Buy and sell) |

Table 1. The use of concrete material

The choice of material is appropriate to students' lives. This is intended to utilize the material to create memorable learning for students from now until the future.

2.3 Research procedure

The research procedure includes conducting one time of intervention. In the learning process, students learn how to implement the material related to live or daily activities. Also, the qualitative data regarding the mathematical skills that emerged during and after the implementation were analyzed by questions and answers in the transactional and written tests without the concrete material. As indicated in Figure 1, the implementation involves several IL principles (Talqiyyan Fikriyyan, TANDUR, and Internalization of Islamic value) and using concrete material to make the IL realized.



3. RESULTS AND DISCUSSIONS

This research was conducted on calculating currency in class 2 of elementary school. The data observation was analyzed by combining two methods of teaching: Talqiyyan Fikriyyan and TANDUR. Besides, it is intended to examine the internalization of Islamic value in the material. Also, the research time was managed at one time. In addition, pseudo-names are used to maintain the participants' confidentiality (Creswell, 2012). Thus, a scheme of the teaching process can be seen in Figure 2.

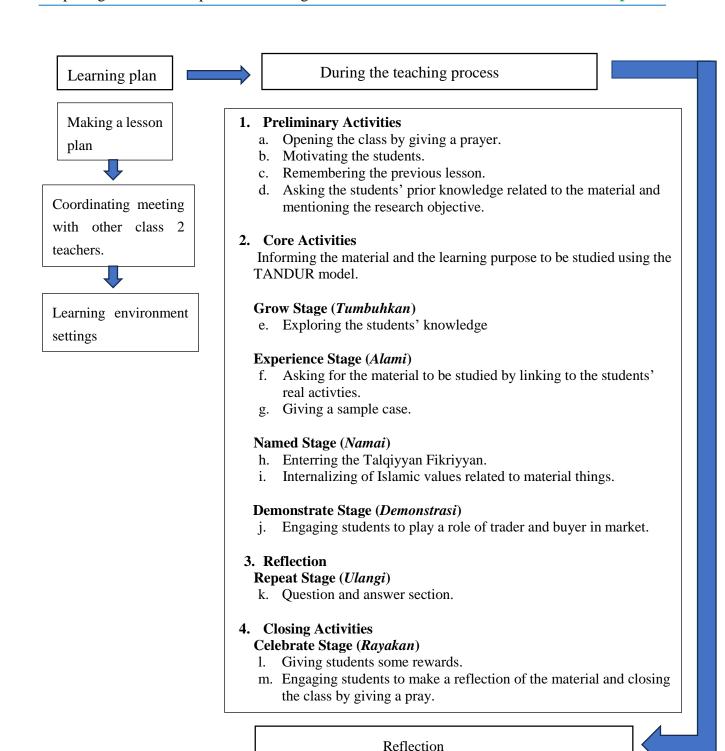


Figure 2. The scheme of teaching process

The details of the teaching process can be seen in the following sections. The data was taken from the IL programs aspect included in the teaching process.

Written test.

3.1. Preliminary Activities

3.1.1 Opening the class by giving a prayer

In the first activity, the teacher greeted students (#1). Then, the teacher asked about the students' condition (#2). Afterward, the teacher checked the students' presence (#3). Also, students prayed for those who could not attend today (#4).

Dialog 1. Opening the class by giving a prayer

| Teacher | : Assalamu'alaikum warrahmatullah wabarakatuh. (#1) |
|----------|--|
| Students | : Wa'alaikumussalam warrahmatullah wabarakatuh. |
| Teacher | : Apa kabar antum hari ini? [How are you today?] (#2) |
| Students | : Alhamdulillah, luar biasa, Allahu Akbar, yes! [Praise be to God, Amazing, Allahu |
| | Akbar] |
| Teacher | : Siapa yang tidak hadir hari ini? [Who is not present today?] (#3) |
| Students | : Izyan bu, sakit. [Izyan ma'am, he is sick]. |
| Teacher | : Baik, mari sama-sama kita doa'akan Izyan supaya segera sembuh. Al-fatihah. [Alright, |
| | let's pray for Izyan, hopefully he get well soon. Al-fatiha]. (#4). |

3.1.2 Motivating the students

Before going to the material, the teacher motivated students to increase the student's zeal in learning. In this step, the teacher used the man jadda wa jada proverb (#5). The teacher asked students to show themselves if students wanted to be serious about learning (#6).

