INTRODUCING THE PETaL APPROACH IN ECE CLASSROOMS IN INDONESIA

INTRODUCCIÓN DEL ENFOQUE PETaL EN LAS AULAS DE ECE EN INDONESIA

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Abstract

The study explores the implementation of the PETaL approach as a strategy to cultivate Intercultural Education (IE) in Early Childhood Education (ECE) in Indonesia through the lens of kindergarten teachers. The study implemented Mixed Methods Approach (Creswell & Clark, 2017) to provide reliable data about how the PETaL approach is perceived by teachers, and how it is actually being executed in the ECE context in Indonesia. The implementation included four hours of interventions to train participating teachers about Intercultural Education and a thorough introduction to the PETaL approach. This study used interviews and semi-structured observations as the instruments of the research. The data analyzed reported positive feedback from kindergarten teachers regarding the implementation of the PETaL approach in the Indonesian context. In accordance to how this approach has been applied, the study reported medium to high success rate in the application of the PETaL approach as the mean value showed 1.21 out of 2 in average with moderate to high variations. Conclusions indicate that the PETaL approach had been applied well by participating teachers of ECE in Indonesia, adhering coherently to its principles. Nevertheless, further training and continuous guidance are needed to improve the pertinence level of implementation in the Indonesian context.

Keywords: intercultural education; PETaL approach; early childhood education; Indonesia

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Resumen
El estudio explora la implementación del enfoque PETaL como estrategia para la Educación Intercultural en la Educación Infantil (ECE) en Indonesia desde la perspectiva de los maestros de educación de infantil. El estudio adoptó enfoque de métodos mixtos (Creswell & Clark, 2017) para proporcionar datos fiables sobre cómo los docentes perciben el enfoque PETaL y cómo se está ejecutando realmente en el contexto de la ECE en Indonesia. La implementación incluyó cuatro horas de intervenciones para capacitar a los docentes participantes sobre Educación Intercultural y una introducción exhaustiva al enfoque PETaL. Este estudio utilizó entrevistas y observaciones semiestructuradas como instrumentos de investigación. Los datos analizados arrojaron comentarios positivos de los maestros de educación de infantil con respecto a la implementación del enfoque PETaL en el contexto de Indonesia. De acuerdo con cómo se ha aplicado este enfoque, el estudio reportó una tasa de éxito de media a alta en la aplicación del enfoque PETaL, ya que el valor medio mostró 1,21 sobre 2 en promedio con variaciones de moderadas a altas. Las conclusiones indican que el enfoque PETaL había sido aplicado bien por los docentes participantes de ECE en Indonesia, adhiriéndose de forma coherente a sus principios. Sin embargo, se necesita más capacitación y orientación continua para mejorar el nivel de pertinencia de la implementación en el contexto de Indonesia.

Palabras clave: educación intercultural; enfoque PETaL; educación de la primera infancia; Indonesia
1. INTRODUCTION

Globalization has brought about rapid changes that have permeated every facet of our lives, including culture (Kim et al., 2022). As a result, diversity has emerged as a crucial topic that demands the attention and consideration of various stakeholders, particularly educators. In light of the increasingly diverse and interconnected nature of our world, students need to develop competencies that enable them to navigate this globalized landscape. According to Kim et al. (2022), there is a projected surge in the demand for acquiring Intercultural Competence in order to effectively adapt to this new reality.

Intercultural Education emerged in 1983, specifically during the European Conference in Berlin on November 15th, which aimed to seek a solution for migrants’ schooling in Europe (Rapanta & Travão, 2021). According to Kim et al. (2022), the establishment of Intercultural Education enables members of society to have common cultural abilities that will help them interact with others from different cultural backgrounds. Similarly, Hajisoteriou and Angelides (2015) stated that the emergence of Intercultural Education is to endorse equality and social justice.

However, despite all the objectives of Intercultural Education (IE) that have been much discussed (Byram, 2020; Deardorff, 2006; Hernández & Hermosilla, 2015; Rapanta & Travão, 2021), its implementation has not been integrated into the curriculum in many countries. Abduh and Rosmaladewi (2018) argued that most research on Intercultural Education is done in a Western context and from a Western point of view, while very limited research has been done in the Asian context, especially Indonesia, a country that historically has witnessed numerous ethnical disputes (Firdaus et al., 2020). Furthermore, not only is the concept of IE perceived as recent, but the minimal implementation of IE in a school context is also found in Indonesia. As an illustration, IE in Indonesia has merely been implemented in its higher education context (Tulak et al., 2019). Moreover, IE is not inserted in the curriculum in the lower level of education, such as elementary and Early Childhood Education. Such a phenomenon disproved that racial stereotypes, inequality, and cultural messages are learned at a very young age (Sari, 2017).

