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EMPIRIKUS TANULMÁNYOK / EMPIRICAL STUDIES

COMPARATIVE MIND MAPPING OF EXPECTATION ON INTERNATIONAL STUDENTS IN HUNGARY: IS IT BEYOND EXPECTATION?

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Abstract

The student expectation in university is one of the crucial issues a university must address. The anticipation of students had a connection with students' satisfaction and engagement in higher education. This study was qualitative research, specifically in mind mapping analysis. The instrument was two forms of mind mapping by students (before and after coming to Hungary). This study's participants were nine international students who currently study in Hungary. It was found that international students' mind mapping, type of mind mapping, and outline of general mind mapping of students' expectations had similarities and differences.

Keywords: Hungary, expectation, international students, mind mapping

Discipline: pedagogy

Absztrakt

A MAGYARORSZÁGON TANULÓ KÜLFÖLDI HALLGATÓK ELVÁRÁSAINAK ÖSSZEHASONLÍTÓ ELEMZÉSE GONDOLATTÉRKÉP SEGÍTSÉGÉVEL: TÚLMUTAT AZ ELVÁRÁSOKON?

A hallgatói elvárások az egyik olyan döntő kérdés, amellyel az egyetemnek foglalkoznia kell. A hallgatói elvárások összefüggenek a hallgatók elégedettségével, felsőoktatási elkötelezettségével. A tanulmány kvalitatív kutatást mutat be, különös tekintettel a gondolattérkép elemzésre. A vizsgálati eszköz a hallgatók gondolattérképének két formája volt (a Magyarországra érkezés előtt és után). A vizsgálatban kilenc külföldi hallgató vett részt, akik jelenleg Magyarországon tanulnak. Megállapítást nyert, hogy a nemzetközi

hallgatók gondolattérképezése, a gondolattérképezés típusa és a hallgatói elvárások általános gondolattérképezésének áttekintése hasonlóságokat és különbségeket egyaránt mutatnak.

Kulcsszavak: Magyarország, elvárás, nemzetközi hallgatók, gondolattérkép

Diszciplína: neveléstudomány

Every international student who came to Hungary expected to obtain a diploma during their studies. The question was why students' expectations matter. This expectation matters when international students meet their expectations during their study year. Full filing expectations bring students satisfaction toward their studies in Hungary. This satisfaction would also increase the quality of internationalization in Hungary. Tempus Public Foundation (2018) asserted that among the internationalization goals of Hungarian higher education, recruiting international students and offering courses in foreign languages were top priorities. As a result, providing services to international students was one of the essential activities of the international staff. Looking back at the students' expectations research, Hassel and Ridout (2018) discovered that students typically entered university with low expectations and a lack of success strategies. Findings showed that concerning anticipated academic difficulties, nearly 60% of students expected to grapple with their workload, and almost 50% believed the teaching and learning pace would be too rapid.

Regarding other difficulties, nearly 45% of students anticipated financial problems, and between 40% and 50% expected emotional difficulties (e.g, missing family and friends) and examination apprehension. Işık (2022) asserted that the students anticipated that the higher education system would provide them with social opportunities, fundamental skills for a related profession, adaptation to technological advances, and participation in

activities that would contribute to their personal development. Participating students stated that, in the context of free university/academic freedom, universities should provide opportunities such as equal access to education and participation in administration, ultimately increasing their satisfaction level. In addition, Do C.S. B. de Moraes et al. (2019) identified expectations that influence the student's relationship with the institution of higher education and are interrelated. There were student expectations regarding higher education. Higher education should consider perceptions regarding expanding university boundaries and social relations, social and individual development, teachers as mentors, living with a sense of belonging, and learning through innovative and effective methods and technologies, among other factors. Another research finding by Darlaston-Jones et al. (2003) was that there was a sizeable chasm between the expectations students have of teaching staff before enrolling in classes and the actuality of their experiences once they begin attending classes.

Previous research shows a strong bond between students' expectations and satisfaction in higher education. So, students' expectations become a crucial issue that universities must address. It had yet to be determined whether this disparity had the same effect on all students, but these students became less motivated and engaged. When expectations and engagement were high, but students encountered a new learning environment that dampened this optimism, concentration decreased gradually until a certain point, when motivation

and engagement declined abruptly. In contrast, when expectations and engagement were low and students were exposed to situations promoting optimism, engagement, and motivation progressively increased to a point where it could be anticipated (Könings & Seidel, 2022), expectations were one of the factors likely to influence a student's satisfaction with a course.

Educators benefit from comprehending the relationship between student expectations and happiness because they could influence students' expectations about a course. As we experimented with a cohort learning program for our majors' four undergraduate fundamental business courses, it became apparent that we needed to comprehend the effects of student expectations. Insofar as institutional factors, such as class size, influence student expectations, the possibility of interaction exists (Appleton-Knapp & Krentler, 2006). Information related to a sense of belonging, connection with stakeholders, the need to monitor knowledge and learning aligned with student expectations, an understanding of the intercultural context of international students, the creation of a welcoming social environment, the preparation of teachers for follow-up and transition, and the constant monitoring and improvement of methods (Do C.S. B. de Moraes et al., 2019). Because of this, it was essential for higher education institutions to collect data regarding students' perspectives and the learning experiences they had while enrolled in higher education. It would enable the students to be integrated into the required social and technological evolution of the newly established scenario. In higher education institutions, it was also important to create strategies for recognizing the distinctions between expectations and perceptions that must be met. A lack of pertinent information was blame for the knowledge gap. When this gap became too significant, students became dissatisfied. Student expectations, reputation, student activities, and how students perceive the

school's quality and value affect student happiness. These are the types of concepts that students may have and how they may influence the relationship between expectations and fulfillment (Borghi et al., 2016; Bates & Kaye, 2014).

Furthermore, to expose this issue of students' expectations, this issue proposed mind mapping to express international students' expectations of higher education. Mind mapping could be used to visualize the topic that will be represented. Using mind maps to substitute transcription was just one application of the mind mapping technique that could benefit from the developed methodology. Mind maps were remarkably underutilized in qualitative research, mainly qualitative data analysis, given the growing trend to visualize and represent data in more digestible formats. The use of mind mapping to represent interview content may be helpful for other visual representation methods by providing additional visual ways to represent the data, themes, and issues arising from the research (Fearnley, 2022).

Many people would already be familiar with mind maps in, for instance, education or problem-solving; it would be easy to acquire this skill, and it could make the process more empowering (Burgess-Allen & Owen-Smith, 2010). The purpose of mapping was to create an intuitive, logical, and concise structure that represents relevant content, complex concepts, singular ideas, and the relationships between them. At first, maps were not necessarily organized and may need to be more organized (Mammen & Mammen, 2018).

Thus, the researcher determined to gain information on international students' expectations of studying in Hungary's higher education system. Appleton-Knapp and Krentler (2006) found that the expectancy/disconfirmation paradigm was an appropriate method for investigating the relationship between student expectations and student satisfaction, given the nature of the information it provides. This research aimed to outline a mind

map of the participant's expectations before and after coming to Hungary.

Hence, this study proposed the research question: What were the differences in students' expectations before and after coming to Hungary?

Methodology

Research Design

This study was qualitative research. The design of this study was mind mapping analysis.

Participants

The international student asked to participate in this study. Nine international students participate.

The demographic information is represented in Table 1.

The Instruments

Since the design of this study was qualitative research, the instrument of this research was mind mapping. Burgess-Allen and Owen-Smith (2010) stated that its rapidity was the advantage of mind mapping over traditional qualitative data management.

International students obtained two forms of mind mapping. The mind map was rectangular, and a small box was marked with Hungary. There was also a name and date above the box. In the first box, students needed to fill in their minds before coming to Hungary; the second form was for their expectations after studying in Hungary.

Table 1. Demographic Data of Participants. Source: Authors.

Students	Gender	Age	Country	Language	Current Level of Education	Year of Study	Study Program
Participant 1	Female	25-30	Malaysia	English, Malay	Bachelor	2019	Public Health
Participant 2	Female	25-30	Malaysia	Malay, English, Hungarian	Doctoral	2019	Environmental Science
Participant 3	Female	25-30	Indonesia	Bahasa, English Indonesia,	Doctoral	2019	mathematics
Participant 4	Female	25-30	Indonesia	Bahasa Indonesia, English	Master	2022	International Economic & Business
Participant 5	Female	20-25	Indonesia	Bahasa, English Indonesia,	Master	2022	Biology
Participant 6	Female	30-40	Myanmar	English, Myanmar	Doctoral	2021	Educational Science
Participant 7	Female	30-40	Malaysia	English, Malay	Doctoral	2022	Educational Science
Participant 8	Female	25-30	Uzbekistan	Kazakhm Uzbekm Russiam English	Doctoral	2022	Educational Science
Participant 9	Female	31-50	Iran	English, Persian	Doctoral	2022	Educational Science

Data Collection

To collect the data, the researchers asked participants to participate in the study. After agreeing to join the study, the schedule was set for participants to meet. In the meeting, the researchers signed a consent form and explained the study. Then, the researchers asked the participant to sign the form if they agreed. Afterward, they obtained one mind map that they should fill in within 15 minutes. The second paper on mind mapping will be given to them when they finish the first one. Another 15 minutes would be given to them. When participants finished creating their mind maps, they explained what was in them and why they put their points in them. The researcher also asked further probing questions to find a detailed explanation of the mind-mapping. The audio recorder recorded the explanations of the participants. The procedure for data collection is shown in Figure 1.

Data Analysis

After all the data had been gathered, the mind-mapping topics were categorized based on similar and different topics based on students' expectations. After categorizing the topic of expectations, the data was interpreted. The interpretation is based on the comparison of the topic's differences and similarities. Then it visualized mannerly (Figure 2).

Research Ethics

According to the consent form, participants' information would be safe. In order to protect participants' private information, this study used anonymity for displaying the data. All of the data was confidential. There was no potential to harm participants. They also had a right to give permission or drawback the data upon their decision.

Figure 1. Procedure of data collection. Source: Authors.

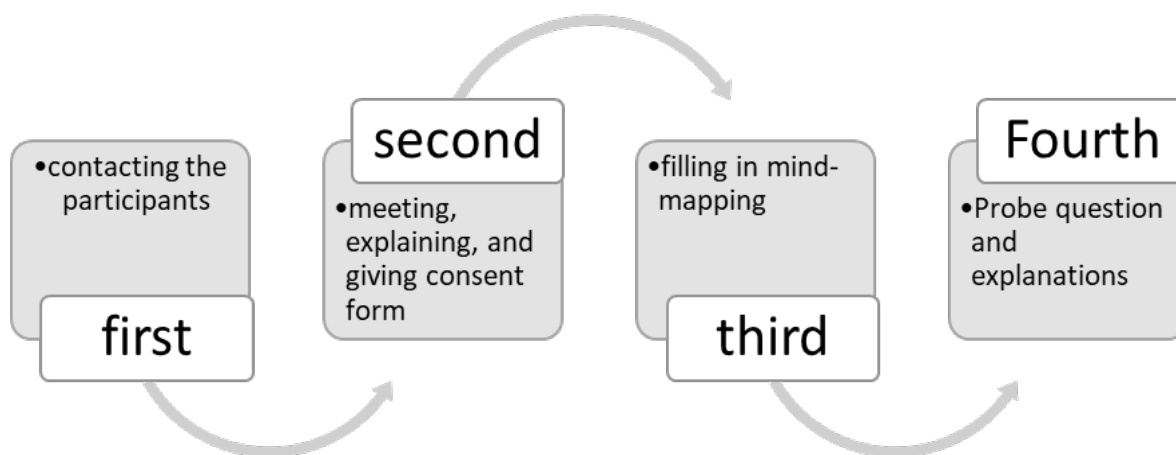
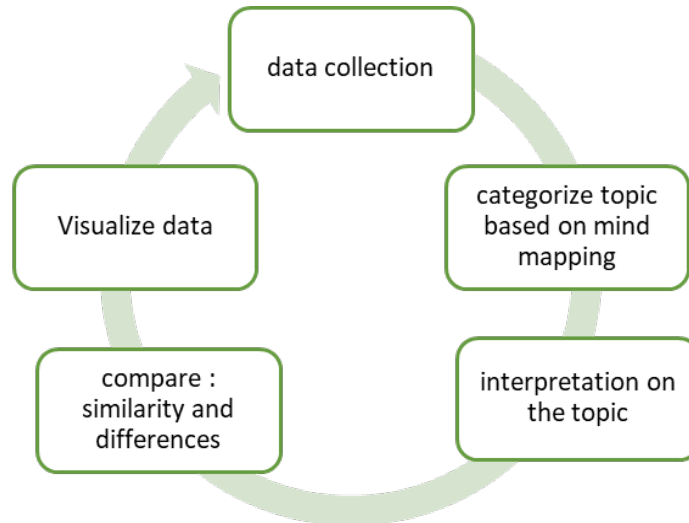


Figure 2. Data analysis of the study. Source: Authors.



Result and Discussion

Based on the results of the data, there were three vital findings from this study. It was found that international students mind mapping, the type of mind mapping of students, and the outline mind mapping of students' expectations: similarities and differences. The result showed Figure 3.

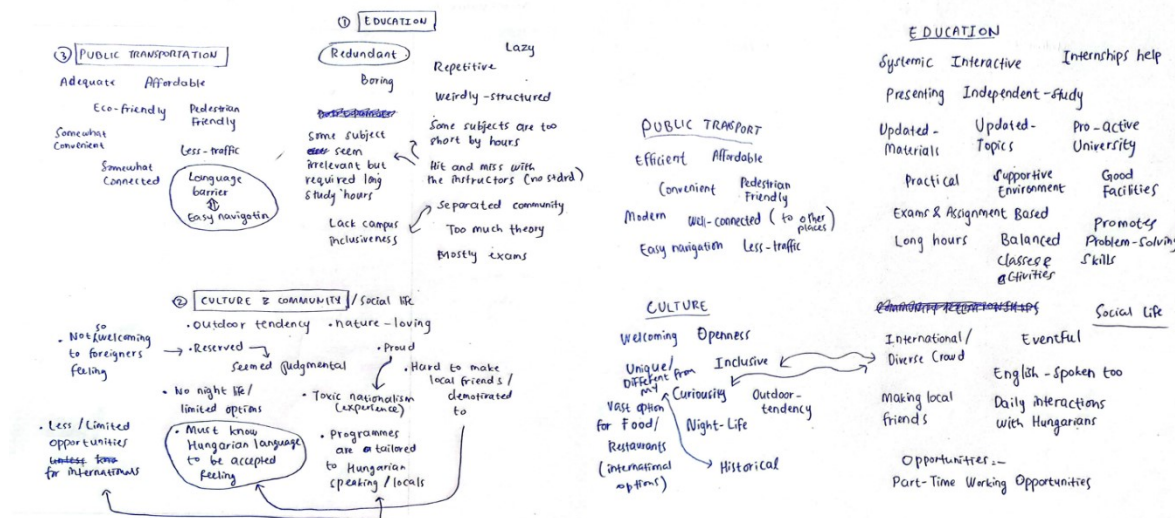
International Students Mind Mapping

There were four ideas or expectations in the participant 1's (figure 3.) mind-mapping: education, public transport, social life, and culture. First, education. In terms of education, it was totally what she expected before and after staying in Hungary. There were some different theories that she obtained, for example, on material, environment, and system. She gained different views on her expectations, such as material: she expected to have interactive, updated material and topics, a proactive university, long hours of study, independent study, and promote problem solving. However, she thought that she had gotten repetitive. Moreover, there was no standard in the program about teaching and learning in a university environment;

it was separate for local and international students, so she thought that it was supposed to be supportive. In terms of material, environment, and system, there were only good facilities that did not appear after coming to Hungary. Second, for culture and social life. Issues such as openness, nightlife, and social relations with local people arise.

Before coming to Hungary, she expected to be welcomed by the locals; however, due to the language barrier in communication, she felt that she was not welcomed by the locals. It was also hard to make friends with local friends. For nightlife, she expected that cafés and shops would be open at night. Since the main problem was language, there was no internship that she expected to have during her studies. So being a student, she still expected to have an internship. In terms of outdoor or natural visiting places, she thought that Hungarians loved nature and that this was a good thing. For historical expectations, based on probe questions, she explained that this expectation had already been fulfilled, so it would not arise again after coming to Hungary.

Figure 3. Participant 1's expectation before and after coming to Hungary. Source: Authors.

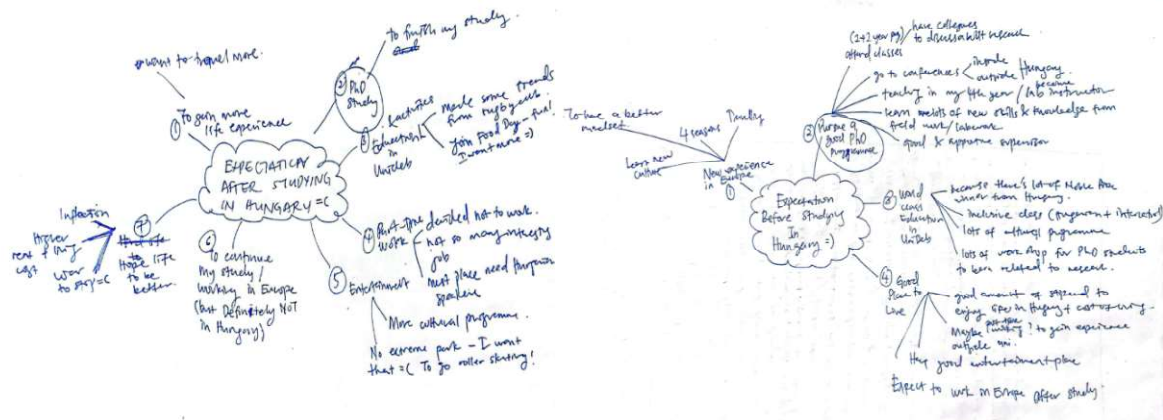


For the public transportation issue, she almost met her expectations. It meant that transportation in Hungary met her expectations. For example, efficient, affordable, pedestrian-friendly, less traffic, well connected, and convenient. However, in terms of modern and easy navigation, it was different from her expectations. It was because of the language barrier; on the signs of public transport, there was still a monolingual language, Hungarian.

Based on Participant 2's (Figure 4) mind mapping, similar categories still exist, such as academic, experience, career, and environment. However, after studying in Hungary, a new category appeared, namely economic. In terms of academics, before coming to Hungary, she expected to have discussions on research, join conferences, teach, and gain new skills related to expertise supported by a supervisor through workshops and inclusive classes. After being a student, her expectations were reduced; she only wanted to finish her studies. In terms of

experience, she wanted to learn a new culture, have four seasons, travel, and have a better mindset. To compare, after she was a student, expectations changed because all expectations based on experience were fulfilled, so a new expectation appeared. She expected to join a cultural program, travel more, make new friends, and join Food Day. In terms of career, previously she expected to do teaching and working. After coming to Hungary, this expectation changed, and this issue did not appear again. Based on the probe question, she stated that she did not expect to have a part-time job again. For the environment issue, she expected to have a good entertainment place to enjoy life. In contrast, this expectation could not be achieved because most places needed to speak Magyar or Hungarian. There were new expectations that appeared in mind mapping after becoming a student in Hungary. Due to inflation, she expected that war to stop because the price of rent was getting higher and she wanted to have a better life.

Figure 4. Participant 2's expectation before and after coming to Hungary. Source: Authors.



The third participant (Figure 5) had similar expectations before and after coming to Hungary. The differences only on expectations were reduced. From the probe question, some of her expectations were achieved, so she reduced her expectations.

Moreover, she stated that she still needed to maintain some expectations, such as a safe community, a modern city, student exchange, international

collaboration, a well-arranged curriculum, and friendly locals. In terms of expectations that did not meet her expectations, such as various communities and spicy food, she still wrote them in her mind map.

She stated that she still expected to have classmates who came from various communities, and she also expected that Hungary had spicy food that she used to eat in her home county.

Figure 5. Participant 3's expectation before and after coming to Hungary. Source: Authors.

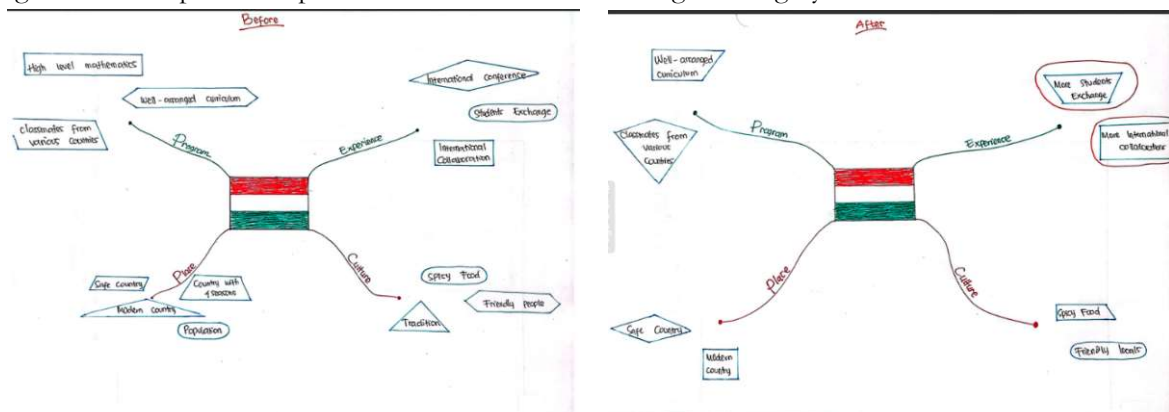
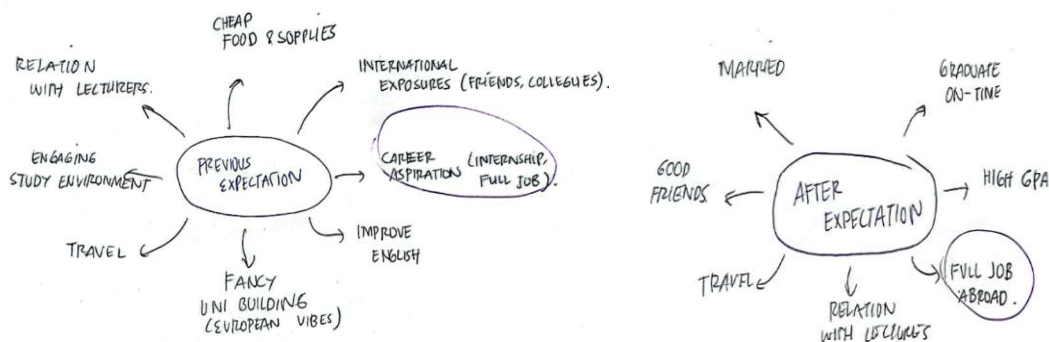


Figure 6. Participant 4's expectation before and after coming to Hungary. Source: Authors.



From participant 4's mind-mapping (Figure 6), the similarities in expectations before and after coming to Hungary were almost the same. For example, in social work, she expected to have international exposure and a relationship with lecturers. In terms of career expectations, she expected to have an internship and a permanent job after graduation. In previous academic expectations, she did not expect anything. For language, she expected to improve her English. As a student, she expected to graduate on time and had a high GPA. In contrast, comparing before and after, there was a new expectation that arose in the mind map, both economic and personal. After coming to Hungary, she expected that food and supplies would be cheap. In terms of personal expectations, she expected to get married in Hungary.

From the Participant 5's and Participant 6's (Figure 7, 8) mind mapping above, it showed that the participants expectations before and after were similar, so from the probe question, she said that

her expectations before and after were similar, so she only wrote one. She explained that there were some expectations that she could not achieve, so she gave a symbol besides the expectation points. There were symbols such as equal ($=$) and unequal (\neq). From expectations that had the symbol equal ($=$). For better living styles, peaceful environments, and healthy environments, explore Hungary and its culture in a facilitated or resourceful learning environment.

Based on the probe questions, she said that Hungary met her expectations. In contrast, there was an expectation of quality in education that she was still confused about whether it was achieved or not. So that she said she gave a question mark sign besides mind mapping. With the expectation of traveling to European countries, she hoped that she could travel, but due to a loan from her home country, she could not. She saved her money to pay her loan, but she still expected to travel, especially to a lavender field, because before coming to Hungary, she expected to travel to a country that had a lavender field.

Figure 7. Participant 5's expectation before and after coming to Hungary. Source: Authors.