Dialog 2. Motivating the students

| Teacher | : Seorang muslim harus bersungguh-sungguh dalam belajar agar berhasil. Man jadda |
|----------|---|
| | Wajada. Ayo ucapkan bersama, Man jadda Wajada, barang siapa yang bersungguh |
| | sungguh pasti berhasil! [A Muslim must be serious about studying in order to be |
| | successful. Man Jadda Wajada. Let's say it together, Man Jadda Wajada, if you are |
| | serious, you will definitely succeed] (#5). |
| Students | : Man jadda Wajada, barang siapa yang bersungguh-sungguh pasti berhasil. [Man Jadda |
| | Wajada, if you are serious, you will definitely succeed]. |
| Teacher | : Katakan ana jika antum hari ini akan bersungguh-sungguh dalam belajar! [Who is really |
| | serious to learn, please say "Me"] (#6). |
| Students | : Ana! [Me!] |

3.1.3 Remembering the previous lesson

It is important to remind students of the previous material delivered (#7). In addition, the teacher also connected the previous material to the material right now (#8). Also, the teacher reminded students about the rules of learning (#9).

Dialog 3. Remembering the previous lesson

| Teacher | : Siapa yang masih ingat materi sebelumnya? [Who is remember the previous material?] |
|-----------|--|
| | (#7) |
| Student 1 | : Tentang uang. [About money]. |
| Student 2 | : Uang. [Money]. |

| Teacher | : Bagus, sekarang kita akan melanjutkan materi tentang uang, tapi kita akan praktek |
|----------|--|
| | dengan transaksi jual beli. Jadi, antum akan melakukan penjumlahan dan pengurangan |
| | dengan benda konkrit atau nyata. [Good, now we will continue the material of money, |
| | but we are going to practice it through the transaction. So, you will do addition and |
| | subtraction using concrete or real objects]. (#8) |
| Teacher | : Dalam pembelajaran ini, kita sepakati aturan belajar hari ini. Siswa harus tertib, harus |
| | mendengarkan penjelasan guru, dan harus semangat mengerjakan tugas. [In this lesson, |
| | we agree on today's learning rules. Students must follow some regulations: orderly, listen |
| | to the teacher's explanations, and enthusiastic about doing assignments]. (#9) |
| Students | : Okay. |

3.1.4 Asking the students' prior knowledge related to the material

In teaching, bring the child's world into learning (De Porter & Hernacki, 2000). This way helps students better understand the learning objectives to be achieved. After that, the teacher can mention the purpose and benefit of the learning objective for students in real life.

Dialog 4. Asking the students' prior knowledge related to the material

| TD 1 | Dialog 4. Asking the students prior knowledge related to the material |
|-----------|---|
| Teacher | : Kira-kira, antum pernah ga beli di pasar atau tempat lain? [By the way, have you ever |
| | bought something at the market or other places?] (#10) |
| Students | : Pernah. [Yeah, we have] (#11) |
| Teacher | : Apa yang antum beli? Berapa harga nya? [What did you buy? How much does it cost?] |
| Student 3 | : Mainan, 20 ribu. [Toys, it was 20 thousands rupiah] |
| Teacher | : Berapa uang yang antum berikan kepada penjual tersebut? [How much money did you |
| | give the seller?] |
| Student 3 | : Umi ana ngasih 50 ribu. [My mother gave 50 thousands rupiah] |
| Teacher | : Berapa kembalian yang antum terima? Apakah sudah tepat? [How much change did |
| | you receive? Was it correct? |
| Student 3 | : Ga tau ana bu. Umi ana yang bayar. [I do not know ma'am, my mother payed it] (#12) |
| Teacher | : Ada lagi? [Anymore?] |
| Student 2 | : Sama bu. [Same ma'am] |
| Teacher | : Kalau begitu, kita akan belajar tentang penjumlahan dan pengurangan dalam transaksi |
| | jual beli. Ilmu ini akan sangat berguna pada kehidupan antum, karena antum tidak akan |
| | pernah lepas dari transaksi tersebut. [Then, we will learn about addition and subtraction |
| | in buying and selling transactions. This knowledge will benefit your life because you |
| | will never be separated from this transaction] (#13) |

Dialog 4 shows that the teacher invited students to think about the material with activities that students had experienced as previous knowledge (#10). Several students admitted that they had made buying and selling transactions in the market, but pupils could not make payments themselves (#11 and #12). Hence, the teacher conveyed the learning objectives (#13).