Besides the absence of IE in the curriculum, foreign language learning, a subject that entails intercultural learning, has also been omitted in the context of elementary and Early Childhood Education (ECE) in Indonesia. The Indonesian national curriculum, established in 2013, has eliminated foreign language learning, including English, to decrease students’ learning burden (Sari, 2017). Such phenomenon invites debates among experts, among which is the statement that exclusion in social settings could happen as early as in the first years of children’s lives at school (Dusi et al., 2017). Thus, embedding IE in school curricula should be extended to the Early Childhood Education stage. This research studies the introduction of the PETaL approach into Indonesian Early Childhood Education (ECE) context to integrate IE within it. In the context of this study, the goal is to explore teachers' perceptions of the practical application of the PETaL approach in
Early Childhood Education in Indonesia. The study involves observing the implementation of this approach, gathering and analyzing data. The results will provide insights for researchers to suggest improvements for both the educational system and the relatively new PETaL approach. Thus, the specific objectives (S.O.) of this study are:

- S.O.1. To explore kindergarten teachers’ understanding of Intercultural Education.
- S.O.2. To analyze whether the PETaL approach is feasible in the ECE context of Indonesia, based on teachers’ viewpoints.
- S.O.3. To observe whether the implementation of the PETaL approach by participating instructors is appropriate and adheres to the approach’s guiding principles.

From the objectives mentioned, the research questions are:

- RQ1. What do teachers know about Intercultural Education?
- RQ2. What are the perceptions of ECE teachers towards the feasible application of the PETaL approach as a feasible strategy for Intercultural Education in the Indonesian ECE context?
- RQ3. How do teachers implement the PETaL approach in the Indonesian ECE context?

2. THEORTEtical FRAMEWORK

2.1. Intercultural Education

Culture has been referred to as a set of unique material, spiritual, and intellectual characteristics of a society, including a way of living, tradition, and beliefs (UNESCO, 2006). Originally, Tylor (1870) defined culture as “a complex concept that a member of society holds, including art, morals, custom, belief, and even law” (as cited in Spencer-Oatey & Franklin, 2012 p. 1). Culture is also conceptualized as a social identity that plays an important role in reconciling shared identities in a structure of unity (UNESCO, 2006).

As culture influences the unity of society, the study of different cultures should be incorporated into the education system. A school itself is a space to train learners to adapt to the dynamics of the global world, as preparing children only for professional purposes will not be enough to survive in such a global world (Lourenço, 2018). Preparing children to live harmoniously and communicating with respect with individuals from diverse traditions is fundamental to achieve equality and equitable societies. Therefore, IE emerged as the bridge for students to acquire knowledge, attitude, and competencies necessary for their personal and professional lives.

IE emerged in Europe, specifically in German and France, back in 1983, intending to provide education for migrant children (Maine & Vrikki, 2021). More specifically,
Intercultural Education emerged as a response to the rapid cultural assimilation in society across European countries, and the awareness that immigrants need to adjust to the local culture at school (Banks & McGee, 2009, as cited in Hajisoteriou & Angelides, 2015). According to Abduh and Rosmaladewi (2018), IE is the knowledge to relate to others and the skills to respect and value others despite cultural and ethnic differences. This foundational understanding of IE sets the stage for a more comprehensive exploration of intercultural competence (IC). Byram (2020) defined IC as “knowledge of others, knowledge of self; skills to interpret and relate; skills to discover and/or to interact; valuing others’ values, beliefs, and behaviours; and relativizing one’s self and linguistic competence plays a key role” (p. 34). The capability to construct meaning and to appreciate others’ values with language skill at play is central to the meaning of IE (Deardorff, 2006). According to Deardorff (2011), Intercultural Competence (IC) is referred to as “an effective and appropriate behavior and communication in intercultural situations, which again can be further detailed in terms of indicators of appropriate behavior in specific contexts” (p. 66).

IE aims to endorse an intercultural dialogue that is open and full of respect, and which could only occur between individuals with diverse cultural backgrounds based on reciprocity of respect and understanding (Council of Europe, 2008). Similarly, Lourenço (2018) argued that IE aims to promote social integration, reduce social exclusion, and build a sense of respect in students toward cultural diversities and differences. Correspondingly, Kim et al. (2022) stated that IE aims to increase Intercultural Competence among European citizens to better comprehend and respect diversity to live harmoniously in such a diverse society. Furthermore, Interculturalism proclaims that educators and students should recognize oppression by fostering education for empathy and moral awareness (Bank, 2006).

### 2.2. Strategies in promoting Intercultural Competence in ECE contexts

IE aims to promote understanding of other cultures and openness towards differences (Lourenço, 2018). According to Nikawanti (2017), integrating cultural-based Education in Early Childhood will enable children to learn and understand other cultures. It is believed that the exposure or knowledge children receive at school enables them to be more aware of the other culture and their own (Caetano et al., 2020).

Not only do students learn about other cultures, but incorporating Intercultural Education can also instill in children empathy and acceptance. Besides, it is also believed that IE will increase interest and cultivate critical thinking skills in students and train them to question their perspectives and others (Byram, 2020). That being said, IE is part of the cultural-building journey for the students because it allows children to practice democracy as early as possible (Nikawanti, 2017).

For this reason, the literature has explored appropriate instruments to introduce Intercultural Education in ECE stages. Elliot (1989) argued that “If music education functions as culture, then music education may also have the potential to change prejudicial attitudes and behaviors” (as cited in Mellizo, 2019, p. 473). Oehrle (1996) added that “IE through music could be means of correcting those errant perception: a way
of breaking down the barriers and prejudices which isolate one from another” (p. 96). Moreover, in a context of ECE, Villodre (2014) adopted nursery rhymes as an example of how music can be used to introduce IE in ECE contexts, because it promote not only motor activities and linguistic competence in children, but also encourage cultural comprehension in children. Gabidullina et al. (2018) stated that “nursery rhymes, limericks, clerihews are an effective way of formation of socially-cultural competences, a bright linguocultural material in the process of intercultural education” (as cited in Achaeva et al., 2018, p. 263).