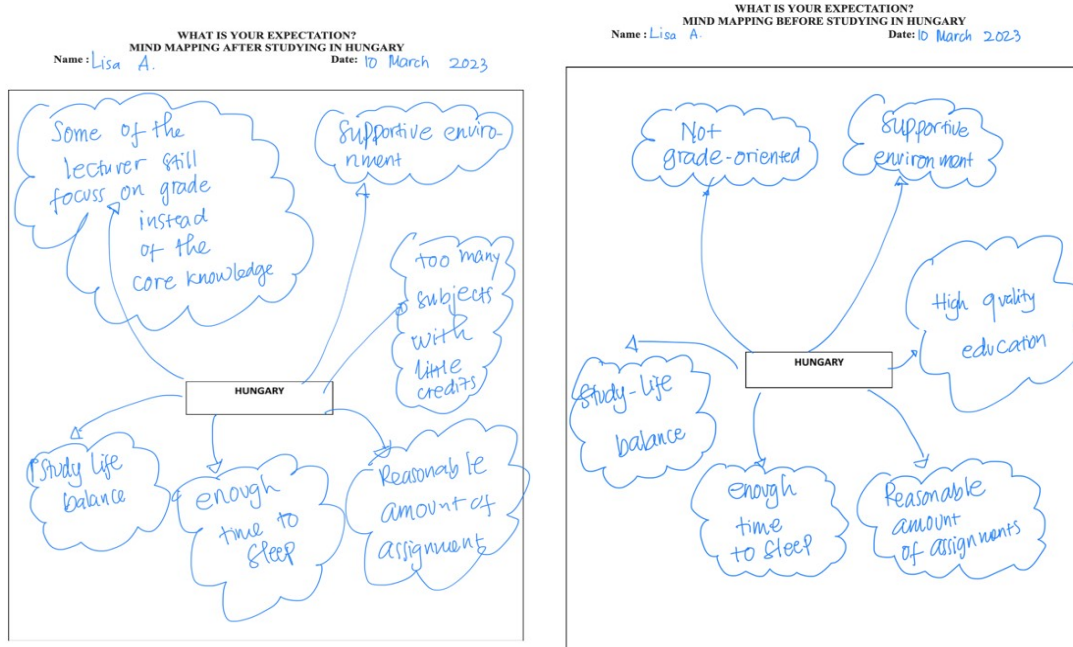
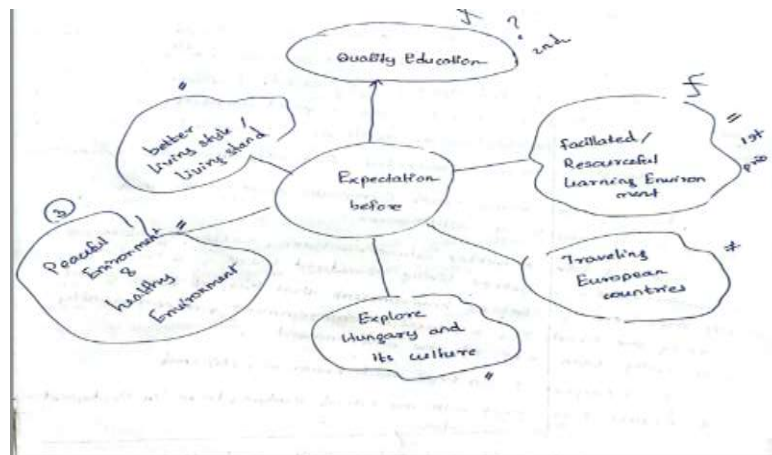


Figure 8. Participant 6's expectation before and after coming to Hungary. Source: Authors.



Participant 7 (Figure 9) clearly wrote her point about her expectations before and after. Based on the probe question, she said there were only three crucial expectations for her, such as language and administration procedures. Before coming to

Hungary, she already knew that the language would be her challenge. So, she wrote about the English barrier, and when she arrived in Hungary, she found out that her expectations were true. In contrast, her accommodation did not meet her

expectations; she found that it was expensive. Another expectation was a monolingual signboard; she expected that the university signboard would be written in two languages: English and Hungarian.

However, she found that the signboard at the university only wrote in Hungarian. For the admirative process, she expected from her home

country that she would find a good system in the health and immigration offices. However, the system in Hungary was not as similar as she expected. She expected a quick response when she visited the medical center and hoped that the appointed process in immigration was easy and systematic; however, in reality, she thought that it was poorly managed.

Figure 9. Participant 7's expectation before and after coming to Hungary. Source: Authors.



Figure 10. Participant 8's expectation before and after coming to Hungary. Source: Authors.



To see the participant 8's (Figure 10) before and after, the differences that she expected to have entertainment after studying in Hungary tended to focus on academic, language, experience, social, and personal expectations. Economic expectations (getting scholarship money) did not exist before she came to Hungary. It was because she had achieved that expectation. Another expectation, such as experiences (new experiences and travel in Europe), was similar to what I had before coming. In terms of social expectations, she had the same as before, but she also did not expect to join student activities. However, she also still expected to have acquaintances in Hungary. Academic expectations became more specific based on the professional skills that she mentioned, and they narrowed down too. She expected to publish an article and a book. She also still wanted to become a specialist and expected to obtain an award. Another expectation that appeared after being a student in Hungary was that she expected to learn a new language, Hungarian.

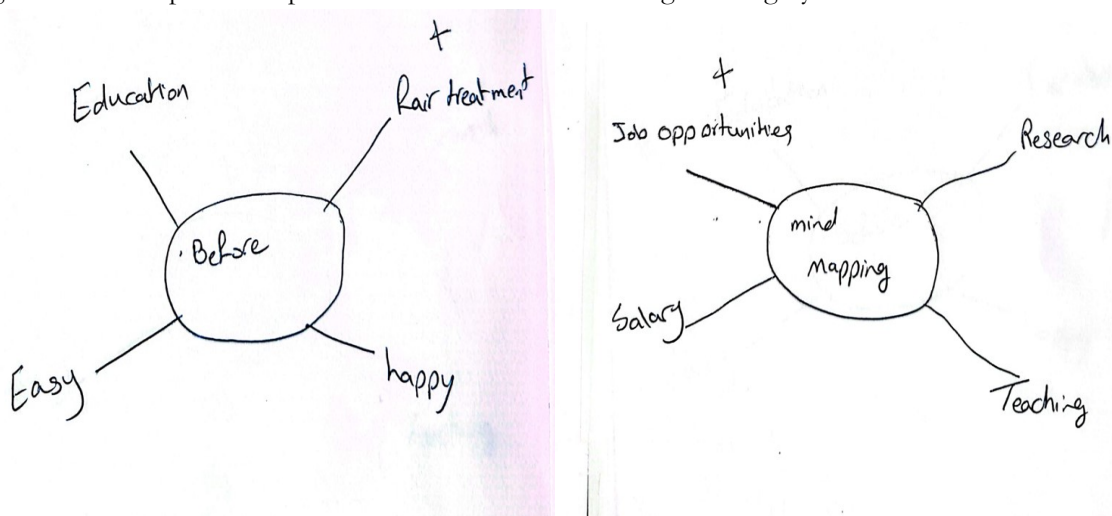
Based on the probe question, she said that in terms of cruciality of expectations, he said that living in Hungary and raising children in Europe

was vital for her expectations.

To categorize participant 9's (Figure11) expectations before and after coming to Hungary, there were three expectations that appeared based on the mind-mapping. Before moving to Hungary, she only wrote about education or academic expectations. From the probe question, she said that there was a difference in the mind-mapping: before coming to Hungary, she expected to study because when she was in her home country, she did not study, so when she was going to Hungary, she expected to study. After being a student in Hungary, her expectations became more specific; she wanted to do research.

Second, for personal expectations, she expected easy, happy, and fair treatment. This expectation did not appear after she became a student in Hungary because she tended to focus on her career and academics. Differently, a new expectation arose, namely, career. She expected to have job opportunities and a salary in Hungary. Despite her expectations after coming to Hungary to only focus on academics and her career, she said that the crucial expectation was that she would receive fair treatment.

Figure 11. Participant 9's expectation before and after coming to Hungary. Source: Authors.



Types of Mind Mapping in Students

According to the results of mind mapping, nine participants had various types. The first type were students who expected many things academically; they expected similar expectations again after being students in Hungary. The second type were students who had some expectations, but after being students, they did not achieve them. The third type was that students who achieved expectations would reduce their expectations, and after being students in Hungary, previous expectations would appear as new expectations or change expectations (Figure 12). In terms of shape, international students who created mind mapping also had preferences for how to draw their mind mapping, for example, a circle map, a flow map, a

bubble map, et cetera. However, this type of mind mapping did not meet the student's expectations.

Outline Mind Mapping of Students' Expectation : Similarities and Differences

Based on the result of the students' expectations in mind mapping, there were some categories that existed. The international students expected academics, experiences, administration, culture, transportation, personal expectations, language, career, and environment. This outline of categories drew from participant mind mapping similarities before and after and the cruciality of student expectations (Figure 13).

Figure 12. Type of students expectation. Source: Authors.

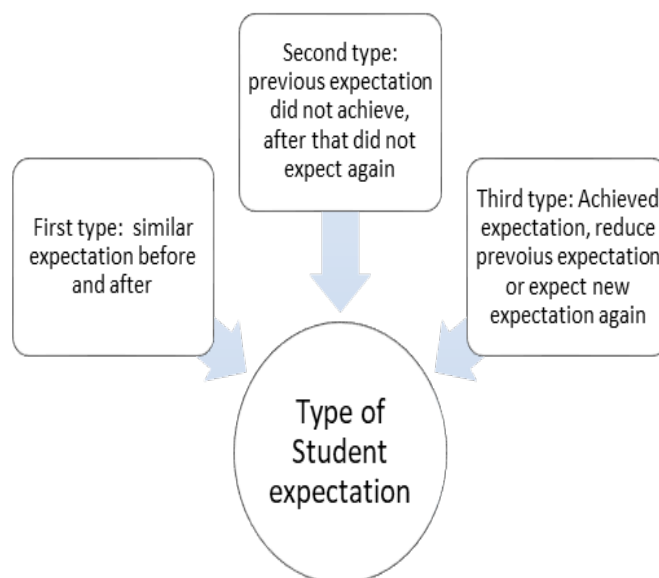
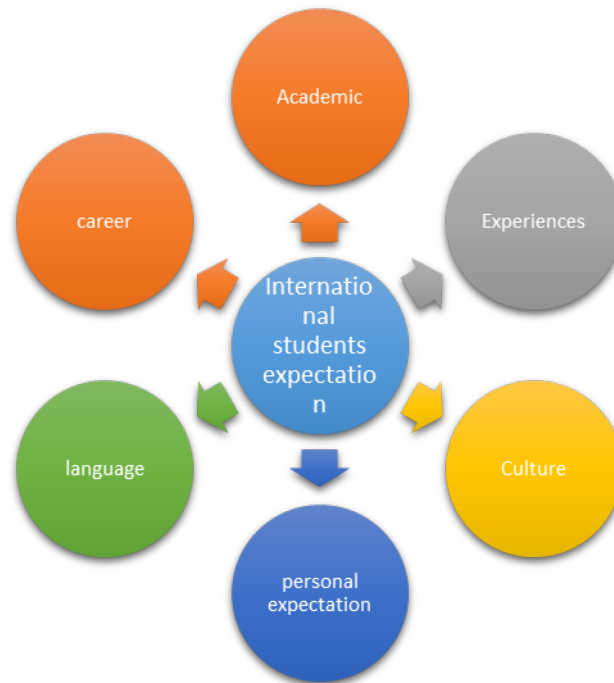


Figure 13. Outline of Similarities International Students Expectation Academic. Source: Authors.



International Student Expectations on Academic: Based on the analysis, I found that some of the students' expectations were academic. International Student Expectations on Academic: systematic, well-arranged curriculum, interactive graduate on time, practical, high GPA, internship, focus on core knowledge, balance class activities, reasonable amount of assignments, updated material, quality education, good facilities, research, new skill, conference, supportive supervisor, balance subject hours and credit.

Interestingly, it is found that there were two participants (participants 7 and 8) who did not have academic expectations. For participant 7, there were no academic expectations before or after coming to Hungary. For participant 8, she did not have expectations for academics before coming to Hungary; however, after being a student in

Hungary, she had new expectations on academics.

International Students Expectations on Experiences: Four seasons, student exchange, international collaboration, and traveling in Europe. For experience expectations, out of nine participants, there were three who did not write about any expectations about the experience (participants 5, 7, and 9). As a result, it was because they tend to have priorities besides experiencing expectations.

International student's expectations of culture: unique, spicy food, historical, tradition, variance foods, friendly locals, night life (café, shop), European vibes (fancy building), tailoring program with local people, exploring Hungary and its culture, actively participating in student events. Based on their experiences before and after coming to Hungary, international students expected to

have culture in their mind maps. There were three students (participants 5, 7, and 9) who did not expect to learn about culture.

International Student's Expectations on Personal: married, raising children, study life balance, fair treatment, enough sleep, happiness, better living style, easy, friendliness, stay in Europe. There were three participants who did not have any expectations related to their personal expectations. They were participants 1, 2, and 3. Meanwhile, the rest of the participants had personal expectations for living and studying in Hungary.

International Student's Expectations on language: must know Hungarian to be accepted, bilingual language navigation, most places require Hungarian, bilingual signboard, learn local language (Hungarian). In terms of language expectations, there were only four participants who had language expectations while studying in Hungary. However, the number of students who did not mention language was five.

International Student's Expectations on Career: internship, work after finishing studying, lab instructor, permanent job, teaching, job opportunities. For career expectations, there were five participants (participants 1, 2, 4, and 8) to expect related to their career. Five of them did not write about their expectations for their careers.

International Student's Expectations of the Environment: nature-loving, extreme park (for example, rolling coaster), engaging study, environment, supportive environment, peaceful and healthy environment. According to the results, there were five participants who wrote about environmental expectations. Yet, there were four participants who did not mention this.

In addition, based on the result, there were also expectations that were not similar among the participants. There were two of them that appeared to have no similarities among participants: transportation and administration. Figure 14 displays the differences in expectations.

Figure 14. Outline of Differences International Students Expectations. Source: Authors.



International Students Expectations on Transportation: adequate, affordable, eco-friendly, pedestrian-friendly, convenient, well-connected, less traffic and easy to navigate. There was only one participant who focused on transportation. For transportation expectations, it was believed that she achieved them.

International Student's Expectations on Administration: appointment time, website of appointment manageable. For administration, there was also one participant who was concerned about this matter. Especially about health centers and immigration.

Discussion

According to the result, the similarity of international students' expectations in the categories of academic, experience, culture, personal expectation, language, and career could be found while the differences could be found in administration and transportation. In the academic aspect, there were some students who expected that they would obtain a better education system in Hungary. For

example, study program standards, teaching and learning materials, and evaluation. There were also international students who expected that she would give them enough time to sleep while doing her master's degree in Hungary. This finding is in line with the statement that these students were likely to struggle more with the workload, the teaching tempo, and independent study (Hassel & Ridout, 2018b). Moreover, this result of students' expectations on academics was vital since it showed students satisfaction with the Hungary education system and their attitude toward it. Student expectations at the postsecondary level consist of a complex web of beliefs regarding courses, instructors, evaluation, institutions, programs, and university life. Students' failure to meet these numerous expectations could have serious repercussions. Unmet expectations could have a significant impact on the classroom conduct and overall engagement of students (Lobo & Gurney, 2014). Besides, it revealed that because of the unclear system, it made students lazy to learn. These findings support the proposed relationship between motivation and expectations but also show that learning and affective processing strategies have an impact on expectations (Könings et al., 2008). Because some of their expectations in various aspects did not meet their expectations, some of the students decided to reduce their expectations when they were already in Hungary; however, some of them still wrote again in order to meet their expectations again. So, in order to attempt to bridge the distance between divergent expectations, it would be beneficial to consider various points of view (Hassel & Ridout, 2018b). It was also found that, in terms of language, there were students who expected to improve their English (Lobo & Gurney, 2014).

In addition, in the terms of experience and culture, most international students expected that while studying in Hungary, they would travel in Europe. The reason was that all of the participants

came from Asian continents. They believed that travel also became part of their study in Hungary. They also expected that they could meet locals and make friends with them. Travel and cultural enrichment were characteristics that distinguished study abroad from study in the home country, where contacts with native speakers and cultural experiences are quite limited (Badstübner & Ecke, 2009). Even though the expectation to meet local people in Hungary had little chance for them, some of them still wrote that they could make friends with them, but a language barrier still existed because international students did not speak Hungarian. Moreover, in terms of experiences, international students expected that they would feel the four seasons in Europe, join exchange programs, and collaborate. Results indicate that "expectations" vary significantly across cultural groups (Armstrong et al., 1997). Meeting with academic staff at the beginning of their program; their level of engagement with the learning community within their program; their level of engagement with their own studies; academic staff's command of the English language; the university's orientation program; a fair and transparent assessment of their work in class; the quality of classes; and the explanation of grading and assessment criteria (Ammigan & Drexler, 2021). The target for international students was to meet more members of various communities to make bigger networking connections. Evidently, their travel behavior was constrained by financial and time constraints and travel mechanisms (Gardiner et al., 2013).

As the results also showed about the environment, according to the findings of the study, adolescents perceived that their career goals were influenced by personal, background, and environmental factors (Paa & McWhirter, 2000). There was a positive relationship between expectations and the point of view of the environment that was measured. Based on the result, the greater the

expectations, the greater the subsequent perceptions. The lower the expectations, the lower the subsequent perceptions. The relationship between the second and third measurements of perception was also evidently positive. In addition, prospective dissatisfaction with the new surroundings is associated with actual dissatisfaction after one year, and dissatisfaction after one year of participation in the surroundings is associated with dissatisfaction (Könings et al., 2008). The international student expected a natural, engaging, supportive, and healthy environment. As demonstrated by this research, students' hopes for a new learning environment were not necessarily consistent with their subsequent perceptions, and, more importantly, students' expectations had a significant impact on how they perceived the environment after it had been implemented. Perceptions influence learning behaviors and learning environment's efficacy (Könings et al., 2008).

This study also discovered the fluctuating expectations of international students. It showed that before and after expectations tended to focus on study and career. The reason was that the expectation prior to flying to Hungary appeared because they did not know Hungary in detail. When international students' prior knowledge is insufficient, they make erroneous assumptions about real-world circumstances. All of these changes in motivation were attempts to find balance with the impending educational burden. Additionally, it was essential that she maintain a positive attitude toward the new environment in order to remain academically motivated (Mao et al., 2022). After becoming students in Hungary, international students could measure their expectations by which one met them and which one did not. So, the shifting of expectations happened and they became more focused on finishing their studies and finding a job for themselves. Throughout their academic careers,

international students could experience multiple shifts in motivation designed to narrow the disparity between expectation and reality.

In this way, international students' awareness of perceiving conflicts between expectation and reality might provide them with an excellent opportunity to reflect and grow. In reality, it might be difficult for them to form precise expectations when traveling to intercultural destinations. When students encounter unanticipated challenges and obstacles, it is recommended that they alter their motivation in a timely manner in order to find alternative solutions in order to deal with new obstacles and achieve sustainable development (Mao et al., 2022). The research findings indicated that the motivations of international students changed and adapted as a result of their interaction with their new environment. Their motivational shift and adjustments were closely tied to the fluctuating difference between their expectations and reality, as well as their growing intercultural experiences (Mao et al., 2022).

Conclusion

This study found that international students expectations were dynamic. Before coming to Hungary. They expected many things in terms of academics, environment, culture, experience, language, and personal desires. It was because they did not have prior knowledge on Hungary. After coming to Hungary, the expectations that they had before influenced their perspective about Hungary. It also meant that it was beyond their expectations. So, there were three types of expectations that existed that were found in this study. The first type were students who expected many things academically; they expected similar expectations again after being students in Hungary. The second type were students who had some expectations, but after being students, they did not achieve them. The third type was that students who achieved

expectations would reduce their expectations, and after being students in Hungary, previous expectations would appear as new expectations or change expectations. This type helped them maintain their motivation to continue studying in Hungary. It was also discovered that after coming to Hungary, international students' expectations tended to focus on finishing their studies and expecting to have job opportunities, whether inside or outside Europe.

References

- Ammigan, R., & Drexler, M. L. (2021). Exploring the relationship between academic performance and the international student experience: Implications for university support offices and academic units. In Mohamad, M. & Boyd, J. (Eds.). *International Student Support and Engagement: Innovative Practices for Universities*. Routledge.
- Appleton-Knapp, S. L., & Krentler, K. A. (2006). Measuring student expectations and their effects on satisfaction: The importance of managing student expectations. *Journal of Marketing Education*, 28(3), 254–264. DOI [10.1177/0273475306293359](https://doi.org/10.1177/0273475306293359)
- Armstrong, R. W., Mok, C., Go, F. M., & Chan, A. (1997). The importance of cross-cultural expectations in the measurement of service quality perceptions in the hotel industry. *International Journal of Hospitality Management*, 16(2), 181–190. DOI [10.1016/s0278-4319\(97\)00004-2](https://doi.org/10.1016/s0278-4319(97)00004-2)
- Badstübner, T., & Ecke, P. (2009). Student expectations, motivations, target language use, and perceived learning progress in a summer study abroad program in Germany. *Die Unterrichtspraxis/Teaching German*, 42(1), 41–49. DOI [10.1111/j.1756-1221.2009.00034.x](https://doi.org/10.1111/j.1756-1221.2009.00034.x)
- Bates, E. A., & Kaye, L. K. (2014). “I’d be expecting caviar in lectures”: The impact of the new fee regime on undergraduate students’ expectations of higher education. *Higher Education*, 67(5), 655–673. DOI [10.1007/s10734-013-9671-3](https://doi.org/10.1007/s10734-013-9671-3)
- Borghi, S., Mainardes, E., & Silva, É. (2016). Expectations of higher education students: A comparison between the perception of student and teachers. *Tertiary Education and Management*, 22(2), 171–188. DOI [10.1080/13583883.2016.1188326](https://doi.org/10.1080/13583883.2016.1188326)
- Burgess-Allen, J., & Owen-Smith, V. (2010). Using mind mapping techniques for rapid qualitative data analysis in public participation processes. *Health Expectations*, 13(4), 406–415. DOI [10.1111/j.1369-7625.2010.00594.x](https://doi.org/10.1111/j.1369-7625.2010.00594.x)
- Darlaston-Jones, D. K., Pike, L., Cohen, L., Young, A. H., Haunold, S., & Drew, N. M. (2003). Are they being served? Student expectations of higher education. *Educational Research*, 13 (1), 31–52.
- Fearnley, C. J. (2022). Mind mapping in qualitative data analysis: Managing interview data in interdisciplinary and multi-sited research projects. *Geo: Geography and Environment*, 9(1), 1–19. DOI [10.1002/geo2.109](https://doi.org/10.1002/geo2.109)
- Gardiner, S., King, B., & Wilkins, H. (2013). The travel behaviours of international students: Nationality-based constraints and opportunities. *Journal of Vacation Marketing*, 19(4), 287–299. DOI [10.1177/1356766712471233](https://doi.org/10.1177/1356766712471233)
- Hassel, S., & Ridout, N. (2018a). An investigation of first-year students’ and lecturers’ expectations of university education. *Frontiers in Psychology*, 8, 2218. DOI [10.3389/fpsyg.2017.02218](https://doi.org/10.3389/fpsyg.2017.02218)
- Işık, M. (2022). Expectations and level of satisfaction of university students from the higher education system. *International Journal of Educational Methodology*, 8(1), 163–178. DOI [10.12973/IJEM.8.1.163](https://doi.org/10.12973/IJEM.8.1.163)
- Könings, K. D., Brand-Gruwel, S., van

- Merriënboer, J. J. G., & Broers, N. J. (2008). Does a new learning environment come up to students' expectations? A longitudinal study. *Journal of Educational Psychology*, 100(3), 535–548. DOI [10.1037/0022-0663.100.3.535](https://doi.org/10.1037/0022-0663.100.3.535)
- Lobo, A., & Gurney, L. (2014). What did they expect? Exploring a link between students' expectations, attendance and attrition on English language enhancement courses. *Journal of Further and Higher Education*, 38(5), 730–754. DOI [10.1080/0309877X.2013.817002](https://doi.org/10.1080/0309877X.2013.817002)
- Mammen, J. R., & Mammen, C. R. (2018). Beyond concept analysis: Uses of mind mapping software for visual representation, management, and analysis of diverse digital data. *Research in Nursing and Health*, 41(6), 583–592. DOI [10.1002/nur.21920](https://doi.org/10.1002/nur.21920)
- Mao, Y., Ji, H., & Wang, R. (2022). Expectation and Reality: International students' motivations and motivational adjustments to sustain academic journey in Chinese universities. *Frontiers in Psychology*, 13, 833407. DOI [10.3389/fpsyg.2022.833407](https://doi.org/10.3389/fpsyg.2022.833407)
- Moraes, D. C.S. B., Montebello, I. M., Zaccaria, B. R., & Cremonesi, G. O. G. (2019). Identification of students' expectations regarding higher education in the new social context: a meta-analytic study. *Brazilian Journal of Marketing*, 18(3), 222–245. DOI [10.5585/remark.v18i2.16373](https://doi.org/10.5585/remark.v18i2.16373)
- Paa, H. K., & McWhirter, E. H. (2000). Perceived influences on high school students' current career expectations. *Career Development Quarterly*, 49(1), 29–44. DOI [10.1002/j.2161-0045.2000.tb00749.x](https://doi.org/10.1002/j.2161-0045.2000.tb00749.x)
- Tempus Public Foundation. (2018). *International students in Hungarian higher education institutions*. Tempus Public Foundation. www.campusmundi.hu

**THE EXPERIENCES OF PHYSIOTHERAPY IN PRESCHOOLS
IN THE LIGHT OF A KINDERGARTEN RESEARCH IN HAJDÚBÖSZÖRMÉNY**

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Abstract

The literature and research on physiotherapy in Hungary are not as complete as the research on physical education, so this article is also incomplete. Our research aimed to report on the experiences of physiotherapy sessions for preschool children within the physical education sector, as this area is less researched. Our research presents the experiences of children and their parents who have participated in pre-school physiotherapy in a sample of children attending the Good Shepherd Reformed Kindergarten in Hajdúböszörmény. The results are presented based on the analysis of a questionnaire filled in by 50 parents and an interview with the physiotherapy teacher who teaches in the kindergarten. The survey shows that 8% of parents of preschool children did not know that their child was attending such sessions,

92% of parents were informed, but 20% did not know how many development sessions their child was attending. The majority of parents follow up on their child's development, but consider the information provided by the teacher to be insufficient. The vast majority of parents were also aware of their child's diagnosis. Parents' opinions showed that they consider the existence of physiotherapy sessions important, as they consider it essential for the effective development of a growing organism. Parents also noted positive effects of physiotherapy sessions, such as improved posture, flexibility, reduced orthopaedic deformities, increased endurance, or improved dexterity and hand-foot coordination. Another important aspect, according to parents, is that these sessions are free of charge, take place during nursery school hours and they are playful. According to the physiotherapy teacher, the number of sessions is not sufficient to achieve optimal improvement, given that the vast majority of children only receive development in kindergarten. These results are useful and can be used in the training of kindergarten teachers or further training courses.