3.2. Core Activities

3.2.1 Grow Stage

Exploring the students' knowledge

At the beginning of learning activities, the teacher must try to grow/develop students' interest in learning. Providing sufficient apperception can be done so that students are motivated to learn from the start of the activity. When entering learning, the teacher stimulated students' interest in learning by playing a video (#14). Then, the teacher raised several questions related to the video that had been played to explore students' knowledge (#15, #16, and #17). Next, the teacher asked questions to relate to the material to be discussed (#18).

Dialog 5. Exploring the students' knowledge

| Teacher | : Baik anak-anak semuanya, sekarang kita akan menonton sebuah video. Maka dari itu, |
|-----------|---|
| | antum perhatikan video berikut. [Okay, everyone, now we are going to watch a video. |
| | Therefore, you should pay attention to the following video] (#14). |
| | The teacher showed a video. |
| Teacher | : Kegiatan apakah yang kalian lihat dari video tersebut? [What activities did you see in the video?] (#15) |
| Students | : Beli makanan. [Bought a food] |
| Teacher | : Bagus. Apa yang dipakai untuk membayar barang/makanan? [Good. What did you use to pay for goods/food?] (#16) |
| Student 1 | : Uang. [Money] |
| Teacher | : Kenapa pakai uang? [Why the video used money] (#17) |
| Student 4 | : Sebagai alat pembayaran. [As a means of payment] |
| Teacher | : Good job. Jadi, uang adalah sebagai alat pembayaran yang sah ya, kita akan belajar tentang uang. [Good job. So, money is a legal means of payment. We will learn about money] (#18) |

3.2.2 Experience Stage

Asking for the material to be studied by linking to the students' real activities

Student experience and curiosity are the keys to the success or failure of this method. Teachers must involve students so that students experience the material being studied directly. In this process, the teacher asked students to tell their experiences (#19). Next, the teacher asked questions about students' experiences related to the material (#20, #21, and #22).

Dialog 6. Involving students' experiences related to the material being studied

| | are governor to the period of the material components |
|---------|--|
| Teacher | : Jika di awal tadi antum pernah melakukan pembelian di sebuah pasar. Siapa yang ingin |
| | menceritakan pengalamannya ketika membeli barang? [If at the beginning you had made |
| | a purchase at a market. Who wants to tell about your experience when buying goods] |
| | (#19) |

| Student 1 | : Ana bu. [I want ma'am] |
|-----------|--|
| Teacher | : Oke, silahkan maju ke depan dan ceritakan pengalaman antum. [OK, please come |
| | forward and tell your experience] |
| Student 1 | : Ana pernah beli ice cream harganya lima ribu. [I once bought ice cream for five |
| | thousand] |
| Teacher | : Berapa uang yang antum bawa? [How much money did you bring?] (#20) |
| Student 1 | : Sepuluh ribu. [10 thousands rupiah] |
| Teacher | : 1 lembar sepuluh ribuan? [A ten thousands rupiah note] (#21) |
| Student 1 | : Iya. [Yes] |
| Teacher | : Berapa uang yang dikembalikan? [How much money was returned?] (#22) |
| Student 1 | : Lima ribu. [Five thousand] |
| Teacher | : Bagus, beri tepuk tangan yang meriah. Ada lagi yang memiliki pengalaman yang sama? |
| | [Good, give a big applause. Anyone who has the same experience?] |
| Student 5 | : Ana juga pernah gitu bu. [I have been like that, ma'am] |

Giving a sample case

The teacher provided case studies to stimulate students to sharpen their brains, and there was intensive interaction between the teacher and students in learning. The teacher provided a simple case study related to the learning material in this context. Case studies were carried out using learning models or concrete objects in the form of money (#23). In the delivery process, the teacher told a case and then asked questions about the case (#24 and #25).