Besides using music, drama is also known as an applicable instrument to foster intercultural awareness in ECE contexts. Many studies explore the effectiveness of drama or theatre in promoting IE (Parkes, 2020; Topaloğlu, 2016). Frimberger (2016) had applied Bertolt Brecht’s theater pedagogy for IE in a university context. This experimental study found that drama pedagogy encourages critical reflection, collective learning experiences, and an embodied comprehension of intercultural experience. The study by Sipos (2020) explores the possibilities of drama in fostering intercultural awareness among students in Budapest, and it showed that drama could encourage viewpoint-taking and reflection.

Moreover, research also pointed out that through the diversity and choices provided, students are allowed to assume agency that will allow them to acquire a level of critical thinking that could be applied to their own lives (Sipos, 2020). Furthermore, Bolton and Heathcote (1998) emphasized the importance of drama in developing intercultural sensitivity. Through drama, students practice distancing themselves from their own culture and perceive themselves as others (Piazzoli, 2022). For this reason, Piazzoli (2022) added that one of the most applicable ways to promote intercultural engagement is through the arts, specifically drama.

In addition to those strategies and instruments, games and toys are considered one of the sources to introduce IE in the Early Childhood context. Lucas (2017) argued that IE is easier to be acquired and internalized through games, resulting in a more diversified and rich knowledge foundation that improves comprehension of such present cultural differences in the classroom. Correspondingly, Shliakhovchuk and García (2020) stated that video games have the potential to facilitate the growth of intercultural literacy, cultural and social literacy, cultural self-awareness, and a deeper understanding of diverse geopolitical contexts. Moreover, video games can also play a role in challenging or perpetuating bias and fostering the development of intercultural competencies (Shliakhovchuk & García, 2020).

Apart from that, art has also been used to integrate IE into the curriculum. Hajisoteriou and Angelides (2017) investigated instructors’ and students’ collaborative art-making experiences as a strategy for promoting equality IE. By employing collaborative art-making, the study discovered that students are able to voice their opinions, and the exchange of ideas among students, despite their cultural backgrounds, could be facilitated. Fleming (2023) added that the arts’ potential utility for fostering intercultural competency is not limited to exploring arts from other cultures. The arts encourage the formation of a favorable, inquisitive, and empathetic attitude toward
distinction, which is a genuine aspect of IE where the various forms of art could be helpful (Fleming, 2023).

2.3. The PETaL approach: Strategy to cultivate Intercultural Education in the ECE context

The PETaL approach (Gómez-Parra, 2021) has emerged as a solution for integrating IC into Early Childhood Education contexts. This approach emphasizes the urgency of helping students to develop IC as early as possible by realizing that children are the agents of change and part of society, who will interact with the world’s diversity.

Having adopted the approach of IE established by Byram (2020) and Deardorff (2006), the PETaL approach aims to achieve the objective of IE, that is, to reduce social inequities and build a sense of respect in students towards others and their cultural diversity (Hernández and Hermosilla, 2015). Relevant to the goal mentioned, the PETaL approach was designed to encourage ECE students to acquire second languages by developing their international communication ability and a sense of respect for otherness that is also integrated into its components.

2.4. Components of the PETaL approach

Adopting the concept of Intercultural Competencies developed (Byram, 2020), the PETaL approach addresses the four components facilitating cognitive comprehension in ECE: knowledge, skills, attitude, and behaviour (Gómez-Parra, 2021). This section will briefly discuss each component and unravel the intercultural dimension that it entails.

1.1.1. Knowledge

As an approach that adopts CLIL (Content and Language Integrated Learning) and IE, the PETaL approach emphasizes the urgency of embedding IC into the subject content of ECE educational curricula. Such urgency was instigated by the fact that culture is the component that is primarily neglected in a most bilingual context. For this reason, knowledge about intercultural diversity is embedded as one of the critical components in the PETaL approach.

Furthermore, in the context of the IC, knowledge is referred to as an understanding and familiarity with different cultures, languages, and societies (Byram, 2020). This knowledge can include information about cultural customs, traditions, history, and values, as well as an understanding of how these factors shape communication and interactions among people from different cultures. Knowledge in the PETaL approach might include understanding one’s own culture and biases, navigating cultural differences, and factual details about various cultures, such as customs, traditions, and history (Byram, 2008).

Although introducing content subjects such as history to Early Childhood may seem too complex, the PETaL approach emerged with other alternatives to fill the gap in this area which is adapted to the age of the learners, by including basic knowledge about dance or music, the meaning of clothes for others, types of games, as well as daily habits in a
different culture. By addressing the cognitive area of children from age 3 – 8 years old and integrating basic information about cultural diversity at an early stage, this approach is expected to encourage ECE children to develop their IC and promote their empathy within an international context.