Keywords: pre-school physical education, parents' opinions, deformities, internal medicine diseases

Diszciplína: pedagogy

Abstract

AZ ÓVODAI GYÓGYTESTNEVELÉS TAPASZTALATAI EGY HAJDÚBÖSZÖRMÉNYI ÓVODAI KUTATÁS TÜKRÉBEN

A gyógytestnevelés témakörében a hazai szakirodalmak és kutatások nem képeznek olyan teljességre törő rendszert, mint a testneveléssel foglalkozó kutatások, ezért ez a cikk is hiánypótló. A kutatásunk célja volt, hogy a gyógytestnevelésen belül az óvodáskorúak számára biztosított gyógytestnevelési foglalkozások tapasztalatairól számoljunk be, hiszen ez a terület kevésbé kutatott. A kutatásunk az óvodai gyógytestnevelésben részt vett gyerekek és szülei tapasztalatait mutatja be a hajdúböszörményi Jó Pásztor Református Óvodába járó gyerekek mintáján. Az eredményeket 50 szülő által kitöltött kérdőív, és az óvodába tanító gyógytestnevelő pedagógussal folytatott interjú elemzésére alapozva ismertetjük. A kutatásból kiderül, hogy az óvodáskorú gyermekek szülei közül 8% nem tudott arról, hogy gyermeke részt vesz ilyen foglalkozáson, a szülők 92%-a informált volt, azonban 20%-uk nem tudta, hogy hány fejlesztési alkalomban részesül gyermeke. A szülők többsége nyomon követi gyermeke fejlesztését, azonban kevésnek ítélik meg a pedagógus által közölt információkat. A szülők döntő többsége a gyermekük diagnózisával is tisztában volt. A szülői vélemények azt mutatták, hogy fontosnak tartják a gyógytestnevelési foglalkozások meglétét, hiszen nélkülözhetetlenek tartják a növekedésben lévő szervezet hatékony fejlesztésére. A szülők a gyógytestnevelés foglalkozásoknak olyan pozitív hatásait is tapasztalták, mint, javult a gyermek tartása, a hajlékonysága, az ortopédiai elváltozások mértéke csökkent, erősödött a kitartás, vagy javult a mozgásügyesség és a kéz-láb koordináció. Szintén lényeges szempont a szülők véleménye szerint az, hogy ezek a foglalkozások ingyenesek, óvodai időben történnek és játékosak. A gyógytestnevelő pedagógus szerint a foglalkozások száma nem elégséges ahhoz, hogy optimális javulást érjenek el, tekintettel arra, hogy a gyerekek döntő többsége csak az óvodában kap fejlesztést. Ezek az eredmények hasznosak és felhasználhatók az óvodapedagógus képzésben vagy a szakirányú továbbképzésekben.

Kulcsszavak: óvodai gyógytestnevelés, szülői vélemények, deformitások, belgyógyászati betegségek

Diszciplína: neveléstudomány

Introduction

A sedentary lifestyle leads to negative changes not only in adults but also in young children (Simon, 2022 a, b). Today, there is an increasing number of children with internal medicine or orthopaedic problems who, for various reasons, do not receive the development they need at the right time (Fülöp and Pipó, 2023; Gaál and Bencze, 2004). Furthermore, they do not participate in the physical education or physiotherapy that is appropriate for them, which may be preventive, corrective or corrective, to ensure their optimal development (Ramocsa, 2005; Hidvégi & Müller 2015; Andrásné, 2000, 2017). The consequences of the situation caused by the COVID-19 virus have caused a significant disadvantage for the development of children with different developmental stages and delayed development in the areas of various physical development and special pedagogic developments. (Vargáné, 2021; Višnjić-Jevtić et al. 2021; Mező, 2022).

In today's fast-paced world, parents place less emphasis on prevention, i.e. preventing problems and maintaining a healthy state, even though many internal medicine and orthopaedic problems could be prevented with increased and continuous attention. Parents often reassure themselves by saying that it is genetics because they have had similar problems themselves. However, this is not entirely true, as a growing body of literature (Andrásiné et al., 2000) on preschool child development shows that in such cases, too, children learn by imitation, as in any other areas - cognitive abilities, emotions, play etc. (Vargáné és Pálfi, 2016; Mező, 2018; Pálfi, 2019). As a consequence, regular medical assessments of children at an earlier age are necessary to maintain or correct the level of already established abnormalities, so that the physiotherapy teacher can contribute to the effective development of children in physical education and the highest possible level of recovery of pathological abnormalities by providing them with a high level

of theoretical and practical knowledge (Hidvégi & Müller, 2015, Simon & Kajtár 2015). The need for exercise and the protection of the child's health is a fundamental right of the child, and the satisfaction of the child's physical needs is the reference point of the Hungarian Kindergarten Core Program (Pálfi et al. 2020). In addition to providing free movement for preschool children, physical activity classes and recreational sports or physical activities with the family can be a key tool for primary prevention, as a healthy lifestyle can be well established at this age through the development of a wide range of movement and skills (Wolf 2022).

Material and method

Our study included 50 participants, the target group of which were parents of preschool children attending the Jó Pásztor Reformed Kindergarten in Hajdúböszörmény, whose children regularly participate in physiotherapy activity. The sample consisted of 50 participants, all of whom filled in the questionnaire in an assessable manner, allowing the results to be analysed. Completion of the questionnaire was voluntary and anonymous so that the identity of the respondents could not be identified in any way. At the institutional level, all the parents concerned participated in the survey, so the sample size was adequate, depending on the composition of the group. As a result, the survey is considered relevant in terms of sample size.

Before completing the questionnaire, parents were given a short, written notice informing them where the data would be used. By completing the questionnaire, parents gave their consent for their answers to be used in the research. The sample was institutional in terms of coverage.

The study also included a key professional, a teacher of physiotherapy, who has been in the profession for 31 years. The physiotherapy teacher is a teacher who provides physiotherapy development to the children of the parents interviewed in the institution. The teacher interviewed answered

questions from an interview we had prepared. The questions of the interview and the questionnaire were consistent with each other, allowing a comparison of the opinions and experiences of both sides.

The age distribution of parents is illustrated in Figure 1. The data show that the average age of parents is between 35 and 40 years.

Education is shown in Figure 2.

Figure 1. Age distribution (n=50). Source: authors.

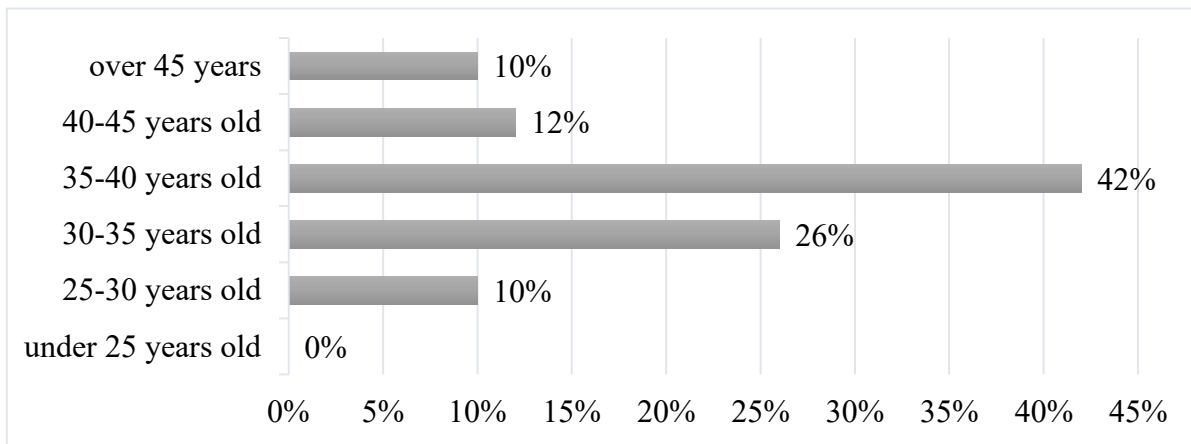
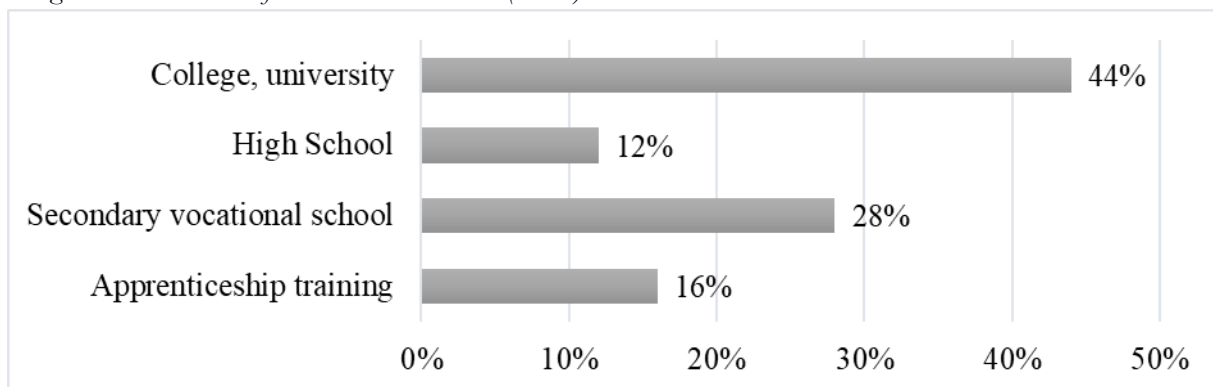


Figure 2. Distribution of educational attainment (n=50). Source: authors.



In our research, we also studied how many children the parents have and the age of the children. Of those surveyed, 16% had one child, 42% had two, 34% had three and 8% had four or more. The age of the respondents' children attending physiotherapy classes also varied for preschoolers, with 30% aged five, 50% aged six and 20% aged three.

Results

Our survey asked about the regularity with which the parent's child attends physiotherapy classes. 10% of respondents said that their child attends several times a week, 80% said that their child attends once a week, and 10% did not know how often their child receives PT (physiotherapy). We also asked the teacher a question about this during the interview. According to the physiotherapy teacher interviewed, the children attend one session per week, which she considers insufficient. She thinks that more than this or even every day would be necessary for effective development and progress. Comparing the results of the questionnaire and the interview, 20% of parents did not know how many times their child receives

the development he/she needs, while 8% of parents were surprised to find out that their child attended physiotherapy classes when the questionnaire was distributed.

We also asked how long children have been attending physiotherapy. Parents' responses are shown in Figure 3. During the interview, the physiotherapy teacher answered the same question by saying that the children of the parents interviewed had been attending PT for a minimum of two years and a maximum of four years. A comparison of the results shows that 54% of the parents do not know how long their child has been receiving the developmental support they need.

We also asked for any existing internal medicine or orthopaedic conditions, so parents were able to choose why their child was receiving developmental support from the options listed, the results of which are shown in Figure 4. The physiotherapy teacher interviewed was also supportive of the existence of abnormalities but complimented her response by stating that her practical experience suggests that there is not enough time frame to treat other, less common abnormalities and problems.

Figure 3. Time spent attending physical education classes, as reported by parents (n=50). Source: authors.

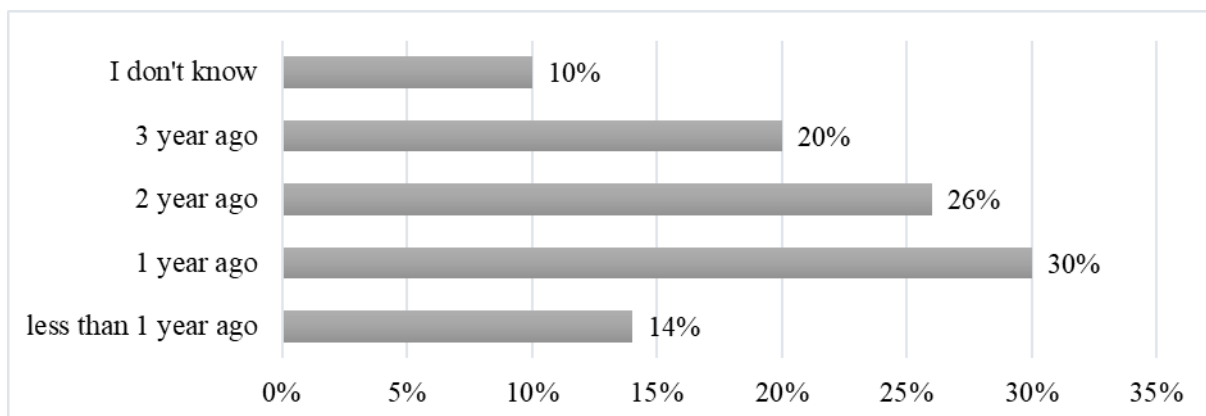
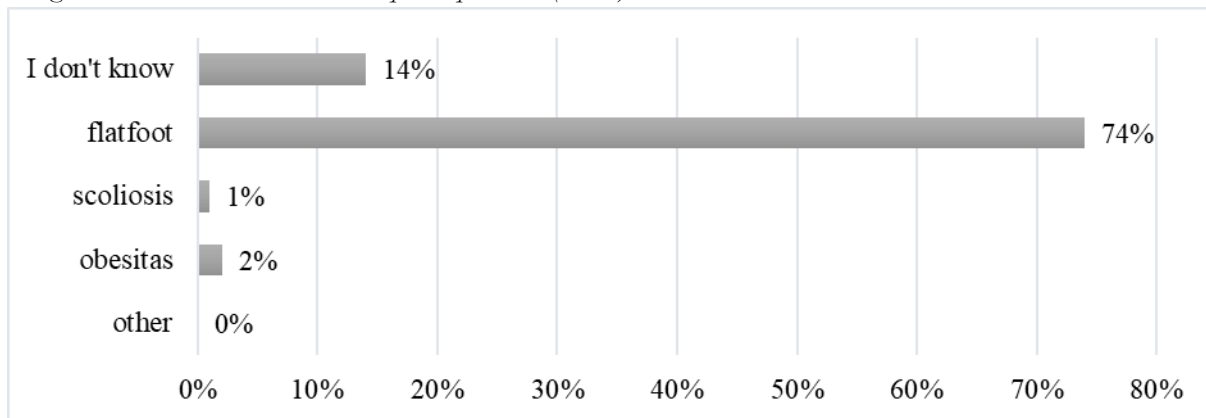


Figure 4. Internal medicine and orthopaedic problems (n=50). Source: authors.



60% of the parents concerned expected, and 40% did not expect, that their child would need to go to developmental therapy for various internal medicine or orthopaedic problems. Parents who thought it likely that their child would need to attend a PT class gave different reasons for their answers. 30% of the respondents thought that it was due to prematurity, 50% had noticed an orthopaedic abnormality in their child and 20% said that the family had been made aware of the problem by the nurse. According to the PT teacher, prematurity does indeed lead to an increase in the number of internal medicine or orthopaedic problems that may develop later in life, but this may be an indirect rather than a direct result of the disorder or lesion.

Our survey also looked at parents' positive and negative perceptions of physical education sessions. On the positive side, we can highlight the importance that parents attach to the existence of PT sessions. They believe that it is essential for the effective development of the growing body, and they also see many significant changes as a result of the development, such as improved posture, increased flexibility, reduced lesions, increased endurance, improved dexterity of movement and improved hand-foot coordination in their child.

Another important aspect, according to parents, is that these activities are free, take place during nursery school hours and are playful. The role of play in movement development and motivation has been confirmed by several studies in a sample of different age groups, but the use of play in the preschool pedagogical toolbox is very important for young children (Ramocsa, 2009, Mező, 2022; Mező és Mező, 2022; Simon, 2022 b, Wolf, 2022; Hidvégi and Müller 2015). According to the respondents' opinion, the learning of guided and new tasks during the sessions while the child is allowed to be active in a group is cardinal. Parents perceive that children are happy to attend development sessions, are motivated by positive reinforcement and rewards, and find the teacher's personality attractive. Several national studies (Óry et al., 2019, Simon and Kajtár, 2015, Müller et al., 2021; Fülöp and Pipó, 2023) have confirmed the effectiveness of the special needs teacher in education. Summarising the parents' comments, it can be concluded that there was more positive feedback than negative experiences. As a criterion for improvement, the parents interviewed believe that the teacher's contact is not sufficient, and at the same time, they do not consider the frequency of information transfer to be sufficient, so the

extent of their child's development is not known to them.

We also asked the parents whether, apart from the physiotherapy session, the children are taken elsewhere for some other development-oriented activity outside the kindergarten. 4% of respondents take their children to aquatic activities, 4% take their children to private physical education activities, but the remaining 92% do not take their children to any other developmental activities. From the responses received, it can be concluded that the majority of children only receive physiotherapy in the institutional setting. The main reasons given by parents for not attending other physiotherapy activities with their child are that they do not have time (40%), while 22% of respondents do not consider it important.

Conclusions

With the increase in the number of musculoskeletal or internal diseases in preschool children, it is very important to increase the amount of research on physiotherapy in preschool, reflecting the expectations of parents and the experiences of physiotherapy teachers.

The research has shown that a small proportion of parents do not know that their child is in physiotherapy classes or do not know the frequency of the sessions. Thus, it is a major task for the teacher providing physiotherapy to inform parents to improve their communication with parents and the information provided to them. Most parents are well-informed about their child's diagnosis and the importance of physiotherapy. Parents consider physiotherapy to be important not only for the treatment of deformities and illnesses but also for its experienced training agents.

The research also revealed that only 8% of parents of children in physiotherapy are willing to take their child to other therapeutic activity classes in addition to kindergarten. 92% of the children

attending physiotherapy only participate in kindergarten development. This is very important data, as it confirms the need to prepare kindergarten teachers for this area in their training and vocational training, and that physiotherapy in kindergartens and schools as a specialised further training course will perhaps become even more important in the future as the number of children in need increases. Another interesting finding is that the PT teacher says that 1 session per week is not enough to achieve significant results or to correct individual differences. This result also highlights the need to consider increasing the number of physiotherapy sessions in kindergartens in the future.

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References

- Andrásné Teleki J. (2000). A testnevelés szervezeti keretei között megoldható prevenció és korrekció közigazgatási szabályozása (pp 7-11). In Gaál Sné., Bencze Sné (szerk.). *Prevenção és korrekció a 3-10 éves korú gyermekek testnevelésében*. Tessedik Sámuel Főiskola, Kőrös Főiskolai Kara, Szarvas.
- Andrásné Teleki, J. (2017). A gyógytestnevelés feladata, jelenlegi helyzete az oktatás rendszerében *Testnevelés, Sport, Tudomány.*, 2. (1-2.). DOI [10.21846/TST.2017.1-2](https://doi.org/10.21846/TST.2017.1-2)
- Fülöp-Pipó M. (2023). A hajdúböszörményi Jó Pásztor Református Óvoda gyógytestnevelési fejlesztésben részesülő óvodáskorú gyermekek szüleinek és a velük foglalkozó gyógytestnevelő tanár véleményének illetve tapasztalatainak összehasonlítása. Szakdolgozat. Debreceni

- Egyetem, Gyermeknevelési és Gyógynevelési Kar.
- Gaál S. & Bencze S (2004). A testnevelés mozgásanyagának feldolgozása a 3-10 éves korosztály számára. Gaál Sándorné – Magánkiadás.
- Hidvégi, P. & Müller, A. (2015). *Gyógytestnevelés*. EKF Líceum Kiadó, Eger.
- Mező, K. (2018). A kora gyermekkori családi nevelés hatása az érzelmi intelligencia kialakulására és fejlődésére. In: Vargáné, Nagy Anikó (szerk.) *Családi nevelés 3*. Debrecen, Magyarország : Didakt. 43-59.
- Mező, K. (2022). Peculiarities in Teaching Students with Learning Disabilities and the Learning Support Mechanism of Educators during the COVID-19 Pandemic. *Fogyatékoság és Társadalom*. 16-24. DOI [10.31287/FT.en.2022.2.3](https://doi.org/10.31287/FT.en.2022.2.3)
- Mező, F. & Mező, K. (2022). Kreativitás a sport terén. *Tehetség 2022/ 1*. 5-8.
- Mező, K. (2022). Opportunities for collaboration between families and talent organizations for developing the creativity of sports talent. In: Gortka-Rákó, E.; Godawa, G. (szerk.) *Education in the Family/Family in Education II*. Krakow, Lengyelország: Pontifical University of John Paul II in Krakow, Institute of Pedagogy and Family Sciences, Faculty of Education for Children and Special Educational Needs of the University of Debrecen. p. 15
- Müller, A.; Laoues-Czimbalmos, N.; Szerdahelyi, Z.; Boda, E.; & Mező, K. (2021). Gyógynevelési mozgásfejlesztés szerepe és módszertani aspektusai. *Különleges Bánásmód* 7(3). 101-112. DOI [10.18458/KB.2021.3.101](https://doi.org/10.18458/KB.2021.3.101)
- Óry, E., Kajtár, G., & Simon, I. Á. (2019): Gyógynevelők motivációja a továbbképzések terén. *Képzés és Gyakorlat: Training and Practice* 17(3-4). 87-96.
- Pálfi, S., Rákó E., Vargáné Nagy A., Teszenyi E. (2020): Children's rights in Hungary in early childhood education and care In: Jane, Murray; Beth, Blue Swadener; Kylie, Smith (eds.) *The Routledge-International-Handbook-of-Young-Childrens-Rights*. London, Routledge of Taylor and Francis Group. 354-365.
- Pálfi, S. (2019). *Az óvodai játékok a gyermekközpontúság mutatója: az óvodai játékok jelene - és amilyen lehetne*. Budapest, Sprint Kft
- Ramocsa, G. (2005): A gerincferdülés: Scoliosis. In: Csentes, Krisztina (szerk.) *Kisgyermekek, nagy problémák: 4-9 éves gyermekeket nevelő pedagógusok kézikönyve*. Budapest, Raabe Kiadó.
- Ramocsa, G. (2009): A játék komplex értelmezése és alkalmazása a napjaink gyógynevelésében. *39. Mozgásbiológiai Konferencia : Program. Előadás-kivonatok*. 33-34.
- Simon, I. Á. & Kajtár, G. (2015): A gyógynevelő tanár nevelői, szakmai attitűdje. *Magyar Sporttudományi Szemle* 16: 2(62). 60.
- Simon, I. Á. (2022b): A játék szerepe a kisgyermek testnevelésében (mozgásos tevékenységében). In: Simon, I. (szerk.) *A játék kisgyermekkorban: Szemelvények a játék különböző területeiről*. Sopron, Magyarország: Soproni Egyetemi Kiadó. 130-184.
- Wolf, K. (2022): Mozgás és mozgásfejlesztés az óvodában. *Módszertani Közlemények*, 62(2), 96–102.
- Vargáné, Nagy A. (2021). A SARS COVID-19 okozta helyzet a hazai kora gyermekkori intézményekben. *Különleges Bánásmód* 7: 4. 101-107. DOI [10.18458/KB.2021.4.101](https://doi.org/10.18458/KB.2021.4.101)
- Vargáné, Nagy A; Pálfi, S. (szerk.) *Játékkal a világ körül = Play around the world*. Debrecen, Debreceni Egyetemi Kiadó.
- Višnjić-Jevtić, A., Varga Nagy, A., Ozturk, G., Şahin-Sak, İkbāl T., Paz-Albo, J., Toran, M. i Sánchez-Pérez, N. (2021). Policies and practices of early childhood education and care during the COVID-19 pandemic: Perspectives from five countries. *Journal of Childhood, Education & Society*, 2(2), 200–216. DOI [10.37291/2717638X.202122114](https://doi.org/10.37291/2717638X.202122114)

**PARENTAL FACTORS INFLUENCING SCHOOL ACHIEVEMENTS OF PUPILS
IN ILORIN METROPOLIS, KWARA STATE**

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Abstract

The purpose of this study was to evaluate how parental influences affected students' academic performance in the Kwara State capital of Ilorin. Researchers have expressed worry over students' low academic performance in school, and it is commonly acknowledged that for students to fully benefit from their education, their parents must give them their entire support. The research was a survey. All primary school teachers in the city of Ilorin made up the study's population, and a mixed method approach was used on a sample of 215 respondents (of whom 200 completed questionnaires and 15 participated in interviews). Simple random and selective sampling methods were used to choose the sample. The data was gathered via a survey called the "Parental Factors Influence School Achievements of Children Questionnaire" (PFISAPQ). The factors taken into account were gender, age, educational background, and number of years of teaching experience. Demographic information was expressed as a percentage, and the two null hypotheses were tested using the 2-way ANOVA statistical tool at the 0.05 level of significance. Mean and rank order analysis was used to analyze the research questions, and thematic analysis was then used to analyze the subsequent questions raised to support the main research questions. The results showed that, among other things, parental involvement, parental oversight, parental involvement in extracurricular activities, parental academic background, parental interest in education, and parent-child relationships are the primary factors positively affecting children's academic success. Also significant differences existed in the parental factors influencing school achievements of pupils in as

expressed by primary school teachers based on gender, age, educational qualification and years of teaching experience. It was recommended that parents should be encouraged to improve their involvement in children's academic activities by supporting them and being actively involved in encouraging pupils to learn and achieve maximally in school.

Keywords: Parenting, Parental Factors, Influence, School Achievements, Pupils.