Dialog 7. Giving a sample case

| Teacher | : Suatu hari, ibu pergi ke toko buku. Ibu membawa uang sebanyak 10 lembar dalam |
|-----------|--|
| | bentuk seribuan. Ibu membeli barang seharga enam ribu. Lalu, ibu menyerahkan uang |
| | sebanyak 6 lembar seribuan. [One day, I went to a bookstore. I brought money in ten |
| | thousand rupiah notes. I bought goods for six thousand. Then, I handed money in six |
| | thousand rupiah notes] (#23) |
| Teacher | : Dari kasus itu, berapa sisa lembar uang yang di tangan ibu? [From this case, how many |
| | bills were left in my hand?] (#24) |
| Students | : 4 lembar. [Four notes] |
| Teacher | : Berapa nilai dari 4 lembar seribuan ini? [What was the value of these four notes?] (#25) |
| Student 6 | : Empat ribu. [Four thousand rupiahs] |
| Teacher | : Bagus. [Awesome] |

3.2.3 Name Stage

Enterring the Talqiyan Fikriyyan.

The Talqiyan Fikriyyan method combined knowledge (information) with reality/facts sensed by students (See Figure 3). This presentation was essential so that students could understand the application of abstract science to concrete objects.



Figure 3. Using money as the concrete material

Meanwhile, conveying knowledge to students was aimed at ensuring that students understood this knowledge and could use it as a basis for attitudes and behavior.

Teacher Dialog 8. Deliver the material using Talqiyyan Fikriyyan

: Dari studi kasus dan pengalaman teman antum tadi, sebenarnya kita sedang berbicara tentang kesetaraan mata uang. Ada yang tahu apa itu setara? [From the case study and your friend's experience, we are actually talking about currency equality. Does anyone know what equivalent is?] (#26)

Student 2 : Sama. [Have the same value]

Teacher : Bagus. Kalau begitu, apa itu kesetaraan mata uang? [Good. If so, what is currency equality?]

: Kesamaan uang. [Money equality] (#27): Good. Ada lagi? [Good. Anymore?]

Student 6 : Nilai uangnya sama. [It has a currency equality] (#28)

: Bagus. Jadi, Kesetaraan mata uang adalah uang yang berjumlah lebih besar dapat ditukar ke jumlah yang sama dengan uang yang lebih kecil atau sebaliknya. Contoh uang yang ibu pegang ini 10 lembar seribuan. Nilainya sama dengan sepuluh ribu. Adakah uang 1 lembar dengan nilai sepuluh ribu? [Good. Currency equality is when a more significant amount of money can be exchanged for the same amount of minor money or vice versa. For example, I was holding one note, and Its value is equal to ten thousand rupiah. Is there one note with a value of ten thousand?] (#29)

rupian. Is there one note with a value of ten thousand.

Students : Ada bu. [Yes, it is, ma'am]

Student 4

Teacher

| Teacher | : Nah, jadi untuk memakai uang dengan nilai sepuluh ribu, kalian dapat memakai uang |
|-----------|---|
| | 1 lembar sepuluh ribu atau 10 lembar seribuan. Adakah kombinasi yang sama dengan |
| | sepuluh ribu? [So, to use money with a value of ten thousand, you can use one note with |
| | a value of 10 thousand. Is there a combination that equals ten thousand?] (#30). |
| Student 1 | : Ada, bisa dengan 5 lembar dua ribuan. [Yes, we can use two thousand in five sheets] |
| | (#31) |
| Student 4 | : Bisa juga dengan 2 lembar lima ribuan. [It is also two sheets with a value of five |
| | thousand] (#32) |
| Teacher | : Hebat. [Great] |

From dialog 8, the teacher explained the relationship between students' experiences in the previous session, formulating information that the five senses could achieve as the concept of Talqiyan Fikriyyan. As a result, the material explained becomes more focused and accessible for students to understand. In addition, the teacher linked previous student exploration with the material to be presented (#26). Also, the teacher clearly defined the material being studied by exploring the meaning of a word (#29). By providing previous knowledge, students can understand "equality" as a learning objective (#27 and #28). Furthermore, the teacher provides examples of the material studied with concrete objects (#29 and #30). More than that, students could provide the same examples (#31 and #32).

Internalization of Islamic values

In this stage, the teacher did not only focus on deepening the material so that students could understand it. However, teachers internalized Islamic values so that all the knowledge students gain is always framed in obedience to Allah SWT (The most glorified and the highest). The teacher asked questions to lead to internalization. Consequently, there was a connection between the material studied and the Islamic values that would be internalized (#33).