1.1.2. Attitude

A person’s disposition or thinking toward various cultures, languages, and communities is referred to as attitude (Byram, 2020). Attitudes include a desire to learn about and comprehend other cultures and sentiments of curiosity, openness, respect, and empathy toward them. The knowledge of and openness to examining one’s cultural prejudices and stereotypes are also attitude traits. Attitude is a crucial component of IC. Addressing the cognition or knowledge and intercultural awareness alone will not suffice to build IC within the subject (Walton et al., 2013). Thus, attitude is listed as one of the core dimensions of the PETaL approach.

Correspondingly, Byram (2020) provides details of the elements included in the attitude component, which includes openness to other cultures and the eagerness to discover differences, respect for other cultures and their practice, empathy for people from other cultures, willingness to question one’s own cultural biases and stereotypes, positive attitude towards intercultural communication and interactions. Thus, by incorporating this dimension in the ECE context and combining it with knowledge about cultural differences, it is expected that a positive attitude that includes respect for diversity, curiosity, empathy and openness might be fostered.

1.1.3. Skills

Besides focusing on knowledge and attitude in the context of ECE, the PETaL approach further stresses the significance of intercultural skills and incorporates them into an IE strategy. Intercultural skills will assist students in enhancing their identity, promotion and establishment of an open attitude toward others (Powlishta et al., 2004, as cited in Gómez-Parra, 2021). Moreover, in the PETaL approach, intercultural skills are organized into four categories: cognitive, digital, and social and emotional. Each of these components entitles intercultural competencies as they are interrelated. By articulating intercultural skills in the Early Childhood curriculum, children are expected to adapt to the 21st century by understanding and respecting cultural, ethnic, religious, and linguistic diversity by recognizing their own identity.

1.1.4. Behavior

According to Beacco et al. (2016), the intercultural component is divided into two primary categories: (i) verbal behaviour and (ii) non-verbal behaviour. Due to the realization that verbal and non-verbal behaviour vary across cultures; the PETaL approach identified the need to incorporate behaviour as a core component. It is expected that by integrating behavioural aspects in Intercultural Education in the ECE context,
students will be able to adapt to different cultural contexts and respond appropriately to varied cultural manifestations and communication styles.

Besides, this underlying concept of verbal or non-verbal behaviour could be pursued in the classroom’s everyday context by incorporating theatre techniques or drama within the ECE context. Besides, it could be also maintained through storytelling activities (Piipponen & Karlsson, 2019), in which children could practice and develop both verbal and non-verbal behaviours in cross-cultural contexts (Urretavizcaya, 2020).

3. METHODOLOGY

3.1. Research design

This study introduces the PETaL approach to IE in Indonesia’s Early Childhood Education context, where IE is not much recognized. The study applies mixed-methods approach, utilizing a sequential exploratory design. Mixed methods research, according to Granikov et al. (2020), incorporates both qualitative and quantitative approaches. It is defined as a method of study that deliberately combines both quantitative and qualitative methods to produce a comprehensive outcome (Creswell & Clark, 2017). Mixed methods research permits to utilize the entire repertoire of methods and techniques to produce fresh information and perspectives in response to research queries (Clark, 2019).

3.2. Participants

Regarding the sampling, this study applied non-probability sampling with a purposive technique. Etikan et al. (2016) defined it as a sampling technique that does not estimate the probability of which elements in the entire universe will be incorporated into the study sample. This sampling technique enables researchers to subjectively select units representing the studied population (Etikan et al., 2016). In this case, one of the kindergartens in Serang City (Indonesia) was selected as a group study representing the population of other bilingual kindergartens in Indonesia. Purposive sampling, as described by Etikan et al. (2016), involves intentional participant selection due to specific qualities. In this approach, the researcher identifies the information needed and actively seeks individuals willing to contribute based on their knowledge and experience. In this study, the researcher seeks to evaluate the practicality of implementing the PETaL approach in the context of Early Childhood Education in Indonesia. Thus, four in-service teachers in kindergarten schools with teaching experience ranging from 93 years in ECE served as participants in both phases of the study. Two teachers were the home teachers of the higher kindergarten group which is referred to as KG B (4-5 years old), while the others were teachers of the lower group referred as KG B (3-4 y.o).

3.3. Instruments

As the study implemented a mixed methods approach, two instruments were used to collect both qualitative and quantitative data: interviews and an observation template,
validated in accordance to the Delphi method. A semi-structured interview containing six questions related to demographic information, participants’ knowledge about IE, and their experiences in applying IE in the ECE context prior to the intervention was used in this study. Similarly, a post-intervention interview containing ten questions related to teachers’ knowledge of the PETaL approach, teachers’ viewpoint of the PETaL approach as well as exploring teachers’ standpoints towards the feasible application of this approach was also utilized following the intervention. To answer RQ number 3, which seeks to observe how teachers implement this approach, semi-structured observation was used. Moreover, the observation template includes 10 areas: lesson planning, the 4 ICC components, the instruments used during the session, the interaction taking place, student engagement during the session, as well as assessment and evaluations. As for the scoring, a scale from 0 to 2 is applied to each item, indicating that the item is not observed (=0), observed with improvement (=1) and accomplished well (=2). The numerical findings will be subjected to quantitative analysis in Section 4 of the study.