Discipline: pedagogy

Absztrakt

A TANULÓK ISKOLAI TELJESÍTMÉNYÉT BEFOLYÁSOLÓ SZÜLŐI TÉNYEZŐK ILORIN METROPOLISBAN, KWARA ÁLLAMBAN

Háttér és cél: a tanulmány célja annak felmérése, hogy hogyan alakítja a szülői befolyás a diákok tanulmányi teljesítményét Kwara állam fővárosában, Ilorinban. Általánosan ismert tény, hogy ahhoz, hogy a tanulók teljes mértékben ki tudják használni az oktatás előnyeit a szüleiknek teljes mértékben támogatniuk kell őket. Ugyanakkor egyre több kutató fejezi ki aggodalmát a diákok alacsony iskolai teljesítménye miatt. *Minta:* Ilorin városának összes általános iskolai tanára alkotta a vizsgálat alapsokaságát (n=215). A minta kiválasztásához egyszerű véletlenszerű és szelektív mintavételi módszereket alkalmaztunk. *Módszer:* a kutatás során vegyes módszert alkalmaztunk (200 fő kérdőívet töltött ki, 15 fő interjúvett részt). Az adatokat "A gyermekek iskolai teljesítményét befolyásoló szülői tényezők kérdőív" (PFISAPQ) segítségével gyűjtöttük össze. A vizsgálat során figyelembe vett tényezők a következők voltak: nem, életkor, iskolai végzettség és a tanítási tapasztalatok éveinek száma. A demográfiai adatokat százalékban fejeztük ki, és a két nullhipotézist a kétirányú ANOVA statisztikai eszközzel teszteltük 0,05-ös szignifikanciaszinten. A kutatási kérdések elemzéséhez átlag- és rangsorelemzést alkalmaztunk, majd tematikus elemzéssel elemeztük a fő kutatási kérdéseket alátámasztó további kérdéseket. *Eredmények:* az eredmények azt mutatták, hogy többek között a szülői részvétel, a szülői felügyelet, a tanórán kívüli tevékenységekben való szülői részvétel, a szülői tanulmányi háttér, a szülői érdeklődés az oktatás iránt és a szülő-gyermek kapcsolat az elsődleges tényezők, amelyek pozitívan befolyásolják a gyermekek tanulmányi sikerességét. Jelentős különbségek mutatkoztak a tanulók iskolai teljesítményét befolyásoló szülői tényezőkben az általános iskolai tanárok nem, életkor, iskolai végzettség és a tanításban eltöltött évek alapján is. Az eredmények alapján megfogalmazható, hogy a szülőket ösztönözni kell arra, hogy jobban vegyenek részt a gyermekek tanulmányi tevékenységeiben, hogy a gyermekek jobban tanuljanak és maximálisan teljesítsenek az iskolában.

Kulcsszavak: Szülői magatartás, szülői tényezők, befolyásolás, iskolai eredmények, tanulók.

Diszciplína: neveléstudomány

Introduction

Education is the key to national development. Education starts from pre-primary and primary stage which is the bedrock upon which all other educational levels build. A society not properly educated is destined to fail because education is a

key factor for sustainable development. Primary education is an important level of education by which child develops the physical, motor, health, nutritional, intellectual, aesthetic, emotional and social ability and all these make primary education vital to child development (Obidike, 2012).

The objectives of primary education are to provide the child with basic knowledge and pre-skills for entrepreneurship, wealth generation and educational advancement; develop patriotic young people equipped them to contribute to social development and in the performance of their civic responsibilities; and provide opportunities for the child to develop manipulative skills that will enable the child function effectively in the society within the limits of child's capability (Federal Republic of Nigeria, 2013). If child education can provide these vital necessities which are fundamental in human life, it is therefore essential to pay serious attention to child's education at this level.

Primary school pupils are children from the age of 6 years to 11 years that receives elementary or primary education coming before secondary school and after preschool (Nkechi, Umemetu & Ogbonnaya, 2013). At this stage, the education they receive is compulsory in most part of the world (Nkechi, et al., 2013). Primary education in particular is the level of education that develops in the individual the capacity to read, write and calculates. Bruns, Mingat & Rakotamalala (2003) stated that it helps to eradicate illiteracy, which is one of the strongest predictors of poverty. UNESCO (2001) posited that this explains why primary education is the largest subsector of any education system and offers the unique opportunity to contribute to the transformation of societies through the education of the young ones and their academic or school achievement is of great important to pupils and educational stakeholders.

School or academic achievement means the ability of students to study and learn certain subjects in the school whether at the primary, secondary or tertiary institution levels with the aim of performing excellently in the course of study. It could be described as notable actions or achievements by certain students in their field of study or discipline. Academic performance is

measured through achievement test which is also known as paper and pencil test. Achievement test is a type of ability test designed to measure what an individual had learnt at the end of a course of instruction. In other words, it is meant to assess the level of academic attainment after a period of teaching and learning (Emeka, 2020).

School achievement of pupils or students really means three things: the ability to study and remember facts, being able to study effectively and see how facts fit together and form larger patterns of knowledge and being able to think for oneself in relation to facts and thirdly being able to communicate one's knowledge verbally (Chance, 2003). According to Sirin (2005), students' school achievement varies according to individual students' scores such as high, average or low academic performance. Students who place higher premium on education are inspired to enhance the development of their intellect and this fosters academic achievement.

Sampson (2004) emphasised that high and low performance is when a learner does well or poorly in a presented task. It may be said that obtaining scores in an examination best describes what performance is all about. This is a pointer to the fact that the issue of performance to learners cannot be under-estimated. Shittu (2004) stated that students' performance is a measure of how well they have mastered the learning task presented to them. It covers the way they handle controversial issues, pass relevant judgment and the level at which they pass examinations. However, Muola (2010) found that school achievement of pupils is greatly influenced by parental factors.

Parents, who have been considered as one of the stakeholders of the school community, play tremendous roles in children's education. Among the many tenets of the educational reform efforts is the idea that parental involvement is an essential element in children's academic achievement and social adjustment (Jeynes, 2002). Development of

emotional and behavioral self-regulation of a child is highly influenced by parental factors. The capacity to control emotional responses depends on the level of response and involvement of parents in a child's life or parents related factors (Bornstein, 2002; Hay & Ashman, 2003).

Parents related factors are the social and economic experiences and realities that help mold one's personality, attitudes and lifestyle. Among parents' factors are education, income, occupation and guidance and so on. When analyzing the parent factors, the household income, parent's education level, parental guidance and occupation are examined (Michael & Karthik, 2004). Studies have repeatedly found that parents affect student outcomes (Muola, 2010; Koki, Lee, & Educational Resources Information Center {U.S.}, 2008; Goye, 2007; Jeynes 2005). Pupils' education achievements are greatly influenced by parental factors such as parental income, parental education level, parental occupation and parental guidance in the community such as contacts within the community, group associations, and the community's academic performance of the family among others (Muola, 2010; Koki, et al., 2008; Goye, 2007; Jeynes 2005).

Kentli (2012) also found that parental factors such as household composition, socioeconomic status, and parents' level of education were stronger predictors of students' educational attainment than direct school-related factors. Durand (2010) pointed out that students' academic success was influenced by the interrelationships among parental educational and occupational status. Also, an intellectually stimulating home setting in which parents provide opportunities for children and encourage them to become involved in working discipline; and parent-child interactions that support the pursuit of excellence in academic and cultural experiences enable children to be more successful (Kentli, 2012).

It has been observed by many teachers in Ilorin metropolis, that some primary school pupils have

problems with identifying objects or numbers (figures), reading, writing and manipulation of objects while some children can manipulate toys and other play materials, read and write very well compared to some other children. And also major edge that private primary school pupils have over public primary school pupils is the impact of parental engagement in the activities of private school. Lack of parental monitoring, support and supervision have affected the students' achievement in public primary school in no small measure. Their morale is dampled, motivation for learning is in shamble, and parents support to complement teacher's efforts are nothing to write home about. This has affected public school students' image, performance and self-esteem as well as quality of education they received.

Parental involvement on pupils' school achievement depend on the nature of parental factors, when pupils are having trouble with school, parents are more likely to influence their children school performance positively. Level of parental factors such as household income, parent's education level, parental guidance and occupation could have influenced school achievement of primary school pupils negatively or positively is expected to provide a good and conducive climate for social, intellectual and emotional development of child, further it provides love, security, guidance and care that contributes to good or poor academic performance (Michael & Karthik, 2004). Hence, this present study intends to examine the parental factors influencing school achievements of pupils in Ilorin South Local Government Area of Kwara State.

Research Questions

The following research question is raised to guide the conduct of the study: What are the parental factors influencing school achievements of pupils

as expressed by primary school teachers Ilorin metropolis, Kwara State?

Research Hypotheses

The following hypotheses were formulated and tested in the study.

1. There is no significant difference in the parental factors influencing school achievements of pupils as expressed by primary school teachers in Ilorin metropolis, Kwara State based on gender and age.
2. There is no significant difference in the parental factors influencing school achievements of pupils as expressed by primary school teachers in Ilorin metropolis, Kwara State based on educational qualification and years of teaching experience.

Purpose of the Study

The main purpose of the study is to examine the parental factors influencing school achievements of pupils in Ilorin metropolis, Kwara State. The study also seeks to examine the influence of moderating variables of gender, age, educational qualification years of teaching experience of the respondents' responses on the parental factors influencing school achievements of pupils.

Methodology

The study employed a mixed method approach of explanatory design comprising of quantitative and qualitative analyses of data. The mix method approach is considered appropriate because it allows the researcher to follow up and further explain the result of the quantitative findings (Bordens & Abbott, 2002). For quantitative data, a descriptive survey was adopted while thematic analysis was employed for qualitative data.

The population for this study comprised all primary school teachers in Ilorin metropolis, Kwara State while the targeted population consisted of selected primary school teachers in

Ilorin metropolis, Kwara State. The researcher chooses primary school teachers because they know much about pupils' school achievement than other educational stakeholders. Two hundred and fifteen (215) primary school teachers formed the sample for this study. Eleven (11) primary schools were randomly selected from Ilorin metropolis, Kwara State using dip-hat sampling method. The dip-hat sampling method is a method where by the researcher writes the names of the primary schools in the local government area on different sheets of papers, puts them in a bag, shakes them and then dip his/her hand into the bag to pick a sample. This method was used to select 11 primary schools for the study. Thus, 10 respondents were randomly selected from each of the schools selected using random sampling techniques. The participants were selected using stratified sampling on the basis of gender, age, educational qualification and years of teaching experience. Also 5 parents were purposively selected in addition to 210 respondents. Therefore, a total number of two hundred and fifteen (215) respondents were used for this study.

The instrument adopted for this study was a self-designed questionnaire titled "Use of Mobile Technology for Accessing Counselling Services Questionnaire" (UMTACSQ) was used to collect data. The instrument was validated by 4 Lecturers in the Department of Counsellor Education, University of Ilorin. The instrument was subjected to test re-test reliability and the reliability coefficient of 0.85 was obtained.

For the purpose of the study, a researcher-developed questionnaire entitled "Parental Factors Influencing School Achievements of Pupils Questionnaire (PFISAPQ)" was used to collect data for this study. The questionnaire consisted three sections (that is Section A, B & C). Section A, focused on the demographic data of respondents, Section B consisted 10 items which focus on the parent factors influencing school achievement of

pupils while section C contained interview questions relating to parent factors influencing school achievement of pupils such as what parental related factors can influence pupils' academic achievement; based on your experience, do you think parents' income influences pupils' performance in school; do you think the parents occupation affect their pupils' performance in school based on your experience; and in your opinion, in what way do you think parents' level of education could affect pupils' academic performance.

The format of each section (A & B) of the questionnaire forms holds the weight of scoring. Section 'A' was analysed using the frequency and simple percentages for the demographic data. The four point Likert type scale was used in scoring the instrument. However, the procedure for scoring the instrument is as follows:

- Strongly Agree (SA)=4 Points
- Agree (A)=3 Points
- Disagree (D)=2 Points
- Strongly Disagree (SD)=1 Point.

In sections B of the instrument, the mean cut-off point is 2.5 (i.e. $4+3+2+1/4$). Therefore, any item that ranked 2.5 and above was considered as positive parental factors while below 2.5 was considered as negative parental factors influencing school achievement of pupils.

Thematic analysis was used for analyzing qualitative data that is section C. Thematic analysis helped in establishing meaningful information to support the quantitative data analyzed. The responses were analysed and arranged using thematic analysis with each of the responses coded and formed to themes to allow for ease of analysis. Using the inductive approach of code development, which enables codes and themes to emerge from the data, the researcher read through each transcript or audio severally to grasp more detail and gain a better understanding of how the data relates to the research questions.

Results

Research Question 1: What are the parental factors influencing school achievements of pupils as expressed by primary school teachers Ilorin metropolis, Kwara State?

Table 1. Mean and Rank Order Analysis on the Respondents' Expression on the Parental Factors Influencing School Achievement of Pupils. Source: authors.

Item No	As far as I am concerned, the following factors positively contributed to pupils' school achievement:	Mean	Rank
1	Parent's academic background	3.78	1 st
3	Parent's interest in education	3.57	2 nd
7	Parent-child relationship	3.52	3 rd
8	Parental monitoring	3.44	4 th
9	Parental involvement	3.49	5 th
6	Parent's ability to use technology	3.37	6 th
10	Parental attitude to discipline	3.37	7 th
4	Parent's academic abilities	3.35	8 th
5	Parent's occupation	3.31	9 th
2	Parent's socio economic status	3.12	10 th

Table 1 presents the mean and rank order on the respondents' expression on the parental factors influencing school achievements of pupils. The table indicates that items 1, 3 and 7 which state that the parent's academic background; parent's interest in education; and parent-child relationship are the main factors positively contributed to pupils' school achievement. The items ranked 1st, 2nd and 3rd respectively with mean scores of 3.78, 3.57 and 3.52 respectively. Also items 4, 5 and 2 which state that parent's academic abilities; parent's occupation; parent's socio economic status are the least parental factors positively contributed to pupils' school achievement. The items ranked 8th, 9th and 10th with the mean scores of 3.35, 3.31 and 3.12 respectively. Since all the ten items have mean score that is above 2.50, then it can be said that respondents attested positively that parental factors have influence on pupils' school achievement.

The researcher also asked 10 primary school teachers and 5 parents Ilorin metropolis some questions during face to face interviews. The questions and their responses were as follows:

1. How can parental level of education influence pupils' school achievement?

The teachers' reports revealed the following:

Themes: know when to give pupil the material need, able to guide and direct the pupils well enough, able to modify pupils' learning behaviour, to serve as a mentor to pupils, able to understand children better, can improve the child intellectual performance, impact more knowledge.

Statements:

A female teachers of 28 years old with NCE and been teaching for 5 years stated that: „Parental level of education can positively affect the pupils school achievement because they know the

significant of being educated and that make them to give their pupils all they need e.g. payment of school fees, stationeries, adequate feeding etc.”

A male respondent of 33 years old with NCE who has been teaching for 11 years reported that: „Parental level of education influence the pupils academic performance especially those with higher level of education, in the sense that they can guide and direct the pupils well enough compared with parent with low level of education.”

Another male teacher of 42 years old with first degree and been practicing teaching for 14 years simply stressed that: „Involvement of educated parents has greater impact on elementary school students than secondary school students.”

A 41 years old female teacher who has first degree and been teaching for 12 years stated that: „Parent education affect children learning behaviour and academic achievement positively.”

A 42 years old female teacher who has first degree and has been teaching for 11 years stated that: „It depends on parental level of education to influence their children school achievement, those with school leaving certificate and senior secondary school certificate might not significantly has influence on pupils' school achievement compare to those with first degree and postgraduate.”

A 39 years old female teacher who has master degree and has been teaching for 11 years reported that: „It will have great impact because parents with higher education level and exposure understand their children better and they tend to teach them properly and child learn best from parents.”

Male teacher of 26 years old with NCE and teaching experience of 4 years stated that: „Parent level of education can influence the child

academic achievement. It improves the child intellectual performance positively."

A female parent of 33 years of age with three children stated that: *„Parental level of education influence the child academic performance, if the parents are well educated it will also influence the child positively."*

Male parent with 2 children stressed that: *„Parental level of education can improve pupils academic achievem"*

Female parent with 2 children asserted that: *„Well educated parent make the best decision for their children due to their level of education"*.

Male parent of 31 years old with 2 children asserted that: *„Parental level of education can influence school achievement through provision of academic related materials."*

2. Based on your experience, does parental monitoring/supervising promote pupils' academic achievement? Please, explain. The following extracts from the interviews conducted at different schools illustrate the respondents' perceptions based on their experience on the above question. Therefore, the themes and response were as follows:

Themes: pupils' attitude in class improve, engage in good study habits at home, doing assignment, correct pupils habit, promote pupils intellectual capabilities or cognitive development, keeps pupils' in check, groom children properly, allows child to put more efforts.

Statements:

A female teachers of 28 years old with NCE and been teaching for 5 years stated that: *„Yes, parental monitoring and supervising go along way of*

promoting pupils academic achievement because parents will see them through reading at home, doing assignment etc"

A male respondent of 33 years old with NCE who has been teaching for 11 years reported that: *„Yes because anytime pupils is doing something out of time, due to parents monitoring they will be corrected of such bad habits."*

Another male teacher of 42 years old with first degree and been practicing teaching for 14 years simply stressed that: *„Parent monitoring through communicating with teacher helps students feel more motivated in their classes, their self esteem and attitudes in class improves."*

A 41 years old female teacher who has first degree and been teaching for 12 years stated that: *„Parental monitoring promote pupils intellectual capabilities or cognitive development."*

A 42 years old female teacher who has first degree and has been teaching for 11 years stated that: *„Yes, parent monitoring keeps children in check. A kid first teacher is always his/her parents. such kid's cademic activities will be affected by how constant the parents monitor his/her work.s."*

A 39 years old female teacher who has master degree and has been teaching for 11 years reported that: *„Yes, it is an essential as eating. Proper monitoring groom children properly and make them excel in their academic activities."*

Male respondent of 26 years old with NCE and teaching experience of 4 years stated that: *„Yes, it promotes the pupils academic achievement in the sense that it makes the child to put more efforts in his/her academic performance. It also makes the child to have focus on his/her academic."*

Another male respondent of 37 years old with first degree and teaching experience of 8 years stated that: *„Yes, parental monitoring /supervising enhance the pupils academic performance, the parents should guide them, support them and by assisting them in their assignment.”*

A female parent of 33 years of age with three children stated that: *„Yes, it promotes the pupils achievement and help positively in learning.”*

Male parent with 2 children stressed that: *„Yes, parental monitoring and supervision also improves the child’s academic achievement. it makes the child to work hard in his/her studies and makes the child to be knowledgeable if the child undergo some monitoring and supervision by parent.”*

Female parent with 2 children asserted that: *„Yes, parental monitoring/supervising promotes the level of child education due to monitoring/supervising and prayerful for the child.”*

Male parent of 31 years old with 2 children asserted that: *„Yes, constant but proper monitoring is essential to the pupils’ academic performance”.*

A female parent of 35 years of age with 4 children stated that: *„Parental monitoring promote pupils academic for both the pupils and the teacher because the teacher will be putting more effort in other pupils who are academically poor.”*

3. Do you think that the parental involvement/support can influence pupils’ performance in school based on your experience? Please, explain.

The following extracts from the interviews conducted at different schools illustrate the respondents’ perceptions based on their experience on the above question.

Therefore, the themes and response were as follows:

Themes: providing school materials for pupil, guide the pupil moral intelligence, influence pupils positive attitude towards education, build child confidence level.

Statements:

A female teacher of 28 years old with NCE and been teaching for 5 years stated that: *„Yes parental involvement and support can also influence pupils performance. If parents provide needed materials that the school is lacking, such as instructional materials, textbooks and stationeries etc.”*

A male respondent of 33 years old with NCE who has been teaching for 11 years reported that: *„Yes parental involvement can always guide the pupil moral intelligence.”*

Another male teacher of 42 years old with first degree and been practicing teaching for 14 years simply stressed that: *„Yes and teachers who focus on parent engagement often see a profound change in their class room.”*

A 41 years old female teacher who has first degree and been teaching for 12 years stated that: *„Parent personal involvement has more impact on children academic outcomes and it influence pupils positive attitude towards education”*

A 42 years old female teacher who has first degree and has been teaching for 11 years stated that: *„Any child would fail if the parent does not support such child. A parent support can help build child confidence level.”*

A 39 years old female teacher who has master degree and has been teaching for 11 years reported that: *„Yes, parental involvement/support*

can influence pupils' performance in school by supporting the child in doing his/her take home work and have more time in engaging him/her in a summer lessons."

Male respondent of 26 years old with NCE and teaching experience of 4 years stated that: *„Yes, parental involvement can influence the pupils' academic performance if the child does not have parental support, it can affect the child by not improving well in his/her academic performance."*

A female parent of 33 years of age with three children stated that: *„Yes, it supports the pupils' performance in school learning. It also gives a child to be up and doing in his/her education."*

Male parent with 2 children stressed that: *„Yes parental involvement and support influence the child academic performance if the child is been supported positively e.g. provision of some academic materials."*

Female parent with 2 children asserted that: *„Yes, because the parent will guide the pupils based on experience he/she has."*

Male parent of 31 years old with 2 children asserted that: *„Yes, the essential tools for any development of the support from the right channels. A kid performance is greatly affected/ influences by parental supports and involvement."*

A female parent of 35 years of age with 4 children stated that: *„Yes, parental involvement can influence pupils' performance especially in their weak area of subject."*

4. In your opinion, in what ways do you think parent-child relationship improved or reduced pupils' academic performance? The following extracts from the interviews conducted at different schools illustrate the respondents' perceptions based on

their experience on the above question. Therefore, the themes and response were as follows:

Themes: giving the pupils the best guidance, improve interaction, improves child academic.

Statements:

A female teacher of 28 years old with NCE and been teaching for 5 years stated that: *„Parent-child relationship can improve pupils academic performance by giving the pupils the best guidance and not over loading the pupils with what they cannot absorb and reducing stress help the pupils in the academic performance."*

A male respondent of 33 years old with NCE who has been teaching for 11 years reported that: *„It allows child to succeed and assist their psychological development."*

A 41 years old female teacher who has first degree and been teaching for 12 years stated that: *„When parent-child relationship is closed the child improved in their academic with little discipline but sometimes some child not living with their parent and the person treat the child badly so pupils academic performance will reduce totally."*

A 42 years old female teacher who has first degree and has been teaching for 11 years stated that: *„Parent-child relationship is very important in the life of every child, it makes the child to interact well with their parents and also makes the child to have cordial relationship with the parents in terms of expression."*

Male respondent of 26 years old with NCE and teaching experience of 4 years stated that: *„Parent-child relationship improves child academic if the parents are friendly and tolerant, it will improve the child academically and the child will have a very smooth relationship with the parents and he/she will be free to express his/herself."*

A female parent of 33 years of age with three children stated that: „*The parent and child relationship improved pupils' education. It can also reduce because most pupils will not be serious if the parents are advising them*”.

Male parent of 31 years old with 2 children asserted that: „*Parent-child relationship makes the child to do well in his/her academic or it also reduce the academic performance of the child if not given freedom.*”

A female parent of 35 years of age with 4 children stated that: „*It can improve the level of education of pupils by encouraging and offering words of advice. It can also reduce the pupils' academic performance due to misguiding the child.*”

Hypotheses Testing

Two null hypotheses were formulated and tested for this study. The hypotheses were tested using 2-

way Analysis of Variance statistical method at 0.05 level of significance.

Hypothesis 1.:There is no significant difference in the parental factors influencing school achievements of pupils in as expressed by primary school teachers in Ilorin metropolis, Kwara State based on gender and age.

Table 2 shows the result of the two-way Analysis of Variance based on gender and age. In the case of gender, the calculated F-value is 4.418, while the critical F-value is 3.84 with 1 and 194 the degrees of freedom. Since the calculated F-value is greater than the critical F-value, the hypothesis is thus not accepted. It could be inferred that there is significant difference in the parental factors influencing school achievements of pupils in as expressed by primary school teachers in Ilorin metropolis, Kwara State based on gender.

Table 2. 2-way Analysis of Variance showing differences in the Respondents' Expression on the Parental Factors Influencing School Achievement of Pupils based on Gender and Age. Source: Authors.

Source	Sum of Squares	df	Mean Squares	Cal. F-Value	Crit. F-Value	Sig.
Corrected mod.	1464.627 ^a	5	292.925	34.412		.000
Intercept	206151.847	1	206151.847	24218.3034.4		.000
Gender	37.610	2	37.610	18	3.84	.0370
Age	1105.627	194	552.813	5.784	3.00	00
Error	1651.373	200	8.512			
Total	238414.000	199				
Corrected T.	3116.000					

* p < .05

In the same vein, the calculated F-value of age is 5.784, while the critical F-value is 3.00 with 2 and 194 the degrees of freedom. Since the calculated F-value is greater than the critical F-value, thus, the hypothesis is rejected. Therefore, there is a significant difference in the parental factors influencing school achievements of pupils in as expressed by primary school teachers in Ilorin metropolis, Kwara State based on age. In order to ascertain where the significant difference lies based on age, Scheffe Post-Hoc was carried out and the output is shown on Table 3.

Table 3. Scheffe post-hoc where the significant difference lies based on Age. Source: Authors.

Age group	N	Sub set for Alpha = 0.05		
		1	2	3
31-40 years	51	31.65		
18-30 years	93		33.38	
41 years ≥	56			38.25

Table 3 shows that respondents who were 31-40 years of age had the mean score of 31.65 (in subset 1), 18-30 years had the mean score of 33.38 (in

subset 2) while 41 years and above had the mean score of 38.25 (in subset 3). This implies that the mean score of respondents who were 41 years of age and above is greater than the mean scores of other age groups thus contributed to the significant difference.