Dialog 9. Internalization of Islamic values

| Teacher | : Menurut kalian bagaimana jika kita tidak mau belajar menghitung uang? [What do you |
|-----------|---|
| | think if everyone does not want to learn to count money?] |
| Student 1 | : Jadi ga punya ilmunya. [So, they will not know] |
| Teacher | : Bagus ada lagi? [Good, anymore?] |
| Student 3 | : Akan rugi. [Get lost] |
| Teacher | : Oke, bagus. Penting sekali seorang muslim mampu menghitung uang dengan benar |
| | sehingga tidak memberikan kerugian untuk dirinya atau orang lain. Rasulullah bersabda |
| | "Tidak boleh berbuat madharat dan hal yang menimbulkan madharat" (HR Ibnu Majah). |
| | [Ok good. It is very important for a Muslim to be able to count money correctly so that |

it does not cause harm to himself or others. The Prophet said, "Do not do madharat (disadvantage) and things that cause madharat (Shahih Ibnu Majah)] (#33).

Demonstration

In a learning process, teachers must provide opportunities for students to apply what students are learning. If pupils are directed to translate the material students obtain by experiencing it directly, their understanding will be more optimal. As a result, students' absorption and analytical skills increase. In this research process, the teacher invited students to simulate buying and selling activities in the market (See Figure 4). Teachers provided various types of food that students often encounter. Apart from that, students knew how to sell and buy correctly according to Islamic teachings and learned directly about addition and subtraction and the equality of money.



Figure 4. The demonstration of the transactional market in school

Furthermore, the teacher asked what the students wanted to buy (#34). In addition, the teacher directed students to calculate the total expenditure (#35). Also, the teacher asked how many bills the students brought (#36). The teacher also asked for the combination of denominations that must be paid (#37). Next, students hand over money to the teacher (#38 and #39).

Dialog 10. Engaging students to play the role of trader and buyer in the market

| Teacher | : Apa yang ingin antum beli? [What do you want to buy?](#34) |
|-----------|---|
| Student 2 | : Getuk dan Papais [Getuk and Papais] |
| Teacher | : Ok, getuk harganya dua ribu dan papais dua ribu. Coba pikirkan, berarti berapa yang |
| | harus antum bayar? [Ok, Getuk costs two thousand, and Papais is two thousand. Just |
| | think about it: how much do you have to pay?] (#35) |
| Student 2 | : Empat Ribu. [Four thousand rupiahs] |
| Teacher | : Berapa uang yang antum bawa? [How much money do you bring?] (#36) |

| Student 2 | : 3 uang seribuan dan 2 uang dua ribuan. [One thousand rupiah in three notes and two |
|-----------|--|
| | thousand rupiahs in two notes] |
| Teacher | : Jadi pecahan uang berapa saja untuk membayar harga empat ribu? [So, how much |
| | money to pay those foods?] (#37) |
| Student 2 | : 2 uang seribuan dan 1 uang dua ribuan. [One thousand rupiah in two notes and two |
| | thousand rupiahs] |
| Teacher | : Benar, antum hebat. [Correct, you are great] |
| Student 2 | : Ini uangnya ana berikan. [This is the money] (#38) |
| | · III wangiya ana cerman (rins is the money) (wee) |
| Teacher | : Ok, ibu terima uangnya dan ibu serahkan barangnya. [Ok, I take the money and here is |
| Teacher | , |

3.3 Reflection

Reflection is an assessment of student learning outcomes. This phase is carried out when the materials have been delivered. Besides, this evaluation can help know students' understanding during the learning process.

In this research, a reflection was carried out as an oral and written test at the end of the learning. Oral tests were carried out by asking students direct questions, and students must also answer questions directly. In addition, oral tests were given as small questions to support student understanding. On the other hand, written tests determine student progress or learning outcomes. The purpose of the test is not only to test but to find out the extent of students' understanding of the material given as a repetition process.

3.3.1 Repeat

Question and answer section

After students carried out a buying and selling simulation, it was time for the teacher to repeat it. Repetition is essential in teaching and learning to test students' understanding. Apart from that, repetition was carried out by asking questions about the material or allowing students to explain the material.