### 3.4. Data collection procedure

This research adopted a mixed-method design to explore the feasibility of implementing the PETaL approach in the ECE context. Thence, the data collection procedure consisted of three different parts including pre-intervention, intervention and post-intervention. The first phase of data collection process is a pre-intervention interview. It aimed to answer the first objective and research question, which address participating teachers’ perception of the significance of IE. The data-gathering process for pre-intervention was initiated through a face-to-face interview. Once data were collected, a short in-service teacher training on the PETaL approach was carried out, consisting of a six-hour seminar, which served as the intervention of this research. Such intervention was divided into four 90-minute sessions. The discussion for in-service teacher training included a brief introduction to IE, the IE model, the importance of IE, and the PETaL approach as the strategy for IE in ECE contexts. After the intervention, two instruments, observation and interview, were used to answer the second and the third objectives and research questions. The observation was conducted in the classroom where participants usually teach. Observation lasted as long as the class. Data were gathered by using observation sheets validated by the Delphi method. Besides the notes from the diary, the observer used additional notes for research. As for the interview, the same procedure as that for the pre-intervention interview was followed.

### 3.5. Data analysis software

The data obtained were analyzed by using Atlas.ti. Data were encoded based on the focus of the study, including teachers’ perception of the importance of IE, how teachers implemented the approach, and how teachers perceived the approach. Data were analyzed by using a coded-document table. Furthermore, the data obtained were divided into three groups: teachers’ perception on the importance of IE, the implementation of the PETaL
approach, and the feasibility of implementing the PETaL approach in the ECE context in Indonesia.

Furthermore, descriptive statistics were employed to analyze the quantitative data obtained from the observation. According to Creswell (2015), descriptive statistics is an approach to analyzing data by describing the tendency of the data set, which is relevant to the study’s objective to explore how teachers implement the PETaL approach in the ECE context in Indonesia. Thus, the overall tendency of how teachers implemented the PETaL approach are presented as a mean, median and mode score. Software SPSS v.25 was used for these analyses.

4. FINDINGS

The findings of this study are presented in three different subsections, including: teacher’s perceptions towards IE, teachers’ perceptions towards the feasible application of the PETaL approach in the ECE context in Indonesia, and how teachers implement the PETaL approach in the ECE context in Indonesia, according to the three research specific objectives and the three research questions established. To keep the confidentiality of the participants, the name of each participant is anonymized: Participant 1 (P1), Participant 2 (P2), Participant 3 (P3), and Participant 4 (P4).

4.1. Teachers’ perceptions of Intercultural Education

Based on the analysis by using Atlas.ti, the study found that not all participants were familiar with the concept of IE, as illustrated in Figure 1.

Figure 1

Teachers’ familiarity with Intercultural Education

Source: Own elaboration with Atlas.ti

The research found that out of the four participants, only P2 and P3 had heard of the term “Intercultural Education” before. So, P2 and P3 showed some knowledge
regarding IE. P3 associated the term IE with cross-cultural education when being asked about their knowledge about IE. Furthermore, P2 and P3 were also able to provide some examples regarding the implementation of IE. As P2 stated “About its implementation, I am personally not so sure if I have implemented it, but in this school, we have like an end-of-year thematic event, so it’s like a cultural exhibition,” while P3 stated, “Yes, at a more significant level, like this school. Each year we have a one-day cultural exhibition about a specific culture or celebration like Kartini day.”

When it comes to asking participating teachers about their views on IE, all participants agree that integrating IE into the school context is necessary. All teachers responded affirmatively to the inquiry regarding the implementation of IE in ECE. It is evident that P1, P2 and P3 responded “necessary” to the integration of IE. P1 stated “If it is right that it is about culture, and as cultural conflict sometimes happened in the classroom among students, I would say it is necessary to implement Intercultural Education in an ECE context since students must know about cultural differences and respect each other”. Similarly, P4 agreed that implementing IE in ECE is crucial, so that children can identify the different features of each culture, including the language, typical food, and custom as P4 stated: “It is crucial since its children must learn other languages and cultures like typical foods, songs, and many more.” To sum up, despite participants’ limited knowledge of IE, these findings showed that they show a positive attitude toward the implementation of Intercultural Education in ECE.

4.2. Perception of ECE teachers towards the feasible application of the PETaL approach as a strategy for Intercultural Education in the ECE context

The second research objective (S.O.2) of this study is to know how teachers perceived the feasible application of the PETaL approach in ECE Indonesian context. Thus, a post-interview phase was conducted to explore teachers’ perceptions of the practical implications of IE. The study discovered that teachers showed positive feedback towards the implementation of the PETaL approach. All participants answered “possible,” “very possible,” or “can be implemented” when being inquired about the feasibility of integrating the PETaL approach into their teaching practices.

Following their positive responses related to the application of the approach, the participants mentioned the benefits of the PETaL approach in their teaching practices. As an illustration, P1 mentioned that the instruments of learning in the PETaL approach allow teachers to deliver material efficiently: “And for the teacher, it’s easier to convey the material”. Similarly, P2 and P4 mentioned that the instruments specified in the PETaL Approach, like toys and games, are very suitable for the children. Thus, it eases teachers to deliver the materials and teach children about IE, since it uses exciting materials.