Hypothesis 2: There is no significant difference in the parental factors influencing school achievements of pupils in as expressed by primary school teachers in Ilorin metropolis, Kwara State based on educational qualification and years of teaching experience

Table 4 shows the result of the two-way Analysis of Variance based on educational qualification and years of teaching experience. Based on educational qualification, the calculated F-value is 3.291, while the critical F-value is 3.00 with 2 and 194 the degrees of freedom. Since the calculated F-value is greater than the critical F-value, the hypothesis is thus rejected. This implies that there is significant difference in the parental factors influencing school achievements of pupils in as expressed by primary school teachers in Ilorin metropolis, Kwara State based on educational qualification.

Table 4: 2-way Analysis of Variance showing differences in the Respondents' Expression on the Parental Factors Influencing School Achievement of Pupils based on Educational Qualification and Years of Teaching Experience. Source: Authors.

Source	Sum of Squares	df	Mean Squares	Cal. F-Value	Crit. F-Value	Sig.
Corrected model.	538.525 ^a	5	107.705	8.107		.000
Intercept	61160.552	2	61160.552	4603.400		.000
Edu. Qualification	87.450	2	43.725	3.291	3.00	.039
Teaching Exp.	87.931	194	43.966	13.480	3.00	.039
Error	2577.475	200	13.286			
Total	238414.000	199				
Corrected T.	3116.000					

* p < .05

Likewise, the calculated F-value of years of teaching experience is 13.480, while the critical F-value is 3.00 with 2 and 194 the degrees of freedom. Since the calculated F-value is greater than the critical F-value, thus, the hypothesis is rejected. Therefore, there is a significant difference in the parental factors influencing school achievements of pupils in as expressed by primary school teachers in Ilorin metropolis, Kwara State based on years of teaching experience. In order to ascertain where the significant difference lies, Scheffe Post-Hoc was carried out and the output is shown on Tables 5 and 6.

Table 5: Scheffe post-hoc where the significant difference lies based on Education Qualification. Source: Authors.

Qualification	N	Sub set for Alpha = 0.05	
		1	2
Postgraduate	19	32.26	
NCE	111	33.59	
First Degree	70		35.97
Sig.		.270	1.000

Table 5 indicates that respondents who had Postgraduate and NCE (in subset 1) with the mean scores of 32.26 and 33.59 respectively while respondents who had first degree are in the sub-set 2 with the mean scores of 35.57 respectively. This implies that respondents who had first degree contributed to the significant different with mean score compared with other groups.

Table 6. Scheffe post-hoc where the significant difference lies based Years of Teaching Experience. Source: Authors.

Year	N	Sub set for Alpha = 0.05	
		1	2
1-5 years	99	33.52	
6-10 years	7	34.00	
11 years ≥	94		35.15
Sig.		.070	.794

Table 6 indicates that respondents who had 1-5 years and 6-10 years of teaching experience are in the same sub-set 1 with the mean scores of 33.52 and 34.00 respectively while respondents who had 11 year and above of teaching experience with the mean score of 35.15 is in the subset 2. This implies that respondents who had 11 years and above teaching experience contributed to the significant different.

Discussion of the Findings

The study revealed that revealed that parent's academic background; parent's interest in education; and parent-child relationship are the main factors positively contributed to pupils' school achievement. This could be as a result of the fact that parents provide higher levels of psychological support for their children through environments that encourage the development of skills necessary for success at school. The finding supports the study of that Egunsola (2014) revealed that the quality of parents educational background goes a long way to predict the quality of students' academic outcome and regularity of the satisfaction and provision of a child's functional survival and academic needs. The finding also agrees with the study of Adeyemi and Adeyemi (2014) stressed the importance of parents' interest and students' interest in education as predictors of pupils' academic achievement. The finding also supports the submission of Kentli (2012) who asserted parent-child interactions that support the pursuit of excellence in academic and cultural experiences enable children to be more successful.

The findings from the interview shown that parental level of education can influence pupils' school achievement when they know when to give pupil the material needed, able to guide and direct the pupils well enough, able to modify pupils' learning behaviour, to serve as a mentor to pupils, able to understand children better, can improve the

child intellectual performance, impact more knowledge to children. The finding is in line with the study of Durand (2010) who was of the view that educated mothers provide their children with more materials and activities that promote high educational outcomes and also an intellectually stimulating home setting in which parents provide opportunities for children and encourage them to become involved in working discipline.

The finding of the study revealed that parental monitoring/supervising: improve pupils' attitude in class improve, enable pupils to engage in good study habits, do assignment, correct pupils habit, promote pupils intellectual capabilities or cognitive development, keeps pupils' in check, groom children properly, allows child to put more efforts. The finding is in line with the submission of Ezenwafor and Amobi (2016) who stressed that parental monitoring or supervision enable students to adopt effective study habits to improve their academic performance and prepare them well for the future.

The result of the findings from interviewed teachers and parents further revealed that parental involvement/support can influence pupils' performance in school by providing school materials for pupil, guide the pupil moral intelligence/positive attitude towards education, build child confidence level. The finding also relates to the submission of Jeynes (2005) who stated that parents' involvement in their children's academic activities by supporting them financially and morally enhance students' academic performance.

The finding of the study revealed that parent-child relationship can improved pupils' academic performance by giving the pupils the best guidance, improving interaction to make children free to them, make children to express themselves in class. The finding is in line with the submission of Momen and Amari (2008) who asserted that parent-child communication pattern could have a tremendous influence on the life of their children ranging from the perception the children have

about themselves (self-esteem) by telling them about their mistakes in school which in turn improve students' academic achievement.

Hypothesis one revealed that there was significant difference in the parental factors influencing school achievements of pupils as expressed by primary school teachers in Ilorin metropolis, Kwara State based on gender and age.

This implies that based on gender, male and female respondents were different in their perception on the influence of parental factors on pupils' school achievement. The interview conducted among respondents also showed respondents of both genders had different perception. This finding negates the study of Ezenwafor and Amobi (2016) who found that and female respondents significantly differed in their mean ratings on the extent student-related factors affect academic performance of secondary school students in business subjects in the area of the study. This could attributed to gender bias when it comes to parents sending children to schools where some parent prefer male child to female child thus the perception of the respondents could be differed based on their experience on parental factors.

Significant difference in the parental factors influencing school achievements of pupils as expressed by primary school teachers in Ilorin metropolis, Kwara State based on age. This implies significant age difference was found among respondents perception. The result of Scheffe post-hoc revealed that respondents who were 41 years of age and above contributed to the significant difference. Their contribution to the significant different could be as a result of their high level of maturity.

Respondents of different age groups were interviewed and they were also different in their perception on the parental factors influence pupils' school achievement. The finding of the study supports the study of Jeynes (2005) who also found significant difference in the effect of parental

involvement on the academic achievement among in-school adolescents of difference age groups.

Hypothesis two revealed that was significant difference in the parental factors influencing school achievements of pupils as expressed by primary school teachers in Ilorin metropolis, Kwara State based on educational qualification and years of teaching experience. The post-hoc result showed that respondents who had first degree contributed to the significant different with mean score compared with other groups. Based on respondents educational qualification, the finding implies that the perceptions of the respondents were different based on the parental factors influencing school achievement of pupils. Interviewed with respondents of different level of educational qualification showed that, the respondents did not share the same view on the parental factors influencing pupils' academic achievement. This could be as a result of the different knowledge they acquired at different level of their educational attainment on the parental influence on students' education. The finding of the study is in line with the submission of Ntitika (2014) who found significant difference in the parental characteristics influencing students' academic performance as perceived by teachers of difference educational qualification.

Significant difference in the parental factors influencing school achievements of pupils as expressed by primary school teachers in Ilorin metropolis, Kwara State based on years of teaching experience. This implies that no difference was found based on respondents years of teaching experience on the parental factors influencing school achievements of pupils. The result of Scheffe post-hoc revealed that respondents who had 11 years and above teaching experience contributed to the significant different. The same view was also found among interviewees with different type of occupations. This may be as a result of the different experiences they had year in

year out on the influence of parental factors on pupils' academic achievement. The finding of the study is in line with the submission of Kentli (2012) who found significant in the perception of teachers based on years of working experience on the parental influence on academic success.

Conclusion

This research work examined the parental factors influencing school achievements of pupils in Ilorin metropolis, Kwara State. The study that parent's academic background; parent's interest in education; parent-child relationship; parental involvement; and parental monitoring are the main factors positively contributed to pupils' school achievement among others. Hence, Professional counselors can sensitize parents who are not educated to enrol in adults class since the study has found that parental educational background and parents' interest in education could positively influenced school achievement of pupils. Counsellors can identify pupils whose parents are not involving, monitoring pupils' education to orientate them on the important of parental involvement and parental monitoring on pupils school achievement. Marital Counsellors can also sensitize parents on how parent-child relationship could improve pupils' school achievement.

Recommendations

Based on the findings of this study, it is recommended that:

1. School authorities should encourage parents through P. T. A. to improve their involvement in their children's academic activities by supporting them financially and morally to enhance their academic performance.
2. Parents should be actively involved in encouraging students to learn and also in supervising students' academic work at home as well as giving them advice.

3. There is need for establishment of adult education in various community in order to improve parents level of literacy which could negatively affect children school achievement.
4. There is need for School Counsellors to identify pupils whose parents are not involving, monitoring pupils' education to orientate them on the important of parental involvement and parental monitoring on pupils school achievement.

References

- Adeyemi, A. M. & Adeyemi, S. B. (2014). Personal factors as predictors of students' academic achievement in colleges of education in South Western Nigeria. *Academic Journal*, 9(4), 97-109. DOI [10.5897/ERR2014.1708](https://doi.org/10.5897/ERR2014.1708)
- Bordens, K. S. & Abbott, B. B. (2002). *Researcher design and methods: A process approach* (5thed.). New York: McGrawHill.
- Bornstein, M. H. (Ed.). (2002). *Handbook of parenting: Practical issues in parenting* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Bruns, B., Mingat, A., & Rakotomalala, R. (2003). *Achieving universal primary education by 2015: A chance for every child*. Washington, D.C: The World Bank
- Chance, P. (2003). *Learning and behavior* (5th ed.). Australia: Wadsworth Publishing.
- Durand, T. M. (2010). Latina mothers' cultural beliefs about their children, parental roles, and education: implications for effective and empowering home-school partnerships. *Urban Review: Issues and Ideas in Public Education*, 43(2), 255-278. DOI [10.1007/s11256-010-0167-5](https://doi.org/10.1007/s11256-010-0167-5)
- Egunsola, A. O. E. (2014). Influence of home environment on academic performance of secondary school students in agricultural science in Adamawa State Nigeria *Journal of Research & Method In Education (Iosr- Jrme) E-Issn: 2320-7388,P- Issn: 2320-737x* 4 (4). 46-53. DOI [10.9790/7388-04424653](https://doi.org/10.9790/7388-04424653)
- Emeka, J. (2020). *Family environment and academic achievement of some secondary school student*. Calabar: Umeh Publishing.
- Ezenwafor, J. I. & Amobi, S. C. (2016). Extent parental and student-related factors affect students' academic performance in business subjects in secondary schools in Awka education zone. *European Journal of Education Studies*, 2(4), 44-54. DOI [10.5281/zenodo.62062](https://doi.org/10.5281/zenodo.62062)
- Federal Republic of Nigeria. (2013). *National Policy on Education* (6th ed.). Lagos, Nigeria: Nigerian Educationa Research and Development Council (NERDC).
- Goye, H. (2007). *Parental participation in pupils' homework in Kenya: In search of an inclusive policy*. Nairobi: Act press.
- Hay, I., & Ashman, A. F. (2003). The development of adolescents' emotional stability and general self-concept: the interplay of parents, peers, and gender. *International Journal of Disability, Development, and Education*, 50, 1, 78-91. DOI [10.1080/1034912032000053359](https://doi.org/10.1080/1034912032000053359)
- Jeynes, W. H. (2002). Examining the effects of parental absence on the academic achievement of adolescents: The challenge of controlling for family income. *Journal of Family and Economic Issues*, 23(2), 56-65. DOI [10.1023/A:1015790701554](https://doi.org/10.1023/A:1015790701554)
- Jeynes, W. H. (2005). Effect of parental involvement and family structure on the academic achievement of adolescents: *Marriage and Family Review*. 37(3):99-116. DOI [10.1300/J002v37n03_06](https://doi.org/10.1300/J002v37n03_06)
- Kentli, F. D. (2012). Parental influence on academic success: A case study on a private high school in Turkey. *International Journal of the Humanities*, 6(5), pp. 65-70.
- Koki, S., Lee, H., & Educational Resources Information Center (U.S.). (2008). *Parental involvement in education: What works in the Pacific*.

- Honolulu: Pacific Resources for Education and Learning.
- Michael K., & Karthik, M. (2004) Measuring and Understanding Teacher Absence in Indonesia.” *unpublished draft*. World Bank, Washington DC.
- Michael K., & Karthik, M. (2004) Measuring and Understanding Teacher Absence in Indonesia.” *unpublished draft*. World Bank, Washington DC.
- Momen F. & Amiri S.H (2008). The relationship between parent’s child rearing styles and incidence of anorexia nervosa among 14-17 year old female adolescents in (Isfahan) Persian. *Journal of family research*, 12, 775-89.
- Muola, H. (2010). A study of the relationship between academic achievement motivation and home environment among standard eight pupils *Educational Research and Reviews*. 5 (5). 213-217.
- Nkechi, O., Umemetu, M. &Ogbonnaya, N. O. (2013). Supervision and inspection for effective primary education in Nigeria: Strategies for improvement. *Academic Research International*, 4(4), 586-594.
- Ntitika, J. L. (2014). *Parental characteristics influencing students’ academic performance in public secondary schools*, In Isinya District, Kenya. Unpublished M. Phil. University of Nairobi.
- Obidike, I. V. (2012). Towards effective early childhood care and education programme in Nigeria. *Journal of Teacher Perspective*, 6(3), 507-513.
- Sampson, D. (2004). *Academic performance, mental health and school factors*. Retrieved on July 3, 2008 from www.mentalhealth.com/2321/htm.
- Shittu, M. R. (2004). *Socio economic determiners of academic performance of secondary school students in Nigeria*. Unpublished B.Ed project, University of Ilorin, Ilorin.
- Sirin, S. R. (2005). Socioeconomic status and academic achievement: A meta-analysis review of research. *Rev Educ Res*, 75,417-53. DOI [10.3102/00346543075003417](https://doi.org/10.3102/00346543075003417)
- UNESCO (2001). *Primary Education: The core of development and progress*. UNESCO Education Webmaster.

**CREATIVE TEACHING OF ASTRONOMY IN PRESCHOOL
AND PRIMARY EDUCATION**

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Abstract

The article presents a study of the relevance of the application of creative methods of teaching astronomy in preschool and primary education of Uzbekistan, especially in the context of the modern development of science and technology. During the study, methods for creative teaching of astronomy were developed and described, aimed at shaping children's ideas about the modern scientific astronomical picture of the world. The article analyzes the results of pedagogical experiments, which proved that creative teaching of astronomy significantly increases children's interest in science and contributes to the development of their creative thinking and potential. The main principles of creative teaching of astronomy in preschool and primary education are games, experiments, communication, creativity, and the use of various visualization tools. These methods and principles help children to better understand theory and scientific facts and enable them to participate in activities. Thus, this article can become the basis for the development of new methods and approaches to teaching astronomy in preschool and primary education, as well as for improving the effectiveness of existing methods.

Keywords: astronomy, preschool education, primary education, creativity, development.

Discipline: pedagogy

Absztrakt**A CSILLAGÁSZAT KREATÍV OKTATÁSA AZ ÓVODÁBAN ÉS ÁLTALÁNOS ISKOLÁBAN**

A tanulmány a csillagászat kreatív tanítási módszereinek alkalmazási lehetőségeit mutatja be az üzbég óvodai és általános iskolai oktatásban, a tudomány és technológia modern fejlődésével összefüggésben. A tanulmányban a szerzők a csillagászat kreatív tanításának módszereit ismertetik, amelyek célja a gyermekek a világról alkotott elképzeléseinek formálása modern tudományos csillagászat által. A tanulmány elemzi azon pedagógiai kísérletek eredményeit, amelyek bebizonyították, hogy a csillagászat kreatív tanítása jelentősen növeli a gyermekek érdeklődését a tudomány iránt, és hozzájárul kreatív gondolkodás és potenciál fejlődéséhez. A csillagászat kreatív tanításának fő alapelvei az óvodai és általános iskolai oktatásban a játékok, a kísérletek, a kommunikáció, a kreativitás és a különböző vizualizációs eszközök használata. Ezek a módszerek és elvek segítenek a gyerekeknek abban, hogy jobban megértsék az elméleteket és a tudományos tényeket, és lehetővé teszik számukra, hogy részt vegyenek a tevékenységekben. Így a tanulmány alapjául szolgálhat az óvodai és általános iskolai csillagászat tanításának új módszereinek és megközelítései kidolgozásához, valamint a meglévő módszerek hatékonyságának javításához.

Kulcsszavak: csillagászat, óvodai nevelés, általános iskolai oktatás, kreativitás, fejlesztés

Diszciplína: neveléstudomány

Introduction

The current state of society has set the task of restructuring the general education for the lifelong education system. This task involves the development of children's creative potential, which should lead to the modernization of the existing traditional education system. Scientists have established that a student with a high creative potential differs from others in that: has a creative and intellectual initiative, an active life position; - able to generate new original ideas in solving problematic issues; can go beyond patterns and think creatively, resolve conflicts that have arisen; is able to represent ideas from his/her mind and also construct the future result of his activity; a creative child has an original way out of a problematic situation that has arisen in the educational process; a creative one is characterized by a constant research need, which allows him/her to be in a state of constant search for the previously unknown (Runco and Jaeger, 2012). Research of scientists allowed us to identify creative qualities as

an integral characteristic of a person, which include imagination, a sense of novelty, originality of thinking, intuition, fantasy, inventing, fine art, logical thinking, etc. (Kaufman and Beghetto, 2009; Mező, 2017; Mező & Mező, 2022). To develop the creative potential of children, the development of a special technology is required, which is the subject of this article.

The model of the process of developing the creative potential of children that we propose consists of three stages, which are applied both in traditional and innovative forms of education. However, with an innovative form of teaching, the greatest performance is achieved (Cropley, 2010):

- the motivational-indicative stage of the model helps children to formulate the learning task themselves by performing creative tasks and orients them towards learning new material;
- the operational-executive stage allows children to program the process of cognition through the division of the educational task into

private tasks and the solution of problematic issues by organizing individual or group work;

- the reflective-evaluative stage brings children to independent conclusions, assessment and self-assessment of knowledge; Each lesson ends with a creative homework assignment.

The proposed model for the development of the creative potential of children fits well with extra-curricular activities, the main components of which are games and research work of the participants. The proposed technology for developing the creative potential of children radically changes the entire course of the educational process. The model allows to organize lessons in a completely different way - seminars that activate even the most passive students. In our case, such learning technologies as “technology of technical creativity”, “heuristic immersion in the subject”, “self-reasoning on the problem”, “historical alchemy”, “French workshops”, “model of binary oppositions”, “crossing destinies”, etc. help to revitalize the learning process.

It should be noted that there are empirical prerequisites for the development of the creative potential of students.

Pedagogical systems have evolved over time, with notable figures such as Comenius (2012) and Pestalozzi (2012) contributing to early education. Later, educational approaches were developed and improved upon by psychologists and educators such as Piaget & Inhelder (1972), Bruner (1976) and Montessori (2007). Today, the search for new forms of education that can effectively assimilate complex information without mental strain or harm to health continues, with a need for creative collaboration between philosophers, psychologists, didacticists, methodologists, and practicing teachers.

To achieve the goal of developing the creative potential of children and testing the effectiveness of this teaching technology, it was necessary to organize experimental training. The results of the

control experiment showed the effectiveness of this teaching technology for the development of the creative potential of children.

The conducted research is aimed at developing the creative potential of children in preschool education and students of a primary school, based on the implementation of the proposed teaching technology. During the study, the works of different scientists on the topic of the article were analyzed and the essence of the concepts of "creativity" and "creative potential" was revealed. At the same time, we consider creative potential to be a broader concept than creativity, supplementing its essence with such criteria as “sensitivity to the problem”, “ability to analyze and synthesize, to create the missing details of the object under study”, “divergence of thinking”.

The didactic requirements for the creative teaching of astronomy in a holistic teaching system are determined. These are the requirements: 1) compliance with the mandatory minimum content of astronomical education, 2) interactivity of models, 3) feedback, 4) providing conditions for the formation of research skills, 5) unity of teaching and controlling functions, 6) diversity of types and differentiation of tasks, 7) compliance opportunities for students and the creation of conditions for individual growth.

In the course of the study, a model for the development of the creative potential of children in astronomy was proposed, consisting of the goal, principles, content of the teaching technology. The organization of experimental training contributed to the successful implementation of this technology.

On the basis of the experiment, the relevance of the problem of applying a creative approach to teaching astronomy in the education system is substantiated. Methods for teaching astronomy with a creative approach have been developed for preschool and primary school education. Based on the study of Beghetto & Kaufman (2010) a

structure of the complex of creative tools in astronomy is proposed, which ensures not only the achievement of high results in teaching children, but also the development of their personal growth.

Lesson developments have been created using creative methods in teaching astronomy for pre-school education. The effectiveness of the methodology for using the developed set of tools was experimentally tested and the impact of using these tools on the formation of interest in science, the development of students' cognitive independence and the improvement of the quality of knowledge in physics and astronomy was shown.

As preschool education is the initial link in the system of lifelong education and prepares children for schooling, it is of great importance in preparing for further education in general. That is why the issues of introducing astronomical concepts from early childhood, already in preschool education, should be considered more deeply. And here our task is to introduce elements of astronomical concepts with a creative approach into preschool education. As we know, pre-school education is carried out up to the age of 6-7 in state or non-state pre-school institutions and in the family. A preschool institution is a type of educational institution in the Republic of Uzbekistan that implements general educational programs of preschool education.

Bredekamp and Copple (2008) noted that the purpose of preschool education is to form a healthy, developed, free personality of the child, revealing his abilities, fostering a craving for learning and systematic learning.

The main tasks of modern institutions of preschool education according to UNESCO (2016):

- strengthening the physical and mental health of children;
- formation of the foundations of high spirituality and morality;

- introducing children to national and universal ethical and cultural values, the intellectual development of the child;
- purposeful, systematic preparation of children for schooling;
- development of their individual abilities, giftedness and creativity.

It is creativity that will seriously affect the further development of society (Mező et al., 2017). As we know, teaching how to learn and apply the knowledge gained is more important than simply appropriating a specific set of knowledge. It should be noted that the development of creative potential is one of the most important sources and indicators of the prosperity of our society (Sternberg, 2003). Based on the above tasks, it should be noted that instilling information from early childhood will give good results, including what interests us today, the instillation of elements of astronomical ideas.

According to Hayes (2006) primary education is aimed at developing the foundations of literacy, knowledge and skills necessary for obtaining a general secondary education. Based on the fact that the goal of general secondary education is to equip students with a systematic knowledge of the fundamentals of science, the skills and abilities necessary for activities in various areas of the economy, culture and life, as well as for receiving special education, it is of great importance in preparing for further education (Grigg, 2016).

That is why it is necessary to consider more deeply the issues of introducing elements of astronomical concepts from the very first stages in school education.

The beginning of school education is the basis of the future life of the younger generation. The new primary school standards dictate modern requirements for the conduct of classes (Kaur, 2012). And here our task is to introduce elements of astronomy with a creative approach into the teaching of primary grades (grades 1-4), inside

other subjects. One of these acceptable is "The world around us."

The subject "The world around us" in primary school lays the foundation for the development of children's cognitive interest in such natural and social sciences as geography and biology, physics and chemistry, history and social studies, as well as astronomy. It is designed to accustom children to a holistic, rational achievement of the very surrounding world in which we live (Peacock, 2017; Dockett & Perry, 2014).

According to Contant & Bass (2017) and Buxton & Provenzo (2010) the objectives of the subject "The world around us" are not just the formation of elementary ideas about nature, man and society in their interaction, but also the systematization of this knowledge. As well as familiarity with such methods and tools for studying the world in which we live, such as observation, experiment, modeling, etc. Based on this, it should be noted that the inculcation of elements of astronomical ideas from the initial stages of training will give high results.

Research questions

1. Do teachers use new creative methods in the lessons?
2. Is it possible to substantiate the relevance of the problem of applying a creative approach

in teaching astronomy on the basis of an experiment?

3. Does the use of creative methods contribute to the achievement of a higher level in teaching astronomical concepts to schoolchildren?
4. What structure of the complex of creative methods in astronomy ensures not only the achievement of high results in teaching students, but also the development of their personal growth?
5. How effective is the proposed method for applying the developed complex? Is it possible to experimentally test and show the impact of the use of these tools on the formation of interest in Science, the development of cognitive independence of students and the improvement of the knowledge in astronomy?

Method

There are several new teaching methods in creative, playful and interactive forms, that can be used in preschool and primary schools (Table1). Next, we present creative technologies, ways of conveying astronomical concepts in creative, playful and interactive forms of teaching, which we have applied in preschool and school institutions.

Table 1. Creative teaching of astronomical phenomena to children in preschool and primary education. Source: Authors.

Nº	Stages	Age categories	Name of creative methods and learning technologies
I	Preschool education	3-7 years old	Creative games; Technology of "Invention"; Technology of "If ...", Action on the model; Health saving technologies; Integrated learning technology; Collaborative learning;
II	Primary school education	7-11 years old	Consulting; The method of semantic vision; Learning together; Error method; Inversion method; Empathy method; Method of projects; Travel method to the future; Syntetic's method; Comparison method.