In this study, teachers ensured students' understanding of currency equity (#40). Next, students were asked to determine the number of bills with a thousand value (#41). From the results of the subtraction process, students can determine the number of pieces of currency with the same value without concrete objects (#42, #43, and #44). Afterward, the teacher gave a written test to ensure students understood the material without concrete objects (#45).

Dialog 11. Question and answer section

| Teacher | : Apakah antum sudah semakin paham terkait kesetaraan mata uang melalui kegiatan |
|---------|--|
| | jual beli tadi? [Do you understand more about currency equality through buying and |
| | selling activities?] (#40). |

| Students | : Ya, sudah. [Yes, we do] |
|-----------|---|
| Teacher | : Ok, jika antum membeli makanan seharga tiga ribu, berapa pecahan uang yang harus |
| | dibayarkan? [Ok, if you buy food for three thousand rupiahs, how much money do you |
| | have to pay?] (#41) |
| Student 2 | : 3 uang seribuan [One thousand rupiah in three notes] (#42) |
| Student 1 | : Iya betul. [Yes, it is correct] |
| Student 7 | : Seribuannya ada 3 lembar. [One thousand rupiah in three notes] (#43) |
| Teacher | : Bagus. Jika uangnya tidak semua pecahan seribuan, maka bagaimana antum bisa |
| | membayarnya? [Good. If the money is not all in thousand notes, then how can you pay |
| | for it?] |
| Student 3 | : 1 uang dua ribuan dan 1 uang seribuan. [two thousand rupiahs and one thousand rupiah] |
| | (#44) |
| Teacher | : Good job. Sekarang antum kerjakan tugas ini ya. [Good job. Now, you have to do this |
| | task] (#45) |

On the other hand, the results of the students' written tests show that students could do the questions well (See Figure 5). In other words, applying IL programs made students understand mathematics more deeply because students were invited to illustrate abstract material with concrete objects.

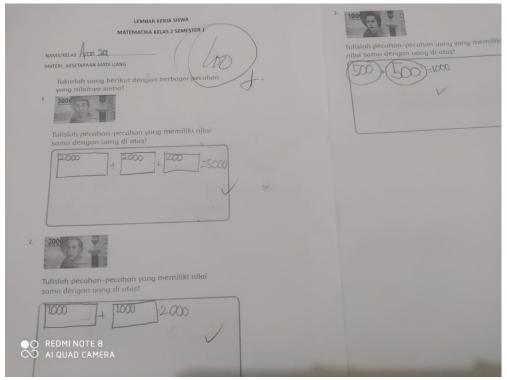


Figure 5. The result of students' answers to the questions

3.4 Closing activities

3.4.1 Celebrate

Giving students some rewards

For children, celebrating something is fun and an encouragement to continue the process. In this way, students feel they have support to study harder. In this study, celebration activities were done by asking who had completed the task (#46). Next, the teacher asked students to collect and check their assignments together (#47). Then, the teacher gave them some awards (#48).

Dialog 12. Giving students some rewards

| Teacher | : Siapa yang sudah selesai tugasnya? [Who has finished the work?] (#46) |
|----------|---|
| Students | : Ana. [Me] |
| Teacher | : Ok, kumpulkan hasil kerja antum dan kita akan periksa bersama-sama. [Ok, please, |
| | collect the results of your work, and we will check it together (#47) |
| Teacher | : Hebat, antum semua layak mendapatkan bintang. [Great, you all deserve a star] (#48) |

Engaging students to make a review of the material

Furthermore, the teacher and students closed learning activities by reviewing the material. The teacher asked questions related to the learning review (#49). Besides, the teacher asked whether the material could be easily applied in their buying and selling activities (#50). Students admitted that they found it easier to apply buying and selling (#51). Besides, the teacher motivated students and told students the following material (#52).