Not only does the approach benefit teachers, but results also indicated that, according to participating teachers, the PETaL approach benefits students. The detail of this finding will be illustrated in Figure 2.
Figure 2

Benefits of the PETaL approach for students

Source: Own elaboration with Atlas.ti

P1 stated that the PETaL approach is “Beneficial. As for children, the benefit is that children can learn differences and respect differences. And for the teacher, it’s easier to convey the material”. P3 added, “So far, I have noticed some benefits of the PETaL approach. One of them is that the children can learn how to mingle with others who have different cultures or how to behave in an intercultural context.”

Furthermore, this study also found a tendency among teachers stating that the PETaL approach could make teaching and learning more exciting. Participants stated that the PETaL approach favours the teaching-learning process. P2 and P4 stated that the teaching and learning in which the PETaL approach was implemented became more exciting and engaging for the students. P2, who implemented the PETaL approach in kindergarten A (a 3–4-year-olds class), stated that “Children (learning with PETaL approach) are more interested in toys, so maybe that makes learning more interactive and more interesting.” Thus, most teachers showed positive feedback towards integrating the PETaL approach in Indonesian ECE context due to the advantages it offers which will be further illustrated in Figure 3 below.
However, when it comes to the integration of the PETaL approach in the long run, this study discovered possible challenges that teachers might face in the future. Figure 3 demonstrated the possible constrains that teachers might encounter in applying the PETaL approach.

**Figure 4**

*Possible challenges in implementing the PETaL approach*

*Source:* Own elaboration with Atlas.ti
The first challenge teachers found in applying the PETaL approach is the unsynchronized teaching practice between home and school, which was in line with the statement made by P1:

But then again, at home, with different family backgrounds, we are not sure if the child will apply what has been learned at school or not. So, I would say that is the possible challenge that teacher might face later. (P1, year: 5-6)

Additionally, this study also found that another possible challenge in implementing the PETaL approach in the Indonesian ECE context is the bureaucracy of the school. As to adapt a new approach, further discussion with the stakeholders is needed. As P4 mentioned, “it’s just that it needs to be discussed with the whole stakeholders of the school” (P4).

Furthermore, readiness of the teachers is perceived as the forecasted major challenge in the adaptation of the PETaL approach in the context of the school. P2 mentioned that “I don’t see any possible challenges so far. If there is, I think it would be about the readiness of the teachers who are lack trainings in IE and PETaL approach”. Additionally, P3 stated that “It can be implemented, it’s just that we need readiness. And indeed, it takes quite a long time to implement the PETaL approach in this context as we need more practices and trial and error as well.”

Thus, more training to implement the approach better is suggested by all participants of the study.

**Figure 5**

*Teachers’ suggestions related to the implementation of the PETaL approach*

![Diagram](source: Own elaboration with Atlas.ti)

To sum up, this study found positive feedback regarding the possibility of implementing the PETaL approach in the Indonesian ECE context. However, teachers forecasted some possible challenges in implementing the PETaL approach, one of the major constraints being teachers’ readiness.
4.3. Implementation of the PETaL approach in the Indonesian ECE context by teachers

The final objective (S.O.3) of this research is to find out the implication of the PETaL approach in ECE contexts. This study has utilized observational methods as a supplementary tool to examine how teachers implement this pedagogical approach in the Indonesian Early Childhood Education (ECE) context. The observation sheet had 25 items, including the lesson plan, implementation, student engagement, and assessment. Data collected included the mean scores (ranging from 0 to 2), showing teachers’ average level of application, with 0-0.6 scores indicated as low, 0.7-1.4 considered medium, and 1.5-2 recognized as high. These results are provided herein:

Table 1

*How Teachers Implement the PETaL approach in ECE contexts*

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Min</th>
<th>Max</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated the focus area of Intercultural Education in PETaL Approach (ICC, Instrument and enriched context).</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Integrated play as the instrument of the teaching.</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Integrated toys as the instrument of the teaching.</td>
<td>0.5</td>
<td>0</td>
<td>2</td>
<td>0.866</td>
</tr>
<tr>
<td>Integrated music as the instrument of the teaching.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Integrated art as the instrument of the teaching.</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Integrated dance as the instrument of the teaching.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Chose an activity that could promote students’ engagement.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Chose an activity that promotes creativity and cooperative learning.</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The session stimulates knowledge construction about gender.</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0.707</td>
</tr>
<tr>
<td>The session stimulates knowledge construction about stereotypes.</td>
<td>1.5</td>
<td>0</td>
<td>2</td>
<td>0.866</td>
</tr>
<tr>
<td>The session stimulates knowledge construction about race.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The session stimulates knowledge construction about physical differences.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The session encourages the openness attitude in students.</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The session encourages empathy in students.</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The session encourages acceptance attitude in students.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The session promotes students’ digital skill.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The session promotes students’ cognitive skills.</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The session promotes students’ social skills.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>The session promotes students’ emotional skills.</td>
<td>1.25</td>
<td>0</td>
<td>2</td>
<td>0.829</td>
</tr>
<tr>
<td>The session helps to develop students’ verbal behaviour (language behaviour).</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The session helps to develop students’ non-verbal behaviour such as gestures.</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Actively encourage students’ participation.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Asked questions to check students’ understanding.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
Data reported that all participants had successfully integrated the areas of IE mentioned in the PETaL approach, including the ICC components, the instrument, and the enriched context. The mean and standard deviation values for this area resulted in a high mean value and a low standard deviation (SD) value, indicating a high degree of precision. However, data showed some variety concerning the type of ICC component and instruments integrated into this context. The SD value regarding the ICC component being implemented shows a similar value to the higher mean of the item reported, which indicates some variability in the integration of the PETaL approach.