Organization of the pedagogical experiment and its conditions

The purpose of the experimental study was to establish the effectiveness of the introduction of methods for creative teaching of astronomy, the possibility of enhancing cognitive independence and creativity, improving the quality of assimilation of students' knowledge based on creative teaching of astronomy. The given results of psychological-pedagogical and methodical literature served as the basis for putting forward the idea of the study.

The main objectives of the pedagogical experiment were:

1. Finding out the need to create and apply methods of creative teaching of astronomy in the preschool and primary education.
2. Finding out the need to create modern guidelines for the use of creative teaching methods.
3. Checking the possibility of using creative teaching methods, as well as checking the assumption about the effectiveness of the methodology for the integrated application in teaching astronomy, educational and developmental tasks of preschool and primary school, and the development of students' creative, cognition.
4. Implementation of guidelines on the use of creative methods in astronomy and determination of the impact of the integrated use of creative methods on increasing the cognitive independence of students.

Pedagogical experiments were carried out among

Children and educators of preschool institution "Bilimdon" in Tashkent region (Uzbekistan) - Group №9, Group №10 (40 children); Schoolchildren and teachers of primary school №10 of the Tashkent region (Uzbekistan) - Grade 3 "A", Grade 3 "B" (60 children). The experiments

were carried out from September 2021 to March 2022 in three stages: 1. ascertaining, 2. main search and 3. final training experiment.

Ascertaining stage

Ascertaining experiment at the first stage revealed the main problems of teaching astronomy. The discrepancy between the existing methods and modern didactic requirements was stated. From conversations with educators and teachers, it was revealed that new methods of teaching astronomy with a creative approach are needed. At the second stage of the ascertaining experiment, a teaching model was created. The ascertaining experiment at this stage consisted in identifying the main problems of the effectiveness of teaching astronomy using creative methods:

- explaining astronomical concepts in preschools, and arouse children's interest in astronomical phenomena;
- explaining astronomical phenomena that can arouse the interest of primary school students in astronomical concepts;
- organizing the preparation of appropriate training for teachers.

At the same stage, the analysis of the state of modern astronomical education began on the basis of conversations with "teachers and students", their questioning and the study of pedagogical experience.

Search stage

In order to test and identify the effectiveness of creative methods and their application in teaching astronomy, it was necessary to organize and conduct an appropriate pedagogical experiment. The purpose of this ongoing experiment was to study the factor on the object of research. Cognitive interest and, as a result, the development of cognitive independence of students is an important reason for improvement and at the same

time an indicator of the effectiveness and efficiency of the learning process. Data on the levels of cognitive independence of students were used as the output variable. The achievement by students of three levels of cognitive independence was considered: reproductive, partially exploratory and research, psychological and didactic aspects of achieving levels of cognitive independence were summarized.

Training stage

The training experiment consisted of conducting lessons using creative methods in astronomy in the preschool and primary education, called experimental ones. The comparison was made with classes where teaching was conducted without the use of creative teaching methods. During the experiment, the requirement of representativeness was taken into account in the selection of experimental and control classes in order to avoid the unreliability of the results of the pedagogical experiment. Since the improvement in the quality of classes and the creative development of students occurs not only from the use of new creative methods and teaching methods, but also from a significant number of other factors, the relationship should not be a functional dependence, but a correlation relationship.

During the experimental work, various research methods were used: observation of students, analysis of diagnostic tests, analysis of the creative growth of students, their degree of participation in the classroom.

In our case of selective observation, the parameters of the entire set of objects to be examined are unknown. They can only be judged hypothetically. To assess these parameters in pedagogy, the null hypothesis is used, which proceeds from the assumption that the observed changes in properties do not depend on the action of an organized parameter, but are determined by secondary, unregulated random causes in the

educational process.

Hypothesis

As a null hypothesis H_0 , we put forward the assumption that the development of cognitive independence did not increase after the experiment, there was no correction of knowledge, skills and abilities. Let us form the opposite hypothesis H_1 : the application of creative methods of teaching astronomy in preschool and primary education contributes to the development of creative potentials. In the course of hypothesis testing, we will decide which of the statements is true in the light of empirical evidence. Let us take the probability of erroneous rejection of the hypothesis - the level of significance with the usual value of $p = 0,05$. We extract the sample and for the obtained empirical data we determine the statistical criterion and determine the probability of which of their hypotheses is correct.

Correlation coefficient, plotting will be obtained using the Statistica system. The Statistica system is an integrated system for statistical analysis and data processing. Data in Statistica is entered in the form of a table, the correlation coefficient r is calculated automatically.

In the course of testing the hypothesis, a comparison was made of the knowledge and skills of all the participants in the experiment in completing the district diagnostic test in astronomy. During the experiment, the requirement of representativeness was taken into account in the selection of experimental and control classes in order to avoid unreliability of the experimental results.

The experimental group, at the first stage of the experiment, was the group - №9 of the preschool institution "Bilimdon". Group №10 of this preschool institution was chosen as a control group.

At the second stage of the experiment, grade 3 "A" of secondary school №10 was chosen as an experimental class among primary classes. Grade 3 "B" class was chosen as a control class. Children of

a preschool institution, primary school teachers also took part in the expert assessment of the work of students according to the proposed model using creative methods and with a creative approach.

Results

Stage I. The results of the survey of preschool educators

At this initial stage, an analysis of the assessments of educators regarding the use of creative methods in instilling astronomical concepts from an early age showed that most educators believe that creative methods make the process of cognition more visible and develop creative potential by

93%. According to them, only 25% of the creative approach makes the education process more intense. By 45%, creative methods facilitate the assimilation of specific concepts of astronomy. At the same time, they were less gullible about the idea of applying creative methods in line with the preschool curriculum and helping to create the integrity of learning in the next stages of education (Table 2, Figure 1).

After applying the development of classes using creative methods for teaching astronomical phenomena, a second survey of educators was conducted to study the opinions about the possibilities of a creative approach to teaching astronomy (Table 3, Figure 2).

Table 2. Assessment of educators on the possibilities of introducing astronomical concepts with a creative approach in preschool education (before the experiment). Source: Authors.

Survey options	Yes	No	Sometimes
A creative approach makes the learning process more visible and develops the creative potential of children	93%	0%	7%
Creative approach makes the learning process intense	25%	60%	15%
Creative techniques make easier the assimilation of elements of astronomical concepts	45%	24%	31%
The use of creative methods is accordance to the preschool curriculum and helps to create the integrity of learning in the next levels of education	5%	85%	10%

Figure 1. Assessment of educators before the experiment. Source: Authors.

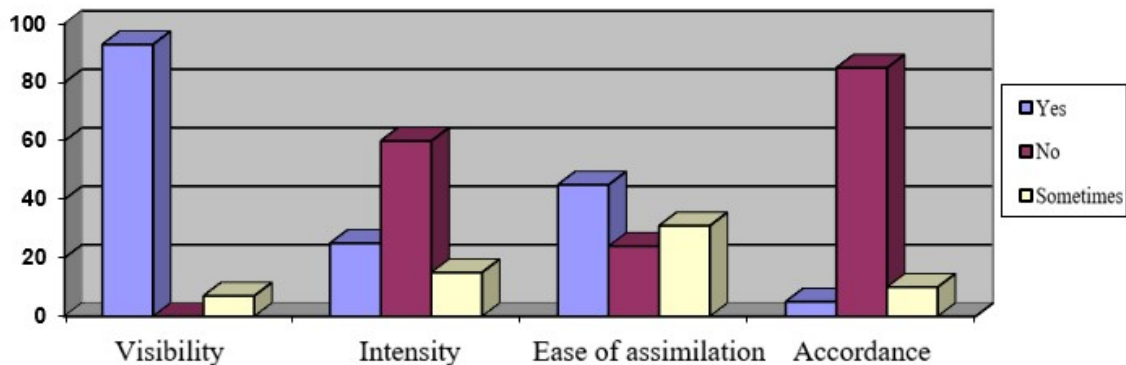
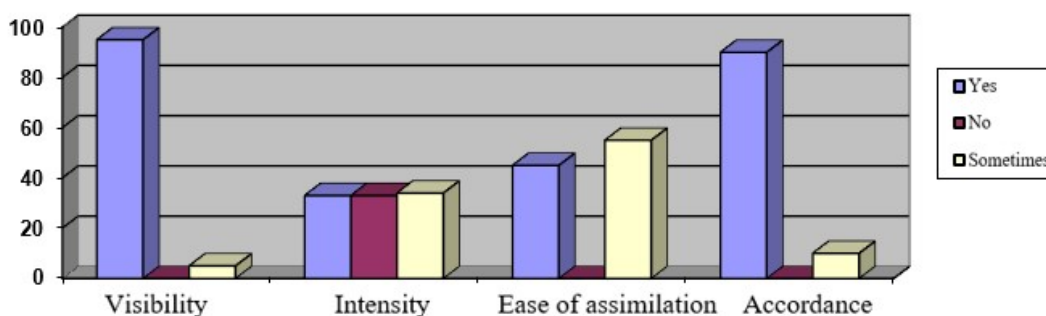


Table 3. Assessment of educators on the possibilities of introducing astronomical concepts using creative methods in preschool education (after the experiment). Source: Authors.

Answer options	Yes	No	Sometimes
A creative approach makes the learning process more visible and develops the creative potential of children	95%	0%	5%
Creative approach makes the learning process intense	33%	33%	34%
Creative techniques make easier the assimilation of elements of astronomical concepts	45%	0%	55%
The use of creative methods is accordance to the preschool curriculum and helps to create the integrity of learning in the next levels of education	90%	0%	10%

Figure 2. Assessment of educators after the experiment. Source: Authors.



As the analysis of the survey shows, after the experiment, the opinion of educators regarding the use of creative methods in instilling astronomical concepts from an early age has changed in a positive direction.

What is very important to note, educators have increased interest in the further application of creative methods, and also noted that this method corresponds to the preschool program and helps to create the integrity of learning in the next levels of education.

Further, to study the state of using creative methods in teaching astronomy, studies were conducted in secondary school №10.

Stage II. Analysis of the survey of primary school teachers

From the analysis of the results of answers to this part of the questions, it can be seen that the number of teachers who use creative teaching methods in the classroom has increased dramatically (from 19% to 58%) (Table 4, Figure 3). Analyzing the answers of teachers to this question of the questionnaire, it can be concluded that the number of teachers choosing a creative type of lesson has increased. It is worth noting that the teachers emphasized that with the use of creative methods, the quality of the lesson has changed significantly, and the interest and discipline of the students have been improved (Table 5).

Table 4. Answers of primary school teachers to question №1. Source: Authors.

Question №1. What modern teaching methods do you use in astronomy lessons?			
Answer options		teachers' answers before the experiment (%)	teachers' answers after experiment (%)
1)	Cooperation pedagogy	57	40
2)	Gaming technologies	17	16
3)	Problem based learning	42	36
4)	Project method	23	51
5)	Study	15	14
6)	Level differentiation	32	31
7)	Group technologies	27	25
8)	Individualization of learning	18	14
9)	Programmed learning	7	3
10)	Creative teaching methods	19	58

Figure 3. Use of modern teaching methods in primary schools. Source: Authors.

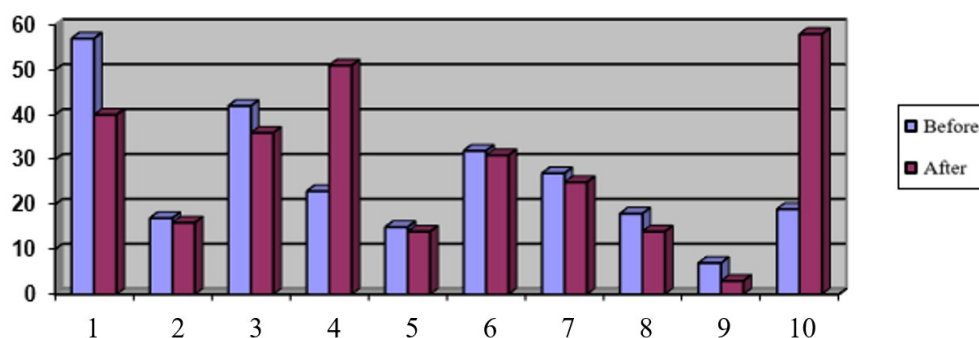


Table 5. Answers of primary school teachers to question №2. Source: Authors.

Question №2. How often do you use the following types of lessons?						
Type of lesson	Before the experiment			After the experiment		
	never	rarely	often	never	rarely	often
Lecture	1	16.5	60	1	17	57
Story lesson	2	11	55	2	10	54
Video lesson	8	29	40	5	23	41
Seminar	3.6	30	36	3	22	33
Research lesson	17	28	3	18	27	3
Conference	11	32.8	6	10	35	5
Creative lesson	37.6	8.2	6	16	18	67

Table 6. Answers of primary school teachers to question №3, Source: Authors.

Question №3. Do you consider yourself ready for active work using creative methods in explaining astronomical concepts?				
Members	Teacher responses before the experiment		Teacher responses after the experiment	
	Yes	No	Yes	No
Primary school teachers	47%	53%	75%	25%

Table 7. Answers of primary school teachers to question №4, Source: Authors.

Question №4. Are you interested in the organization of creative methods in astronomy lessons in the system of continuous education?				
Members	Teacher responses before the experiment		Teacher responses after the experiment	
	Yes	No	Yes	No
Primary school teachers	53%	47%	75%	25%

The analysis of teachers' answers to these questions prompted the development of creative lessons, cooperation with teachers and heated discussions on the further use of such methods step by step, interest is increased in the integrity and continuity of teaching astronomy, as well as its further results (Table 6, 7).

The developed creative methods for teaching astronomical phenomena and astronomy in general, in preschool institutions and for primary grades of schools, were applied in the classroom, tested for effectiveness, amendments were made, recommendations and ideas of primary school teachers were studied.

Search experiment results

The achievement by students of three levels of cognitive independence was considered: reproductive, partially exploratory and research, psychological and didactic aspects of achieving levels of cognitive independence are summarized in the table 8.

In accordance with the main ideas of the study, we set tasks, the solution of which was to confirm the correctness of the proposed hypothesis. During

the search stage, tests were carried out. They were attended by groups of participants from preschool and school institutions. Thus, after the results of the test questions, it finally confirmed the assumption that the use of creative methods in teaching contributes to the achievement of a higher level of development of cognitive independence (Table 8).

During the exploratory phase of the experiment, the didactic tasks of astronomy teaching tools, the search for various forms and methodological teaching methods, the search for models of creative lessons in astronomy, the selection and specification of tasks for independent search and research activities using creative methods were identified. Participants noted that one of the benefits of using a variety of creative tools is that participants can organize their work in an interesting creative format. An important part of the search stage of the experiment was the analysis of the practical application of creative lesson development, the search for a structure for advanced training of astronomy teachers, which contributes to the introduction of new creative technologies in teaching astronomy.

Table 8. Psychological and didactic aspects of the formation of cognitive independence through the methods of educational activity. Source: Authors.

Ability Development	Level characteristic	Achieved level of development of cognitive independence
Development of copying ability	It is characterized by the student's desire to understand, remember and reproduce knowledge, to master the way of its application according to the model. The criterion for this level of activity is the desire of students to understand the phenomenon under study.	Reproductive
Reproducing creative activity	It is characterized by the student's desire to reveal the meaning of the content being studied, to penetrate into the essence of the phenomenon, to know the connection between phenomena and processes, to master the ways of applying knowledge in changed conditions.	Partial search
Development of the ability of constructive and creative activity	It is characterized not only by interest and desire to penetrate deeply into the essence of phenomena and their relationships, but also to find a new way.	Research

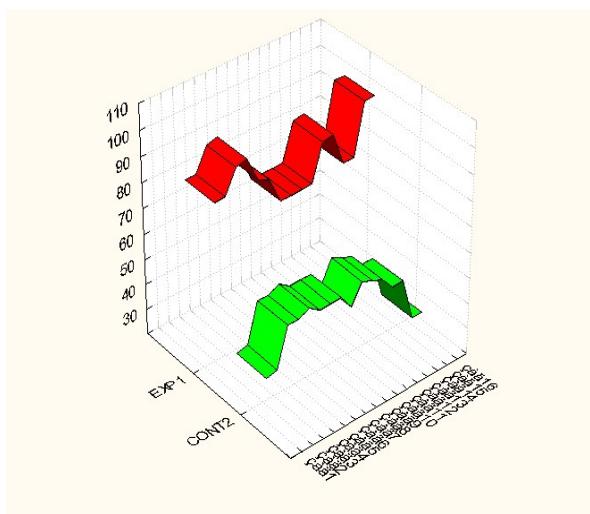
For these schools, a chart of the results of the average grades for the two groups was constructed (Figure 4). On the results diagram, built in three dimensions, two areas of correlation were clearly

distinguished. The same result can be seen in the more well-known two-dimensional diagrams (Figure 5).

Figure 4. Data entry into the integrated system of statistical analysis STATISTICA. Source: Authors.

NUMERIC VALUES	1 EXP1	2 CONT2	3 VAR3	4 VAR4	5 VAR5
ban1	89,000	37,000			
ban2	89,000	38,000			
ban3	98,000	53,000			
ban4	99,000	53,000			
ban5	89,000	55,000			
ban6	87,000	52,000			
ban7	77,000	52,000			
ban8	77,000	52,000			
ban9	77,000	46,000			
ban10	77,000	54,000			
ban11	91,000	52,000			
ban12	92,000	50,000			
ban13	79,000	45,000			
ban14	79,000	45,000			
ban15	99,000	28,000			
ban16	99,000	28,000			

Figure 5. Volumetric diagram of the test results. Source: Authors.



The correlation coefficient $r = -0,37$, which for $p < 0,05$ indicates that there is a moderate relationship. A more visual representation of the correlation can be obtained by analyzing the graphs of the dependences of the control and experimental groups relative to each other (Figure 6). Thus, the alternative hypothesis is accepted. Consequently, the distribution of the results of

performing diagnostic test after the application of creative teaching methods in the system of continuous education is statistically significant. The analysis of this pedagogical experiment confirms our hypothesis with a certainty of at least 95% that the use of creative teaching methods improve the quality of knowledge, this is not due to random factors, but has a natural character (Figure 7).

Figure 6. Correlation calculation. Source: Authors.

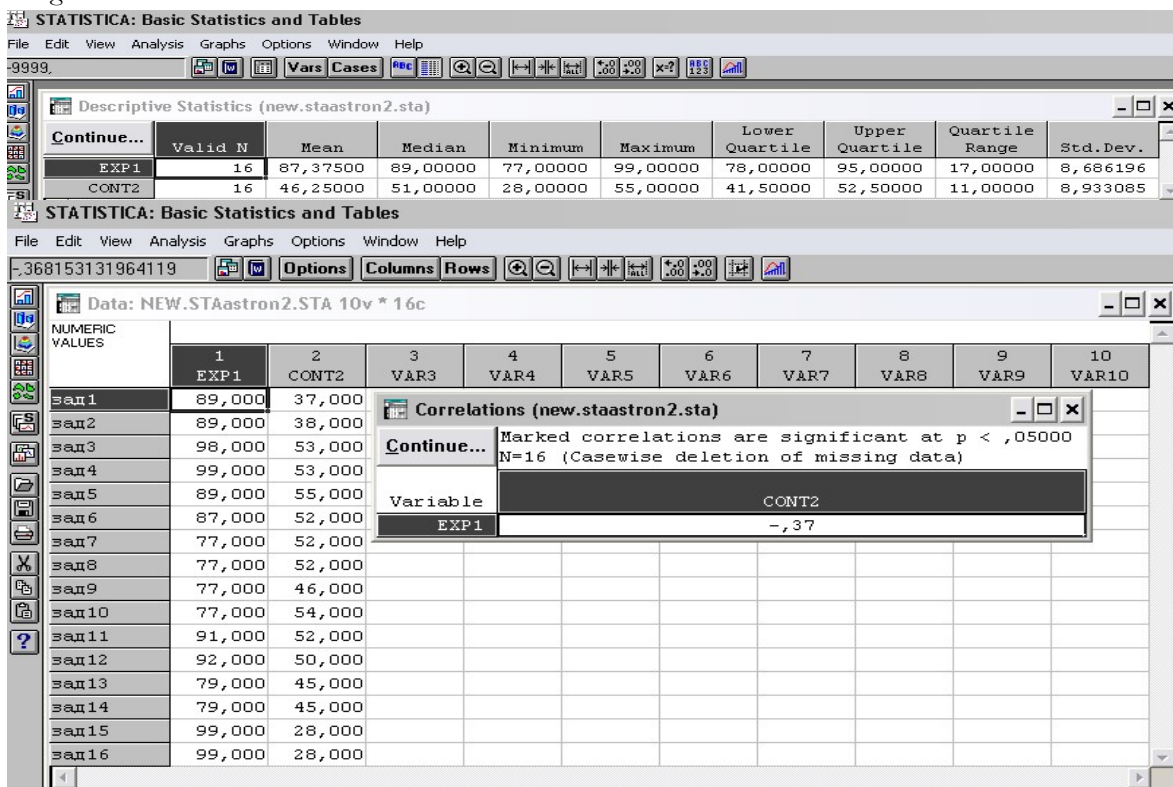
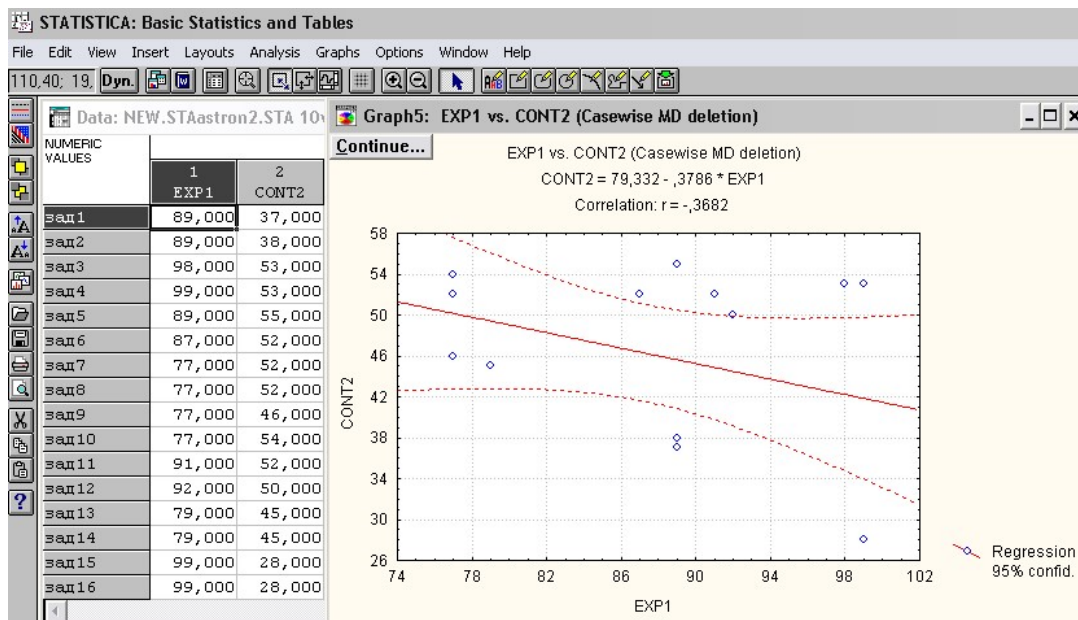


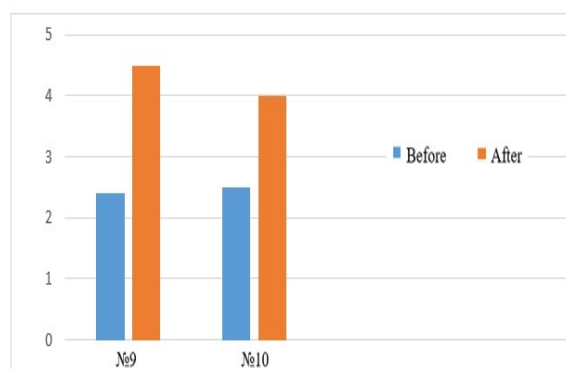
Figure 7. Graphical representation of the dependences of the experimental and control groups with correlation calculation, Source: Authors.



Results of the training experiment

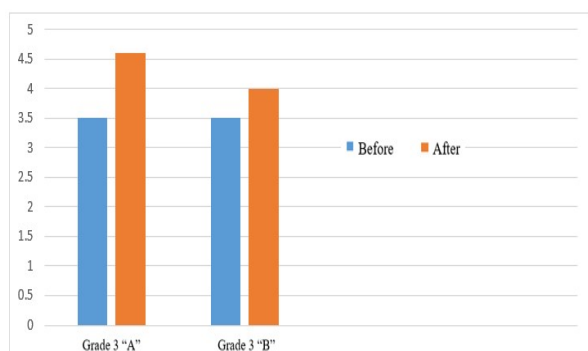
Comparison of the results of the element-by-element analysis of the tests of the experimental and the averaged results of the control classes leads to the following conclusions: the average percentage of completing tasks in terms of complexity is the same for the experimental and control classes, that is, the general trends in completing tasks are the same, but the level of completion of all tasks in the experimental class is higher. Further, we can see this in the following figures (Figure 8), which show the results of the tasks, before and after the experiment, among the experimental and control groups.

Figure 8. The average assessment of the test performance of the experimental and control groups of the preschool institution "Bilimdon". Source: Authors.



The result of the experiment shows that the quality of knowledge and the level of assimilation are higher by 0.5 in the experimental group №9 than in the control group №10 on a 5-point assessment scale.

Figure 9. The average assessment of the performance of tasks in the experimental and control classes of school №10. Source: Authors.



According to the results of the experiment, it can be seen that the quality of knowledge and the level of assimilation are higher in the experimental grade 3 "A", and the average score for completing tasks is 4.6 points, on a 5-point scale. While the average score for completing tasks in the control grade 3 "B" is 4 points (Figure 9).