Dialog 13. Engaging students to make a review of the material

| Teacher | : Ok, anak-anak, pembelajaran hari ini telah selesai dilaksanakan. Apakah yang sudah |
|----------|---|
| | antum ketahui dari pembelajaran hari ini? [Ok, children, today's lesson has been |
| | completed. What have you learned from today's lesson?] (#49) |
| Students | : Kesetaraan uang. [The equality of money] |
| Teacher | : Dengan belajar kesetaraan mata uang ini, apakah antum merasa akan lebih mudah saat |
| | jual beli ke depannya? [By learning this material, do you feel more get easy when you |
| | are doing a transactional in the future?] (#50). |
| Students | : Ya bu. [Yes, ma'am] (#51) |
| Teacher | : Semoga pembelajaran hari ini dapat memberikan manfaat bagi kehidupan kalian. |
| | Semangat terus dalam mencari ilmu ya. Di pertemuan berikutnya, kita akan membahas |
| | tentang menaksir harga barang dengan sekelompok pecahan uang yang setara. |
| | [Hopefully, today's learning can benefit your life. Keep your enthusiasm in seeking |
| | knowledge. At the next meeting, we will discuss estimating the price of goods using a |
| | group of equivalent denominations] (#52) |
| 1 | |

This research was intended to describe how implementing Talqiyyan Fikriyyan in learning with a combination of the TANDUR learning model is carried out to make learning fun for students, as well as an overview of implementing Islamic values in the learning process. Apart from that, this research also looked at students' mathematical abilities during and after the implementation as the reflection of learning.

In the learning planning stage, mathematics teachers discussed with other teachers to determine learning objectives, prepare learning materials and resources, select learning media, select learning approaches and strategies with teachers, schedule settings, and the learning environment. Besides, the teacher used several steps in the teaching-learning procedure: preliminary, core, evaluation, and closing activities. In addition, the focus of the teaching-learning procedure was to engage students in learning the material of money equality in everyday life by using concrete objects, such as buying and selling activities. Students' conceptual learning of abstract concepts was significantly improved by using concrete examples during learning (Rawson et al., 2015).

In the pleminiary step, the teacher carried out some apperceptions: opening the class by giving a prayer, motivating the students, remembering the previous lesson, asking the students' prior knowledge related to the material, and mentioning the research objective. Also, the teacher began the core activity by growing the students' perception through watching a transactional video. After that, the teacher linked the material to a real-life situation and gave a sample case. More than that, students were shown some money as the concept of Talqiyyan Fikriyan. According to An Nabhani (2015), as the thinking components, Talqiyyan Fikriyyan must include facts, a normal human brain, five senses, and previous information. After that, the teacher installed Islamic values to remind the students of Islamic teachings because all aspects of life must be based on Islamic sharia.

Meanwhile, to make the teaching process track of students' experience, the teacher engaged students to play the role of trader and buyer in the market. This way is believed to make the students' perception of the material more robust. In the reflection steps, the teacher did an oral and written test for students. The oral test supported students' deeper understanding before taking the written test. Then, the written test was used to determine students' abilities after learning from concrete to abstract concepts. The results show that students could understand correctly the tests given. Also, the teacher appreciated the students' work to support the student's zeal and confidence in learning something.

4. CONCLUSION

It was found that applying the principles of impression learning in currency equivalence classes enabled Indonesian elementary school students to develop their mathematical abilities. This result related to learning methods that could optimize all thinking and attitude patterns and were designed with a fun learning model to make the learning material more accessible for students to understand. Applying this principle provides solutions to several problems that arise in mathematics learning. Hence, students can think critically and logically, enjoy the learning process, get an idea, and be encouraged to apply it. In addition, the teaching process consisted of (a) a learning plan (setting

the learning objectives, learning materials and resources, learning media, learning approaches and strategies, schedules, and learning environments), (b) combining the concepts of teaching procedures: Talqiyyan Fikriyyan, TANDUR (Grow, Experience, Name, Demonstrate, Repeat, and Celebration), installing an internalization of Islamic values, and reflection. In addition, the student's mathematics skills were evaluated in the questions and answers section during the implementation, and students worked on a question sheet. Question sheets determined students' abilities after learning from concrete to abstract concepts. The results showed that students could understand correctly the tests given. After that, the teacher celebrated learning by appreciating students' work results. In sum, the impression of learning principles based on the Talqiyyan Fikriyyan, TANDUR, and Internalization of Islam appears to be an alternative model of impression learning in education, especially mathematics.