Nevertheless, despite the medium to high score presented, data also indicate the low to inadequate implementation of the PETaL approach in some areas. 4 out of 25 items indicate zero implementation, while one item shows inadequate implementation. The items with the lowest level of implementation are specifically distributed into items no. 11, 12, 15 and 16, which mainly observe the integration of ICC components during the implementation of the PETaL approach. Results show that participants need to implement one of the ICC components (i.e., knowledge), particularly on race and physical differences, reflected in items no. 11 and 12. Furthermore, findings also reported that the subcomponents related to acceptance and digital skills presented in items no. 15 and 16 respectively are not integrated into the implementation of the PETaL approach in this research context. Additionally, this research found inadequate integration of toys during the implementation. The mean value of item 3, which observes the integration of toys in implementing the PETaL approach, is 0.5. Thus, out of the four participants involved, only one participant (P3) used toys as a teaching instrument.

When it comes to the level of consistency in the implementation of the PETaL approach, data reported a varied value ranging from low to high level of variability distributed in each observation item. As shown above, the 0 value of standard deviation is illustrated in item no. 1, indicating that part of the PETaL strategy presented there was consistently implemented by all teachers, showing identical results. Also, items no. 4, 6, 7, 18, 22, 23, 24 and 25 showed S.D.=0, meaning there is no variation in the implementation scores. All teachers consistently utilized these parts of the PETaL strategy, thus resulting in identical scores.

Moreover, some observation items (3, 9, 10 and 19) showed medium value of S.D., which indicates the differences in how teachers have applied certain parts of the approach. As an illustration, the S.D. of items no. 3 and 10 showed a moderate variable with a value of 0.886, respectively. Correspondingly, the S.D. of item no. 9 is 0.707, demonstrating that the aspect of the PETaL approach presented in item no. 9 which testified if the session encourages knowledge construction about gender was implemented inconsistently by teachers, resulting in a disparity in mean scores. Item no. 19 has a S.D. of 0.829, suggesting variations in how teachers have implemented this aspect of the PETaL strategy, resulting in a moderate variety of ratings.
Furthermore, high S.D. (=1) was found for items no. 2, 5, 8, 13, 14, 17, 20 and 21. The implementation scores for these items show a higher level of variability. It implies discrepancies in how teachers have implemented these parts of the PETaL approach. Some teachers had lower ratings (=0), while others received higher ones (=2), resulting in a more extensive range. The table below summarizes the implementation of the PETaL approach in the ECE context in Indonesia.

Table 2

Summary of the results

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Min</th>
<th>Max</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Integration of areas of interculturality</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated the focus area of Intercultural Education in PETaL Approach (ICC, Instrument and enriched context)</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td><strong>Implementation of the PETaL approach</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The session stimulates knowledge construction about race.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The session stimulates knowledge construction about physical differences.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The session encourages acceptance attitude in students.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The session promotes students’ digital skill.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Integrated toys as the instrument of the teaching.</td>
<td>0.5</td>
<td>0</td>
<td>2</td>
<td>0.866</td>
</tr>
<tr>
<td><strong>Level of consistency in implementing the PETaL approach</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated the focus area of Intercultural Education in PETaL Approach (ICC, Instrument and enriched context).</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Integrated music as the instrument of the teaching.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Integrated dance as the instrument of the teaching.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Chose an activity that could promote students’ engagement.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Actively encourage students’ participation.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Asked questions to check students’ understanding.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Listen carefully to student questions.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>The session promotes students’ social skills.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Responded appropriately to students’ questions.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td><strong>Variation in the implementation of the PETaL approach</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Moderate variation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The session stimulates knowledge construction about gender.</td>
<td>1</td>
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<td>The session promotes students’ emotional skills.</td>
<td>1.25</td>
<td>0</td>
<td>2</td>
<td>0.829</td>
</tr>
<tr>
<td><strong>High level of variation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated play as the instrument of the teaching.</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Integrated art as the instrument of the teaching.</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Chose an activity that promote creativity and cooperative learning.</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The session encourages the openness attitude in students.</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
The session encourages empathy in students.  

The session promotes students’ cognitive skills.  

The session helps to develop students’ verbal behaviour (language behaviour).  

The session helps to develop students’ non-verbal behaviour such as gestures.  

Source: Own elaboration

In general, data illustrate a medium–high level of implementation of the PETaL approach in this research context. The overall means showed a positive integration of the PETaL approach by teachers in one of the kindergarten schools in Indonesia.

5. DISCUSSION AND CONCLUSION

This study explores teachers’ perceptions towards the feasibility of implementing PETaL approach in ECE context in Indonesia as well as investigating teachers’ views regarding the importance of IE. The results of this study indicate that two out of the four participants of this study were familiar with the concept of IE and were able to provide examples of its integration in the ECE context. However, the examples being offered were associated only to cultural celebrations, and the participants failed to mention other areas of IE, such as gender equality and acceptance (Roiha & Sommier, 2021). Such findings were associated to the limited exposure received by the teachers regarding the concept of IE: Rahman et al. (2021) confirmed that IE is not much discussed in Indonesia. Besides, its integration into the educational system is also considered limited, as it has only been integrated into several higher education in Indonesia (Tulak et al., 2019). Additionally, inadequate research and sources about the implementation of IE in the Asian context especially in Indonesia (Abduh & Rosmaladewi, 2018) might influence teacher’s familiarity with IE.