Discussion

These studies are reduced to the following provisions:

1. The number of teachers using creative methods in the classroom has increased, teachers have begun to apply new creative methods constantly.
2. The complex application of creative techniques contributes to the achievement of a higher level of personal development.
3. Analysis of the results of the pedagogical experiment as a whole confirms the hypo-

thesis with at least 95% confidence that there is a relationship between the use of creative methods and improving the quality of knowledge, achieving a research level of cognitive independence.

4. On the basis of the experiment, the relevance of the problem of applying a creative approach in teaching astronomy is substantiated.
5. Such a structure of the complex of creative means in astronomy is proposed, which ensures not only the achievement of high results in teaching students, but also the development of their personal growth.
6. The effectiveness of the methodology for using the developed set of tools was experimentally tested and the impact of using these tools on the formation of interest in science, the development of students' cognitive independence and the improvement of the quality of knowledge in astronomy was shown.

Conclusion

In conclusion, the study presented in this article highlights the importance of using creative methods of teaching astronomy in preschool and primary education in Uzbekistan. The article discusses the theoretical and practical aspects of creative teaching of astronomy and presents various methods and principles that can be used to make learning more effective and enjoyable for children. The results of pedagogical experiments conducted as part of the study demonstrate that creative teaching of astronomy can significantly increase children's interest in science and contribute to the development of their creative thinking and potential. This study has important implications for the development of new and improved methods of teaching astronomy in preschool and primary education, and for promoting the scientific and creative potential of children in Uzbekistan.

References

- Beghetto, R. A. & Kaufman, J. C. (2010). *Nurturing creativity in the classroom* (1st ed.). Cambridge University Press.
- Bredenkamp, S. & Copple, C. (Eds) (2008). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8* (3rd ed.). National Association for the Education of Young Children.
- Bruner, J. S. (1976). *The process of education*. Harvard University Press.
- Buxton, C. A. & Provenzo, E. F. (2010). *Teaching Science in Elementary and Middle School: A Cognitive and Cultural Approach* (2nd ed.). SAGE Publications.
- Comenius, J. A. (2012). *The great didactic of John Amos Comenius*. Forgotten books.
- Contant, T. & Bass, J. (2017). *Teaching Science through Inquiry-based Instruction* (13th ed.). Pearson.
- Cropley, A. J. (2010). In praise of convergent thinking. *Creativity Research Journal*, 18(3), 391-404. DOI [10.1207/s15326934crj1803_13](https://doi.org/10.1207/s15326934crj1803_13)
- Dockett, S. & Perry, B. (Eds) (2014). *Transitions to school: International research, policy and practice*. Springer.
- Grigg, R. (2016). *Big ideas in education: What every teacher should know*. Crown House Publishing Ltd.
- Hayes, D. (2006). *Primary Education: The Key Concepts*. Routledge.
- Kaufman, J. C., & Beghetto, R. A. (2009). Beyond Big and Little: The Four C Model of Creativity. *Review of General Psychology*, 13(1), 1-12. DOI [10.1037/a0013688](https://doi.org/10.1037/a0013688)
- Kaur, B. (Ed) (2012). *Understanding teaching and learning: Classroom research revisited*. Sense publishers.
- Montessori, M. (2007). *The Montessori method*. Random House.
- Mező, K. (2017). *The Temporal Aspects of Creativity*. (A kreativitás időbeli aspektusai). PhD Dissertation, University of Debrecen.
- Mező, K., Mező, F.; Szabóné, Balogh Á. (2017). The Effect of Testing Time on the Results of Creativity Testing (A tesztfelvétel időtartamának hatása a kreativitástereszték eredményeire). *Hungarian Psychological Review/ Magyar Pszichológiai Szemle*, 72 (3.) 311-324. DOI [10.1556/0016.2017.72.3.1](https://doi.org/10.1556/0016.2017.72.3.1)
- Mező, K. & Mező, F. (2022). Trends and main research issues in domestic creativity research. (A hazai kreativitáskutatás trendjei, főbb vizsgálati kérdései.). *Applied Psychology/ Alkalmazott Pszichológia* 22(2) 21-34. DOI: [10.17627/ALKPSZICH.2022.2.21](https://doi.org/10.17627/ALKPSZICH.2022.2.21)
- Pestalozzi, J. H. (2012). *How Gertrude teaches her children: An attempt to help mothers to teach their own children and an account of the method*. Ulan Press.
- Piaget, J. & Inhelder, B. (1972). *The psychology of the child*. Basic Books.
- Peacock, G. A. (2017). *Primary science: Knowledge and understanding* (8th ed.). Learning Matters.
- Runco, M. A. & Jaeger, G. J. (2012). The standard definition of creativity. *Creativity Research Journal*, 24(1), 92-96. DOI [10.1080/10400419.2012.650092](https://doi.org/10.1080/10400419.2012.650092)
- Sternberg, R. J. (2009). *Wisdom, Intelligence, and Creativity Synthesized*. Cambridge University Press.
- UNESCO (2016). *Education 2030: Incheon Declaration and Framework for Action for the implementation of Sustainable Development Goal 4*. Paris: UNESCO.

MÓDSZERTANI TANULMÁNYOK / METHODOLOGICAL STUDIES

**CULTURAL DIVERSITY AND EARLY CHILDHOOD EDUCATION
THE CASE OF REGGIO EMILIA APPROACH IN DUBAI**

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Abstract

Although the term “culture” is a controversial term and there is no unified meaning that is accepted by all, societies deal with culture in every aspect of day-to-day life and interactions. The dilemma of how to introduce or accept a culture or cultural norm in a society, especially a society that is regarded as multicultural, is felt more intensely. Within international schools and specifically, in the multicultural society of countries such as the United Arab Emirates, this cultural diversity is clearly visible. On the other hand, the world-known and famous Reggio Emilia approach which has been successful in numerous Western countries has found its way to pre-primary education in the UAE. This paper will look into the implementation of the Reggio Emilia approach in the culturally diverse society of the UAE compared to Italy and other Western countries. The aim is to see if the important aspects of the Reggio Emilia approach such as teachers as researchers, children as citizens with rights, the role of the environment, curricula as long-term projects and finally, parents as partners in education enterprise, are indeed implemented in the Reggio Emilia nurseries in the UAE. Or could it be the case that due to the cultural diversity of the UAE this implementation in its full and exact sense is not possible and nurseries in the UAE are only inspired by the approach?

Keywords: culture, cultural diversity, early childhood education, Dubai, Reggio Emilia approach

Discipline: pedagogy

Absztrakt**KULTURÁLIS SOKSZÍNŰSÉG ÉS KISGYERMEKKORI NEVELÉS DUBAJBAN A REGGIO EMILIA MEGKÖZELÍTÉSÉBEN**

A „kultúra” kifejezés ugyan vitatott megnevezés és nincs egy mindenki által elfogadott jelentése, a társadalom minden aspektusban foglalkozik a kultúrával, legyen az mindennapi élet és a hozzá tartozó interakciók. Dilemmát jelent a kultúra és a társadalmi kulturális normák elfogadása és bemutatása legfőképpen olyan szociális környezetben, ahol multikulturalizmus van jelen, és, ahol ennek a hatása jobban is érezhető. Nemzetközi iskolákban, és főleg, olyan multikulturális társadalmi körökben mint az Egyesült Arab Emírátságok, ezek a kulturális változatosságok tisztán észrevehetőek. A világhírű és közzismert Reggio Emilia szemlélet, ami sikert aratott számos nyugati országban, utat talált az Egyesült Arab Emírátságok kora gyermekkori intézményeiben is. Ez a tanulmány betekintést nyújt a Reggio Emilia megközelítés megvalósításába a multikulturális Egyesült Arab Emírátságokban, és egyidejűleg összehasonlítja azt Olaszországgal és más nyugati országgal. A cél az, hogy betekintést nyerjünk a Reggio Emilia szemlélet olyan fontos aspektusaira, mint például a tanárok mint kutatók, a gyerekek mint jogokkal rendelkező állampolgárok, a környezet jelentősége, a tananyag mint hosszútávú projekt, és végül a szülők mint partnerek az oktatásban. Továbbá, valóban jelen vannak-e a felsorolt jellemzők a Reggio Emilia óvodákban az Egyesült Arab Emírátságokban? Vagy azt kell feltételezzük, hogy a teljes és pontos implementációja nem lehetséges a Reggio képviselte szemléletnek az Egyesült Arab Emírátságok kulturális sokfélesége miatt, és az Egyesült Arab Emírátságok óvodáit csak inspirálta ez a megközelítés?

Kulcsszavak: kultúra, kulturális sokszínűség, kisgyermekkori nevelés, Dubaj, Reggio Emilia megközelítés

Diszciplína: neveléstudomány

Introduction

The word “culture” is a controversial term where no one can provide a meaning that is unified and accepted by all. However, we are confronted with it in every aspect of our lives, in our day-to-day interactions with people, as well as, in our educational systems and how our curriculum works. The presence of culture and the controversy over its definition take the form of a dilemma when, and if, we are confronted with a society where there is a multicultural population. In addition, it gets even more demanding when education is involved. In this regard, the educational and administration staff of an international school really need to think twice before introducing a teaching method, an approach or a teaching philosophy. As the name suggests, international schools are normally known for their

international population of staff (teaching or otherwise) and students. The social status of the members in these schools also varies, as at first, they were established for the purpose of providing a national educational system for expatriates sent by their governments to different countries with the aim of doing business or government projects, for instance. As time passed elite locals too desired to send their children to these international schools in the hope of a brighter and more secure future for their children. These international schools with their varied curricula are home to many different students from the pre-primary stage to grade twelve.

This paper will look into the concept of cultural diversity within international schools and the implementation of Reggio Emilia at pre-primary level

education in the United Arab Emirates and most specifically its city of Dubai. The Reggio Emilia approach, which has gained popularity around the world, has also been introduced to the pre-primary educational system of the UAE; however, how effectively and how suitably Reggio Emilia can perform is in dire need of research. The first section of this paper will look into the concept of culture and cultural diversity. The second part of the paper will look into the culture or norms of life in the UAE, as an Arab and a Muslim country, and how different nationalities can live in the same society regardless of their social/cultural background. The third section will introduce the five most important characteristics of the Reggio Emilia approach and compare them with the cultures and norms of the society and educational system in Dubai. The aim is to see if it is really the case that the Western and liberal approach of the Reggio Emilia is and can be as effective as it is in its native land of Reggio Emilia, Italy and in a broader sense in the Western community. Finally, the paper will try to find answers to questions such as: how the Reggio Emilia approach is implemented in at least 22 nurseries in Dubai and how much of the Reggio approach is really implemented and followed in those nurseries. Do these nurseries really follow the Reggio Emilia approach, or they are simply inspired by it?

Literature Review

The term culture amongst anthropologists is a notoriously difficult term to properly define. In 1952, two American anthropologists Kroeber and Kluckhohn reviewed the concept of culture and “compiled a list of 164 different definitions” (cited from Spencer-Oatey, 2012, p. 1). According to Tyler, culture is “the complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society” (ibid). This confusion and multiplicity of definitions

associated with culture is due to the different usages and different understandings that are associated with it. In other words, this term can be defined from different perspectives and for different purposes such as political or ideological needs in different societies. But what is certain about culture is that it is an aspect of human society that is learned via one’s social environment and not inherited from parents. This social learning of culture extends to our behaviour while we interact with other members of the society we live in and therefore share the same culture. According to Spencer-Oatey (2012, 7.), even „our biological needs such as eating habits are influenced by our culture” as we culturally consume food that is typical of our society and culture. For instance, the consumptions of pork products are religiously and culturally rejected in Muslim societies regardless of the degree of religious adherence in those societies, and at times it seems more a cultural choice than a religious prohibition. In this light, it is safe to say that members of societies carry different layers of attitudes and behaviours that correspond to their cultural behaviour. The most significant and different definition of culture was provided by Hofstede, as he recognised layered functionality of culture within certain societies.

1. A national level according to one’s country (or countries for people who have migrated during their lifetime);
2. A regional, ethnic, religious or language groups;
3. A gender level, according to whether a person was born as a girl or as a boy;
4. A role category, e.g. parent, son/daughter, teacher, student, etc;
5. A social class level, associated with educational opportunities and with a person’s occupation or profession;
6. For those who are employed, at an organizational or corporate level according to the way employees have been socialized by their

work organization. (cited from Spencer-Oatey, 2012, 8.).

If these specifications are considered, one can easily detect that each person can be a member of different levels and cultural groups. This is the reason that sometimes people confuse culture with kinship in families or clans for instance, or they are put into a cultural category by the language they speak, their race and ethnicity, socio-economic characteristics and even their political attachments and beliefs. However, this diversity within culture is a two-ended road, as no matter what the culture of a society is the cultural norms and the degrees people follow these norms is different for everyone. This means that a norm being very important to a family could be less important or not at all important to another one, therefore culture is not uniformly distributed within the same group of people or society. In other words, it is not possible to find two individuals who actually do share the same social class, religion, regional or ethnic backgrounds, language and race, hence sharing all cultural content to its perfection. The most important factor about culture is the fact that culture is always subject to gradual change within societies as it is not a static phenomenon. This gradual change can and is always happening with the growth and advancement of societies or in other words in education.

Education and culture can be regarded as two sides of the same coin, as with proper education cultures evolve and flourish, and with good education, cultures change and improve for the better. However, education in a culturally diverse classroom is not and should not be considered an easy task. According to Gay (2013, 49.) „the education of racially, ethnically, and culturally diverse students should promote educational equity and excellence, create community among individuals from different cultural, social and ethnic backgrounds and develop student agency, efficacy and empowerment”. Therefore, it is obvious that a

culturally responsive teaching method will always consider making learning relevant to African American students or Asian Americans for instance. This is due to the fact that these teaching methods and ideas should indeed differ for each group according to their culture, in order to provide the future adults with the necessary tools to function properly in society. Gay continues to elaborate on the idea presented by stating that for instance in America „since all Americans do not have the same set of beliefs, attitudes, customs, values, and norms, a single system of education seems impossible to serve everyone” (2013, 50.). Therefore, and with the globalized world that we are living in, it is important for educators and education policy-makers to understand and accept the existence of cultural pluralism in the world now in the 21st century. Along with this cultural pluralism, it is also important to accept and respect the differences existing amongst students in any one classroom, discrimination and nationality preferences should be eliminated and a more tolerant atmosphere is needed in classrooms, especially in international schools. The acceptance of this cultural diversity in educational systems and classrooms is an indication of behavioural expressions of knowledge transfer, respecting beliefs and religions, understanding values and recognising the importance of this diversity in learning.

UAE and Its Unique Culture

The United Arab Emirates, or the UAE, is situated in the northeast of the Arabian Peninsula and has borders with Oman and Saudi Arabia as well as Qatar. The country was formed in 1971 by the joining of the six emirates of Abu Dhabi, Dubai, Sharjah, Ajman, Umm al-Quwain, Fujairah, and in 1972, Ras al-Khaimah. The capital city is Abu Dhabi which is the largest and the wealthiest of the seven emirates, however, Dubai is most famous for its tourism and nightlife. The country’s population is mostly non-UAE nationals, „with

expats making up 89% of the population” (Alhosani, 2022, 285). The educational system operates on two different sections of national /government schools providing free education to UAE nationals only, and the private schools, which are fee paying and both expats and nationals can enrol. According to the 2021 vision and national agenda, the development of a first-rate educational system for the UAE is emphasized. This can only be done via a „complete transformation of the current education system and teaching method” (cited from Alhosani, 2022, 285.). In that same agenda, a high level of stress and importance has been put on the necessity of preserving the Khaliji or the UAE’s unique culture and religion. However, this emphasis does not mean the exclusion of expats in the UAE’s society as Alhosani notes “one of the government’s goals in this vision is to promote an inclusive environment that integrates all segment of the society” (ibid). In other words, “the UAE continues to be a tolerant, open, caring society that cherishes its traditional roots (Ministry of Information and Culture, 2006, cited from Al-Darmaki & Sayed, 2009, 466.). The founding father of the UAE, the late Shaikh Zayed Bin Sultan Al-Nahyan stressed upon the fact that education is one of the pillars for the proper development of a country as young and prosperous as the UAE.

The Arabic culture is a unique and very complex culture, in which the Islamic religion plays an important part. Islam is the major source of beliefs, practices and values in Islamic countries. These Islamic beliefs are evident in every aspect of Arabic culture as it is the core trait of the values, concepts, ethics and attitudes both personal and in society as the religion is not only regarded as the practice of faith but it is considered as a way of life. In other words, this culture can be regarded as a hidden educational system where every aspect of life, including education, is affected by it. However, due to the diversity of the UAE’s population where different nationalities with different religions and

spoken languages live, a society is formed where one can claim that it is a multicultural environment. It could be due to this multicultural nature of the society that the UAE’s government has put insistence on attempting to preserve the unique Arabic culture in the midst of the country. In that attempt, „the UAE’s culture, customs, and traditions, e.g., Emirati music, art, dance, poetry, camel racing, clothing and food, continue to make up the UAE’s identity” (Al-Darmaki & Sayed, 2009, 466.). The Emirates society is structured on the importance of the family which can be both nuclear and extended, where individuals receive support both emotionally and financially, protection and guidance from their eldest members of the family, as another trait of Islamic culture and educated values. Another specification of the UAE’s culture is the encouragement of individuals „to obey authority figures such as parents and those who are in powerful positions such as teachers and doctors” (Al-Darmaki & Sayed, 2009, 467.). From the perspective of the languages spoken in the country although the native language of the Emirates is Arabic, other languages such as English, Persian and Urdu, amongst others, are widely spoken.

The social ranking of the Emirates as Burton puts „it is divided into three main classes of labour, brains and bank” (cited from Hopkyns, 2020, 31.). According to Davidson’s pyramid illustration, „the Emiratis are the bank at the top, the westerners/western educated are the brains in the middle and the bottom two layers are the labour” (ibid). As it is expected, the result of this social ranking is visible and does lead to cultural detachment among members of the society. This distinction is so vivid in the society as with one cursory look one can notice the difference between Emiratis and other nationalities with their different clothing and style, where men wear the traditional Arabic cloak in white and women with black full-length cloaks and head scarves. This distinction extends to the language spoken by Arab locals by their different

lifestyles, dialect spoken by them, their wealth and social status. In order to effectively run the country in an orderly manner the authorities have set strict rules and codes of conduct in both unwritten and official forms to make sure the clash of cultures is minimised. On the other hand, this sense of otherness is felt and experienced at all social levels where „different nationalities have their own social networks” (Hopkyns, 2020, 32.).

UAE and Early Education

According to the UAE laws, the preschools in the country „have 100% woman workforce” (Gandhi, 2012, 22.) and although compulsory education for children starts at the age of five or six when children are sent to schools for grade one, most parents, Arab locals and expatriates alike, send their children to kindergartens or even nurseries starting from the age of 4 months. Parallel to this choice of schooling there comes the option of hiring foreign live-in maids who act as nannies, babysitters, foster mothers, cooks, and even teachers at home. This is due to the fact that in order to live comfortably in Dubai both parents are required to have full-time jobs, on the other hand hiring full-time nannies is an easy process and even more economical than sending the toddlers to nurseries, hence it has become a trend in UAE’s society. Consequently, children spend a considerable amount of time with these in-home nannies, and according to Gandhi (2012, 17.), most children, „about 58% of them, under the age of three spend around 30-70 hours per week” with these nannies. Gandhi also stresses the fact that „this length of time is far greater than most institutional childcare hours in the US or Europe, which are increasingly criticised for being too long” (ibid). The issue with hiring these nannies is that they are mostly from impoverished backgrounds, have little education and mostly have very poor language skills. These in-home nannies/maids come from different countries such as the

Philippines, India, Sri Lanka and Indonesia, and they have formed a child-at-home model of living in the UAE (Baker, 2015, 983.). For these nannies, English or Arabic for that matter is not their first language and their proficiency in both languages is almost none existent. Furthermore, they usually do not have any qualification in childcare, except from their own experience in case they have children of their own.

According to Lootah (2011), the first private school established in the UAE was in 1960 (cited from Hopkyns, 2020, 38.), the growing number of expatriates coming to the UAE the need of private/international schools increased as well. Among different international schools available in the UAE, the British curriculum is preferred due to „their high academic and general performance” (Hopkyns 2020, 41.), and the language of instruction for these nurseries is English. Although early childhood education also covers the preschool stage and provides care from birth up to age 6 (cited from Alhosani, 2022, 287.) the curriculum of kindergartens in the UAE educating children aged four to six years of age requires to learn nine subject areas such as Arabic literacy, English literacy, Islamic studies for Muslim children, Social studies, mathematics, visual arts, computer sciences, and health and physical education (MOE, 2019, cited from Alhosani 2022, 291.). According to Alhosani (2022, 292) „among the priorities of the kindergarten curriculum is laying the foundation of the cultural, Islamic, and national identity of children”.

Reggio Emilia Approach or Reggio Emilia Inspired

A lot has been said and done with regards to the Reggio Emilia approach. Different researchers have spent their time studying different angles of this North Italian approach and the reason it has become so famous worldwide. According to New (2007, 5.), there are five specific features that

distinguish the early childhood education approach of Reggio Emilia from others:

1. An interpretation of teachers as researchers,
2. Curriculum as long-term projects,
3. The role of symbolic languages in child development and advocacy,
4. The role of environment
5. An interpretation of parents as partners in the education enterprise.

It is also believed that „Reggio Emilia demonstrates the power of creative and critical thinking especially when helped along by courage, charisma, and good timing” (ibid). Another characteristic of the Reggio approach is the fact that it is a European approach with a distinguishable Italian cultural factor embedded in it, which also depicts „the town’s long history of resistance to social injustice and its alliance with Italy’s socialist and communist parties” (New, 2007, 6.). All of these and more makes one think twice before accepting the Reggio established nurseries in the UAE and more specifically in the city of Dubai, as a not entirely Reggio approach but, in the best-case scenario, Reggio approach inspired. Having the five important features of Reggio Emilia’s approach represented above in mind, this paper argues that based on the cultural, linguistic, religious and societal norms and differences between the two countries, the Reggio Emilia approach implemented in the UAE’s nurseries are not Reggio Emilia but they are only inspired by it.

An Interpretation of Teachers as Researchers

The teachers as researchers aspect of Reggio is the most important aspect of this approach where there is no hierarchy of status amongst teachers in Reggio Emilia schools in Italy and the teachers learn and evolve along with the children. (Vargáné, 2018) However, implementing this line of thinking into the nursery organisation system of early education in the UAE is almost impossible. The hierarchy starts with the 51-49% ratio of

sponsorship of the institution before it is even established, where the Arab locals must have 51% of the sponsorship and the rest can be divided among a number of sponsors of different nationalities. At a classroom level, this hierarchy is also visible where there is a teacher and an assistant helping the teacher. These assistants are most of the time from low-income countries, mainly India, Sri Lanka, Indonesia and the Philippines, and the only difference between them and the housemaids is they have some kind of official training in early childhood education. Another important factor with regards to status hierarchy within educational institutions as well as society-wide could be as Matsumoto (2019, 6.) puts it that „in the UAE people generally accept a clearly defined hierarchy of power, inherent inequalities and subordination” as they are cultural traits of the country and very common. Therefore, the fact that a teacher and the assistant in the classroom can act and function as researchers and freely decide on how and what will be the topic of the study on any particular day seems almost unfunctional.

Curriculum as Long-term Projects

This aspect of the Reggio Emilia approach is in clash with the UAE’s government’s vision for 2021 and education reform attempts. As mentioned earlier according to UAE vision 2021, the kindergarten curriculum for children aged four to six should encompass nine subject areas such as Arabic literacy, English literacy, Islamic studies, social studies, math, science, visual arts, computer sciences, and health and physical education. In this regard, the aspect of long-term projects as a curriculum simply does not have any place in the UAE’s educational system. Each nursery and kindergarten in the UAE follows a British and/or American curriculum where they strictly follow the instructions used and provided to them by the higher decision-maker section of the system. Also, the fact that Islamic studies and Arabic literacy are

stressed both by the government and the lifestyle choice of the Muslim population living in the UAE makes it impossible to follow Reggio's long-term project curriculum model in the UAE's nurseries and kindergartens.

The Role of Symbolic Languages in Child Development and Advocacy

The symbolic languages of children are the main ideology of the Reggio Emilia approach where the famous „100 languages of children” has become a trademark of the teaching approach; however, implementing this unique and symbolic language associated with children in the UAE seems almost impossible. The population of nursery attendees in the UAE based on Alkaabi's research (2022, 26.) is up to 90% foreign nationals as the UAE “is home to over 200 nationalities” (Gandhi, 2012, 3.). The wide variety of expatriates residing in the county results in over 200 cultures living side by side. This also means that the linguistics, religious, and cultural beliefs and attitudes of each child are different from the other. As culture is an important factor in the twenty-first century's social structure, it is very unlikely to consider that each child in a Reggio nursery in the UAE can actually have his/her own symbolic language and since this diversity of cultures/nationalities also include the teaching staff, the teachers too are not familiar or even educated with the language of each child. For instance, imagine a situation where an Irish national teacher is trying to understand a Muslim Persian child, and sitting beside this child is an Indian child who is Hindu and speaks different languages at home, with an entirely different culture that includes not only the students but also the teacher. In this sense, the symbolic language aspect of the Reggio approach seems to be unattainable.