REFERENCES

- Aliah, A. R. H., & Nurfazri, M. (2023). TikTok as a Media for Self-Existence among Gen Z in the Middle of the Covid-19 Pandemic.
- Amaliya, I., & Fathurohman, I. (2022). Analisis Kemampuan Literasi Matematika Ditinjau dari Gaya Belajar Siswa SDN Mangunjiwan 1 Demak. *JRPD (Jurnal Riset Pendidikan Dasar)*, 5(1), 45–56.
- An Nabhani, T. (2008). *Hakekat Berpikir*. Pustaka Thariqul Izzah.
- An Nabhani, T. (2016). Kepribadian Islam. HTI Press.
- Arum, N., Amir, N. F., & Buru, U. I. (2019). Improving student learning results through the application of the quantum teaching model. *JME* (*Journal of Mathematics Education*), 4(1), 8–13.
- Ashcraft, M. H. (2002). Math anxiety: Personal, educational, and cognitive consequences. *Current Directions in Psychological Science*, 11(5), 181–185.
- Aziz, F., & Irwansyah, F. S. (2019). Implementasi Metode Talqiyan Fikriyan pada Pembelajaran Tsaqofah Islam. *Jurnal Perspektif*, *3*(2), 177–186.
- Brown, M., Brown, P., & Bibby, T. (2008). "I would rather die": Reasons given by 16-year-olds for not continuing their study of mathematics. *Research in Mathematics Education*, 10(1), 3–18.
- De Porter, B., & Hernacki, M. (2000). Quantum learning. PT Mizan Publika.
- Downing, D. (2009). Dictionary of mathematics terms. Barron's Educational Series, Inc.
- Estonanto, A. J. J., & Dio, R. V. (2019). Factors causing mathematics anxiety of senior high school students in calculus. *Asian Journal of Education and E-Learning (ISSN: 2321–2454)*, 7(01).
- Geist, E. (2010). The anti-anxiety curriculum: Combating math anxiety in the classroom. *Journal of Instructional Psychology*, 37(1).
- Hasratuddin, H. (2008). Permasalahan pembelajaran matematika sekolah dan alternatif pemecahannya. *Pythagoras: Jurnal Matematika Dan Pendidikan Matematika*, 4(1).
- Helda, H., & Syahrani, S. (2022). National standards of education in contents standards and education process standards in Indonesia. *Indonesian Journal of Education (INJOE)*, 2(3), 257–269.
- Legg, A. M., & Locker Jr, L. (2009). Math performance and its relationship to math anxiety and metacognition. *North American Journal of Psychology*, 11(3).
- Nasaruddin, N. (2014). Pembelajaran Matematika Berbasis Islam. Al-Khwarizmi: Jurnal

- Pendidikan Matematika Dan Ilmu Pengetahuan Alam, 2(2), 59–68.
- Permatasari, K. G. (2021). Problematika pembelajaran matematika di sekolah dasar/madrasah ibtidaiyah. *Jurnal Pedagogy*, *14*(2), 68–84.
- Rameau, P., & Louime, C. (2007). Mathematics phobia: Are the mathematical sciences a pothole in the road of life? *Current Science*, 93(11), 1481–1482.
- Ramlan, A. M. (2017). Improving The Students' Mathematics Learning Outcomes Through Quantum Teaching Method. *Journal of Mathematics Education*, 2(1), 24–30.
- Rawson, K. A., Thomas, R. C., & Jacoby, L. L. (2015). The power of examples: Illustrative examples enhance conceptual learning of declarative concepts. *Educational Psychology Review*, 27, 483–504.
- Retnanto, A. (2017). Integrasi Keilmuan dalam Pendidikan Islam. *Jurnal Elementary*, 5(2), 232–250.
- Ruseffendi, E. T. (2007). *Pendidikan Matematika dalam Rujukan Filsafat, Teori, dan Praksis Ilmu Pendidikan*. Bandung: Universitas Pendidikan Indonesia Press.
- Safrina, K., Ikhsan, M., & Ahmad, A. (2014). Peningkatan kemampuan pemecahan masalah geometri melalui pembelajaran kooperatif berbasis teori van hiele. *Jurnal Didaktik Matematika*, *I*(1).
- Sari, R. H. Y. (2018). *Hubungan metode talqiyyan fikriyyan terhadap pembelajaran matematika*. Scarpello, G. (2007). Helping students get past math anxiety. *Techniques: Connecting Education and Careers (J1)*, 82(6), 34–35.
- Suardi, M. (2018). Belajar & pembelajaran. Deepublish.
- Sun, Y., & Pyzdrowski, L. (2009). Using technology as a tool to reduce mathematics anxiety. *The Journal of Human Resource and Adult Learning*, 5(2), 38–44.