Despite teachers’ unfamiliarity and limited comprehension of the concept of IE, all teachers are aware of the urgency of integrating IE in the ECE context. This discovery is in line with other similar studies conducted in different contexts. The research revealed teachers’ positive attitudes toward integrating IE (Anggriawan, 2020; Mahmud, 2018). This can be due to teachers’ awareness of the benefits and objectives of IE, as participants stated that implementing IE increases students’ awareness about cultural diversity, which later helps to cultivate respect towards differences in children. This finding aligns to the literature that emphasizes the need to teach children about cultural differences, so that they can live peacefully in an environment by respecting one another (e.g., Lourenço, 2018). Additionally, teachers’ beliefs about the importance of implementing IE are significant to the objective of IE, which is to encourage students to comprehend and respect diversity (Kim et al., 2022).

Regarding the findings on ECE teachers’ perceptions on the feasible implementation of the PETaL approach as a strategy for fostering IE, this study found out that teachers responded with positive feedback towards this possibility, which, according to participants’ statements, is due to the benefits the approach brings to both teachers and
students. Besides, participants argued that the instruments specified in the PETaL approach, such as games, toys, music, and drama, are relevant to the needs of children. Thus, findings related to the integration of the PETaL approach could help teachers instill IC in students with the appropriate approach for their ages. Similarly, Lucas (2017) argued that games facilitate the acquisition and internalization of IE, resulting in a more diverse and complex knowledge base that enhances classroom comprehension of such present cultural differences. Additionally, drama, the instrument that the approach adopted promotes intercultural awareness, viewpoint-taking and reflection (Sipos, 2020). Besides, implementing art as one of the instruments in IE promotes the development of positive, empathetic, and inquisitive attitude toward differences (Fleming, 2023).

Although all participants agree that the PETaL approach can be integrated into their teaching practice, some teachers mentioned possible challenges they encounter when implementing it. One of the possible challenges discovered is that parenting style affects children’s belief about the difference. Another challenge revealed by parents when implementing the PETaL approach is the readiness of the teachers. Due to the limited period of intervention, teachers might find the need for further training and continuous monitoring regarding its implementation.

Additionally, regarding data on how teachers implement the PETaL approach in the ECE context, this study found out that all participants managed to implement the approach well. The standard deviation for most items showed a low value (0), indicating a high consistency level of the implementation of the PETaL approach in the Indonesian ECE context. The area in which teachers have implemented this approach well includes integrating IE in the PETaL approach (i.e., ICC, enriched context, and the instruments). In contrast, the other areas showed disparities in its implementation.

As an illustration, regarding the integration of the ICC component (i.e., knowledge), the study reported a high variability in its implementation, with a subcomponent of knowledge about stereotypes and gender differences becoming the two most integrated subcomponents in this context. In contrast, the other two subcomponents about race and physical differences are not observed. Such a phenomenon is attributed to the constrained understanding of the teachers regarding intercultural education. It is in line with another research finding, stating that teachers often associated IE with celebration, language, and tradition, yet failed to mention other issues related to IE, such as gender inequality and discrimination (Roiha & Sommier, 2021). Additionally, Anggiawan (2020) stated that the level of implementation of IE is connected with the level of understanding of IE itself.

When it comes to the instruments, music and dance become the instruments consistently used by all participants, followed by play, art, and toys as the less-used instruments in this context. It is presumably due to the topic of the learning that teachers selected to integrate the PETaL approach in the classroom. It is obvious that from the lesson plan being observed, participants teaching in KGB opted for Indonesian traditional dance and songs as the theme of the lesson. For this reason, dance and music became the most integrated instruments in the context. The research also found video, storybook, and role-playing as the second most utilized instruments within the context. It is probably due to the benefits that the instruments offered, as playing videos and reading the storybook related to the topic make the learning process more interactive. Role play is also
discovered as one of the instruments implemented by the participants. As Piazzoli (2022) concluded, drama is an effective instrument to promote intercultural engagement.

Besides the instruments and the ICC components, teachers generally have excellent teaching skills. It was observed that all participants could consistently promote students’ participation, ask questions to check students’ understanding and respond appropriately to students’ inquiries. It is also relevant to the S.D., which showed a low value (0) for the area mentioned. This value indicates the high level of constancy in performing such an area. The fidelity observed in this study is likely influenced by the extensive experience shared among all participants.

In summary, this study, which sought to explore the perceptions of teachers towards the importance of IE and the possible implementation of PETaL approach, demonstrated positive attitude of teachers towards both the importance of IE and its feasibility in the ECE context in Indonesia. Regarding its implementation by participants, the study reported a medium to high adaptation in the ECE context in Indonesia with medium variations in its implementation. To ensure the integration of all subcomponents, more training and continuous monitoring related to the PETaL approach are necessary.

REFERENCES