The Role of the Environment

This aspect of the Reggio Emilia approach is also of extreme importance based on the classroom

structure of the Reggio institutions children spend a significant amount of time in nature, and the classrooms have bright colours, with nature and greenery elements at every corner available to children to get familiar with their surrounding environment. According to the climate change knowledge portal the UAE „has an arid desert climate with only two main seasons, winter and summer separated by two transitional periods, respectively. The winter season (December to March) has a mean temperature ranging from 16.4 degrees to 24 degrees. The summer season (June to September) is characterized by extremely high temperatures which can be expected to climb up to 50 degrees” (1.1). Having this climate specification of the UAE in mind, and the fact that nurseries in the UAE run 12 months of the year, it is almost impossible for the management of the nurseries and the UAE education policymakers to include the environment aspect of the Reggio approach within the institutions' attempts to follow Reggio. As the temperatures start rising by the end of March and continue to rise up to almost the end of November, this takes up to nine months of the year, when children cannot have access to the natural environment as they do in the Northern city of Reggio Emilia in Italy.

The cultural differences of the students and the parents also play a significant part in this aspect as well. Since most parents prefer to keep their children inside the classrooms where they are not exposed to the extreme heat for instance by going to the park next door, the children remain and spend all day inside the classrooms or in the covered and air-conditioned yards where the heat of the sun and the hot weather does not endanger their health.

An Interpretation of Parents as Partners in Education Enterprise

The most important principle of the Reggio approach is the insistence of the Reggio teachers

on the fact that „they are not substitutes for parents, but rather, share with parents the challenge and responsibility of educating their children” (New, 2007, 8.). The approach’s aim is also to expand „on principles of attachment theory so that the child’s relationships with non-familial adults are mediated by those with whom she has an initial attachment” (Bove, 1999, cited from New, 2007, 8.). This is in contrast with the culture and lifestyle of most people, local Arabs and expatriates alike, to choose between the two options of housemaid care, or international nursery option where the child spends most hours of the day at the nursery. In addition to this, gender roles in Islamic countries such as the UAE are highly influenced by Islamic laws. In these countries gender roles are strictly differentiated, as men are the breadwinners, focusing on achievement in professional careers, while women are housebound, focusing on family and quality of life. In Arab/Muslim countries women are regarded as mothers, wives and caregivers most of the time, while the society is accepted as being patriarchal and gender role stereotypes are the norm in countries like the UAE. However, with globalisation the discovery of oil in the UAE, and the advancement of technology and education, this hierarchical status and women's role in society is moving towards a more liberal treatment of women, but there is still a long way to go. In this regard, the last principle of the Reggio approach which is the partnership of the parents in their children’s education seems to be an impossible task at hand, as fathers are always busy with work and mothers, if not employees of any kind, have limited time or knowledge to be immensely involved in their children’s education.

Conclusion

This paper looked into cultural diversity and its impact in multicultural societies such as the UAE. Although culture has been associated with identity, race, ethnicity, nation, language and religion, one

can consider all of these to be determinants of a specific culture. Within education and most specifically early childhood education, different approaches have been successfully functioning in the UAE. With the government’s 2021 vision the reform policy of the educational system in the country, and the fact Reggio Emilia approach has gained worldwide recognition, a number of nurseries in the UAE are claiming to be Reggio nurseries.

Based on the five most important factors of the Reggio approach, such as the interpretation of teachers as researchers, the curriculum as a long-term project, the role of symbolic languages in child development and advocacy, the role of environment and finally the interpretation of parents as partners in education, it is clear that due to the unique culture of the UAE and the multicultural essence of the society in the country implementing the Reggio Emilia approach is not possible. The claim is that due to cultural, governmental regulations, and religious laws these five principles are simply ineffective and unresponsive in societies as diverse as the UAE. The fact that the Reggio Emilia approach is applicable in Italian culture and with some slight modification in Western countries can be traced back to the similarities between the cultures shared in the West. Therefore, it is obvious the Reggio approach cannot be replicated in full and in its entirety in a Muslim and Arabic country, where a rich and dominant Arabic culture is practised every single day. The environment which is one of the most important principles of the Reggio approach is simply unavailable to those establishments in the UAE due to the harsh, desert climate it is located in. On the other hand, the 100 languages of the children which has become the slogan of the approach and is famous around the world cannot be implemented, paid attention to or simply applicable due to the multi-national society of each classroom, especially when the classroom attendees are children under the age of six. These

international schools/nurseries who claim to follow the Reggio approach, although doing an amazing job putting an effort into improving early childhood education in the UAE, are merely inspired by the approach and not the Reggio Emilia approach as it is practised in its motherland. However, with the wealth, the endless opportunities available to investors and educators, the UAE can be a fertile ground for improvement and implementing an Islamic/Arabic version of the Reggio Emilia approach where children of all nationalities can experience a world-class education and build a proper foundation for a bright future. Until then there is a long way to go and a lot of questions that are in dire need of answers. Questions like, how religion can play such an important role in early childhood education? How to minimise the gap between the gender roles in Islamic societies where both men and women are involved in their children's education. How can children of all races, ethnicities and religions share their 100 languages and be understood by their classmates and educators alike? In short is it possible that the East meets the West without the cultural clashes the world as we know it today is in real need of such understanding and advancement starting with our young generations to come.

References

- Al-Darmaki, F. (2009). Counselling Challenges Within the Cultural Context of the United Arab Emirates. In M. A. Sayed (Ed.), *International handbook of cross-cultural counselling: cultural assumptions and practices worldwide* (465–474). essay, Sage Publications.
- Alhosani, N. (2022). The Influence of Culture on Early Childhood Education Curriculum in the UAE. *ECNU Review of Education*, 5, 284–298. DOI [10.1177/20965311221085984](https://doi.org/10.1177/20965311221085984)
- Alkaabi, M. (2022). *The Prospects of Reggio Emilia in the UAE as an Investigative Study: the Effectivity of the Italian Curriculum's Reggio Emilia Approach in UAE's Public School* (dissertation).
- Baker, F. (2015). Reflections on the Reggio Emilia Approach as Inspiration for Early Childhood Teacher Education in Abu Dhabi, UAE. *Early Child Development and Care*, 185, 982–995. DOI [10.1080/03004430.2014.974036](https://doi.org/10.1080/03004430.2014.974036)
- Climate Change Knowledge Portal. (2021). *Climate Change Knowledge Portal: For Development Practitioners and Policy Makers*. Climate Change Knowledge Portal: for development practitioners and policy makers. Retrieved March 29, 2023, from www.climateknowledgeportal.org/country/united-arab-emirates/climate-data-historical
- Gandhi, V. K. (2012). *An Investigative Study into the Socialization and Learning of Children at a Preschool in Dubai, UAE and the Parental Demographic Factors that may Contribute to it* (dissertation).
- Gay, G. (2013). Teaching To and Through Cultural Diversity. *Curriculum Inquiry*, 43, 48–70.
- Hopkyns, S. (2020). *The Impact of Global English on Cultural Identities in the United Arab Emirates, Wanted not Welcome*. Routledge.
- Matsumoto, A. (2019). Literature Review on Education Reform in the UAE. *International Journal of Reform*, 28, 4–23. DOI [10.1177/1056787918824188](https://doi.org/10.1177/1056787918824188)
- New, R. (2007). Reggio Emilia as Cultural Activity Theory in Practice. *Theory Into Practice*, 46, 5–13.
- Spencer-Oatey, H. (2012). What is Culture? A compilation of Quotations. *GlobalPAD Core Concepts*.
- UAE Vision 2021. (2018). *Cohesive Society and Preserved Identity*. National Agenda 2021. <https://www.vision2021.ae/en/national-agenda-2021>
- Vargáné, Nagy A. (2018): A Reggio pedagógia sajátos szemlélete. [The Special Approach of Reggio Pedagogy] In: Vargáné, Nagy Anikó (szerk.) *Családi nevelés 3*. Debrecen, Didakt, 131–153.

REGGIO EMILIA APPROACH AND PRE-SCHOOL EDUCATION IN DUBAI

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Abstract

Early childhood education and care have become an important aspect of society and the well-being of people. A proper early childhood education can build a solid foundation for lifelong learning achievement and reduce the cost of lost talent and spending on social, health and even justice systems. Within early childhood education, the Reggio Emilia approach has gained popularity around the world and a number of countries in the West employ this approach in their early childhood educational system. In the young and prosperous country of the United Arab Emirates with its famous city of Dubai, this child-centred approach is also famous amongst affluent families with young children. This paper looks into early childhood education and the Reggio Emilia approach in the city of Dubai and how this is presented in the educational system of the UAE.

Keywords: early childhood education, Reggio Emilia approach, Dubai

Discipline: pedagogy

Absztrakt

A REGGIO EMILIA MEGKÖZELÍTÉS ÉS A KORA GYERMEKKORI NEVELÉS DUBAIBAN

A kora gyermekkori nevelés és gondozás mind a társadalom, mind az emberek jólétének szempontjából fontossá vált. A megfelelő kora gyermekkori nevelés szilárd alapot teremthet az élethosszig tartó tanulási teljesítményhez, csökkentheti az elvesztett tehetség ígéreték költségeit, valamint a szociális, egészségügyi és még az igazságszolgáltatási rendszerekre fordított kiadásokat is. A kora gyermekkori nevelésen belül a Reggio Emilia az egyik olyan szemlélet, ami népszerűvé vált világszerte, és számos nyugati ország

alkalmazza ezt a megközelítést koragyermekkorai oktatási rendszerében. Az Egyesült Arab Emírátságokban kedvelt Dubaiban is ez a gyermekközpontú szemlélet vált híressé a kisgyermekes családok körében. Ez a tanulmány a kora gyermekkorai nevelést és a Reggio Emilia szemléletet vizsgálja Dubaiban, valamint azt, hogyan jelenik meg az Egyesült Arab Emírátságok oktatási rendszerében.

Kulcsszavak: kora gyermekkorai nevelés, Reggio Emilia szemlélet, Dubai

Diszciplína: neveléstudomány

Introduction

It is universally agreed that education is a requirement for human beings. Therefore, it is only natural for families and parents to wish and desire a bright future for their offspring to have a better future through better education when they grow to become adults as well as arming them with the necessary skills and knowledge to survive and prosper in this ever-changing world that we live in. This knowledge-acquiring process, depending on different countries and their educational policies may start at different ages. However, Early Childhood Education and Care (ECEC) has become an important aspect of society and the well-being of people. According to the 2011 European Commission “if solid foundations are laid in the early years later learning is more effective and is more likely to continue life-long, lessening the risk of early school leaving, increasing the equality of educational outcomes and reducing the cost for society in terms of lost talent and of public spending on social, health and even justice systems”; therefore, it is only logical to offer all young people the chance to high-quality education to fully exploit their inherent talents. This advancement when given early, will in time cause a break in the cycle of disadvantages that are passed down to the next generations, regardless of race, nationality, religion, colour or the geographical area young children are born and live in. Another advantage of high-quality early childhood education and care is that it gives the parents, mostly young and inexperienced parents, the ability to organise their lives based on family

and work responsibilities. And finally, ECEC can support children in their future education and their process of integration into the wider society, especially in the globalized world that we are living in, it can also generate well-being, and contribute to future employability later on in life. These positive effects of ECEC are again more beneficial for disadvantaged families to give them a chance for a better future and particularly can help with the migration phenomenon and the migrant families with low income to survive in the fast-growing world.

Perhaps it could be due to all the reasons mentioned above or the fact that right after the disastrous World War two, the parents and citizens of a northern Italian city called Reggio Emilia in an act of unity and collective responsibility decided they needed to create a better society for their children and that begins with the nursery. The fact that the people of Reggio had come to this decision right after the war and the fact that they started this approach with early childhood education might have their message and a deeper understanding of the situation of the people at the time. This unity could also indicate the understanding of the people knowing how a properly raised child can affect the community they live in and the world as he is indeed a member of the global world and not just his community. With the extraordinary vision of a young teacher called Loris Malaguzzi and the efforts of the parents, a new philosophy was born, an approach known as the Reggio Emilia approach. The first local and municipal preschool establish-

ment for children between 3 to 6 years of age that followed this approach was opened in 1963 and since then the growth, improvement and advancement of this approach has been steady and constant. This was followed by the first infant-toddler centres for the age group of three months to 3 years. In 1995 the Reggio Children organization was founded followed by the global interest in this approach and has the full title of „The Centre for the Promotion and Defence of the Rights of Children”, to spread research in the field of ECEC education and the Reggio approach.

Literature Review

The national and municipal programme that was founded by citizens of the city of Reggio Emilia in Italy has captured the attention of many educators worldwide but what makes it unique is not a significant curriculum filled with rules and strict guidelines, but a liberal understanding and consideration that tiny human beings have rights too. (Pálfi et al., 2020) In his own words Malaguzzi explains (1993, 9) „we continue to be convinced that without attention to the central importance of teachers and families, our view of children is incomplete, therefore, our proposition is to consider a triad at the centre of education, children, teachers and families”. Rinaldi (2013, 18.) believes that the key concept of Reggio Emilia is „the concept of child as citizen right from birth”. Rinaldi argues further that „when we define the child as a competent subject, we mean competent first of all in learning and therefore in living and when we talk about the child as a possessor of rights, we want to affirm something even more innovative” (ibid). Valentine (1991, 1.) believes that the Reggio model is of much interest to educators in Scotland. Valentine argues that Reggio is an approach that „is a socio-constructive model” and it is „influenced by the theory of Lev Vygotsky, which states that children and adults co-construct their theories and knowledge through the relationships that they build with

other people and the surrounding environment”. Therefore, it is obvious that this approach draws attention to an image of the child as a „strong, capable protagonist in his or her own learning, and importantly as a subject of rights” (ibid). According to Gandini (1993, 5.) „the educators in Reggio Emilia speak first and foremost about the image they have of a child” as for them „all children have preparedness, potential, curiosity, and interest in constructing their learning, in engaging in social interaction and negotiating with everything the environment brings to them. Based on this point of view educators must focus on each child. However, this focus is not on a child in isolation, but each child is viewed in his relations with other children, his family, the teachers at the school and the environment of that school, as well as the community he is living in and the wider society. Hence, Reggio Emilia implements a system where all the relationships are interconnected, supported and improved. It goes without saying that in any curriculum the safety and wellbeing of pupils should be guaranteed, however, Reggio Emilia considers the safety and wellbeing of the children connected to that of their parents, teachers and educators whom they meet daily at the schools. It is also imperative to keep in mind that in Reggio Emilia approach, Children’s rights are recognised and based on this recognition they should be provided with the highest quality of care and education that society can offer. All the above-mentioned specifications of Reggio Emilia are vividly understood with the famous saying of Malaguzzi himself with “the hundred languages” metaphor. Tijnagel-Schoenaker (2019, 139.) stresses that „children can express their ideas, feelings and thoughts in many different ways, he/she can do that in hundred languages”. Tijnagel-Schoenaker believes that „respect for the talents of the child and the way the child develops is a starting point of this approach and is up to adults to offer a rich environment, opportunities, and materials and to create situations

that allow children to further develop these opportunities. To put it simply Edwards et al (1998, xvi) explain that the „Reggio system is a collection of schools for young children in which each child’s intellectual, emotional, social, and moral potentials are carefully cultivated and guided”. Edwards et al. believe that „this principal educational vehicle involves youngsters in long-term engrossing projects, which are carried out in a beautiful, healthy, love-filled setting” (ibid).

According to the Reggio Emilia approach’s website (i.1), eleven values are the core of this approach.

Children are active protagonists in their growing processes. The first value focuses on the fact that children are indeed equipped with an extraordinary potential to learn, while this learning process can be an exchange of cultural and social context. Since every child has rights, therefore, every child in isolation and their relationships with groups can construct the experiences to the extent that makes them capable of attributing meaning and sense.

The hundred languages. The second value indicates that children, as any human being, have in them a hundred languages in many different forms. They possess a hundred ways of expressing themselves, understanding the world around them, and different ways of thinking via which they can understand the otherness and yet this does not separate them from each other because of the diverse world that we live in. The phrase “the hundred languages” has since become a metaphor to indicate the extraordinary potential that children possess, their knowledge and creativity, and the myriad forms with which living is manifested and the ways knowledge is formed.

The original poem “The Hundred Languages” which was written by Malaguzzi was translated by Gandini into English (i.1). In an extraordinary attempt a Hungarian and enthusiastic scholar of early childhood education has translated the poem into Hungarian which is the only version of the

poem in this language (Vargáné Nagy, 2018, 135-136). The Persian version of the poem was translated by the author and under the supervision of a native Italian/Persian enthusiast and the Arabic translation is also added at the end of the paper for the reference of those interested (Appendix1).

Participation. The third value which can be seen as an educational strategy focuses upon the fact that via participation in different activities, the hundred languages of children, as well as human beings, is implemented, understood and the plurality of points of view and different cultures is practised and given a chance to be familiarized. Participation also invites positive attitudes such as inclusion, expressing feelings and the culture of solidarity, and responsibility and enables change and invents new norms and cultures.

Learning as a process of construction, subjective and in groups. This value aims to consider children as human beings regardless of age and considers them as constructors of knowledge, competencies and autonomies, which then lead to the process of learning research strategies, exchanging ideas and discussions, and participating with peers.

Educational research. It is an undeniable fact that research is essential in life, as it leads people towards knowledge and understanding of truth. In the Reggio Emilia approach, the priority is given between adults and children on daily basis to discover and interpret the complexity of the world first-hand.

Educational documentation. The sixth value focuses on the important aspect of documentation as an integral part of educational theories and practices. It allows documenting the learning process to be evaluated, and this can be done on individual pupils or their interactions in groups with peers as well as adults.

Progettazione/Designing. An Italian word and not so easy to translate, “*progettazione*” is considered an act of designing didactics, of environment, participation, and professional growth on personal and

group levels. However, this does not mean to be achieved by pre-defined programs and lesson plans per se. *Progettazione* is achieved via the close cooperation between how the works should be designed and how educational research should relate to it.

Organisation. Nothing works perfectly or effectively if some kind of organisation is not implemented to achieve a goal. Therefore, the organisation of work, spaces, children's time, and their interactions with adults are considered an important part of the values of this educational approach. From the perspective of the institutional level, organising takes place by constructing a network of responsibilities that are always co-shared at different levels such as administration and pedagogy.

Environment and spaces. To send our children to a venue where they will spend almost half of their day requires that place to be safe in every sense. This is the reason that the interior and exterior of Reggio Emilia infant-toddler centres and preschools are specifically unique. They are designed and organised in an interconnected manner, and they offer every requirement to the children and adults to live together and conduct their research. The environment, however, changes based on the projects and learning experiences and based on the needs of little humans.

Formation and professional growth. This value specifically focuses on the Reggio Emilia educators and those who are involved in this approach. Professional growth is considered the right and the duty of everyone be it a person or a member of a group. This growth is included as part of the working hours and is organised in content and form and every person's particular participation.

Evaluation. As part of every aspect of school life, evaluation is the final value of the Reggio Emilia approach. Every infant-toddler centre and preschool is equipped with tools such as the Charter of Services, the pedagogical coordination group, the school's collective work group etc. as well as documentation and the participation of the families

and the local community makes evaluation unique and one of a kind. Bearing the above values in mind and because Reggio Emilia identifies environment as the third teacher, after parents and teachers at the school, the way Reggio Emilia infant-toddler and preschool works differs from traditional schools or nurseries. In Reggio Emilia, parents hold an active part in their children's learning process. The physical spaces of the schools encourage positive communication and friendly relationships. The layout of the classrooms gives the possibility to the children to spend time with their teachers or other peers or to spend time alone. However, small group cooperation is emphasised as educators are aware that children learn better if they work with peers. However, children's rhythm and sense of time in planning activities and projects are also considered, as this way educators get to know their pupils individually and this is an important factor as each teacher remains with the same group of children for a three-year cycle. During the learning process the environment is changed based on the developmental needs and interests of the group, and to effectively plan and proceed with the day's lesson teachers observe the children closely and plan their work by providing occasions for discovery and learning. In the Reggio Emilia approach teachers consider themselves as learners and enjoy spending time discovering and seeing the world from the children's perspective and there are no dominant teacher/pupil relationships between them. This equal relationship extends beyond teacher and student as each classroom has a pair of co-workers instead of the traditional head teacher and assistant, and this system is further supported by a team of pedagogical coordinators who support all the teachers, parents as well and the community.

The influence of Reggio Emilia around the globe has been magnificent. According to Foerch & Lupsa (2016, 337-346), several countries have been positively affected by the Reggio Emilia approach

and philosophy. In the United States of America, the Model Early Learning Centre (MELC) which is in Washington DC follows the Reggio approach. The claim is that the Reggio Emilia approach has “positively affected students from some of the most difficult and underprivileged preschools in the United States” (Foerch & Lupsa, 2016, 337). Gambetti as the international Reggio liaison spent a year at the MELC to understand the approach fully, and interestingly one of the most difficult tasks for Gambetti was to „convince parents to get involved in their children’s education” (ibid). Although Reggio Emilia approach is only implemented for preschool children and is used as an early childhood education methodology some educational experts and researchers at Harvard University believe that this approach can also be „highly effective with older children and adults” (2016, 338). A project called “Project Zero” led by Gardner, Krechvesky and Siegel looked into the „power of documentation and individual and group learning” (ibid).

In South America, The REDSOLARE is the Latin-American association that supports the Reggio approach in Brazil, Colombia, Mexico, Chile, and Uruguay.

For instance, the RedSOLARE (RSB) in Brazil is a network to coordinate and disseminate ideas on education based on the Reggio Emilia approach. The idea is to defend childhood culture from an “integral perspective, integrated with real changes between Brazilian states and Latin American countries” (Foerch & Lupsa, 2016, 340).

In European countries, in Sweden, the Reggio Emilia Institute is the responsible body of the approach offering different kinds of programs and what is more significant about the approach in Sweden is it is open to all. The two divisions of Reggio working in Stockholm and the rest of the country, Reggio in Sweden provides „opportunities for professional developments at the location of schools” (Foerch & Lupsa. 2016, 341). While in

Denmark the Danish Reggio Emilia Network was set up under the acronym REMIDA named after King Midas because everything he touched turned into gold, a very appropriate name for the approach and what it hopes to achieve. The Danish Reggio Emilia Network offers a biannual publication called Reflections, which is free for those interested. In Germany, Reggio Emilia is a profit-making association that invites participants to regular professional exchanges. The German initiatives welcome participants to exchange their professional experiences on a regular basis, therefore research, development and documentation of the project conducted in Germany can be considered as an expansion of the works done in Reggio Emilia in Italy (ibid). United Kingdom’s Sightlines Initiative is the national organization that collaborates with Reggio Children Network. This organization aims to nurture creativity and explore reflective practices and „action research as tools to investigate and improve early childhood education in the UK” (Foerch & Lupsa, 2016, 344) while in Spain this responsibility is given to DIIP which stands for *Desing Infancia* (Childhood), *Innovación* (Innovation), and *Proyectos* (Projects). In South Africa, for example, St. Mary’s independent school for girls from infancy implements the Reggio approach. At this school, like all other Reggio Emilia approach schools the teacher and child relationship is at the core of the educational practice. According to the school’s website, „teachers are held in high regard and enter an intellectual dialogue with children. They provoke occasions of discovery through inspired listening and join the children in their excitement and curiosity in creating, exploring, and learning (St. Mary’s School Waverly, paragraph 2. Cited from Foerch & Lupsa, 2016, 345). And finally, in Australia, the Reggio Emilia Australia Information Exchange (REAIE) Organization was established in 2000 with more than 3000 members to represent a form of understanding, sharing of resources, and development in

Australian schools. According to the Australian organisation, Reggio Emilia is an approach that focuses on ongoing thinking, research and advocacy. This organisation has over 3000 participants and it represents understating and development as well as sharing of resources to implement the Reggio Emilia in the Australian preschool system.

United Arab Emirates and Educational System

The country located on the shores of the Persian Gulf under the name of the United Arab Emirates consists of seven emirates that include the capital city of Abu Dhabi, the second largest city, or emirates as they are famously known, and the financial heart of the country Dubai and five smaller emirates of Sharjah, Ajman, Umm al-Quwain, Fujairah, and Ras al-Khaimah. These seven emirates under the provision and leader of its founding father Sheikh Zayed Bin Sultan Al Nahyan were united in 1971 and formed a country that is now known worldwide as the UAE. With a population of slightly over 10 million inhabitants out of which 89% are expatriates (Global Median Insights, Dubai, 2021) the educational system operates in 2 diverse directions. The first one is the government schools specifically for UAE national students where there are no fees to be paid to attend these schools for nationals, and the private schools which are fee paying and both national and expatriate students can join. The Ministry of Education (MOE) is the responsible body overseeing educational affairs in the country; while in Dubai the Educational affairs are handled by the Knowledge and Human Development Authority (KHDA) and in the capital this responsibility is given to Abu Dhabi Education and Knowledge Department (ADEK).

Like every other country, education is considered one of the priorities of the country in its quest for advancement and finding its place amongst the countries in the region and worldwide. The way the

UAE government values education is proven by the improvements and restructuring of the educational system in the country in the last two decades. According to Alhosani (2022, 285), since 24% of the UAE population is under the age of 18, the high level of investment and governmental support to improve the educational system has become the core goal of the country. Alhosani stresses that „laying the foundation to work towards the aspired outcomes is achieved by incorporating the values of Vision 2021 into the objectives, methods, content, resources, and assessment of teaching and learning” (ibid). As per vision 2021 statement „the UAE vision 2021 National Agenda emphasizes the development of a first-rate education system which will require a complete transformation of the current education system and teaching methods” (UAE vision 2021, 2018B, cited from Alhosani, 2018, 286). It is also worth mentioning that this reformation and improvement of the education system in the UAE, although necessary and stressed, comes with the government’s goal to still preserve their roots and culture. Alhosani argues that the traditional aspect of education has „a high level of importance placed on culture and religion” with the government stressing on „promoting an inclusive environment that integrates all segments of society while preserving the UAE’s unique culture, heritage and traditions and reinforces social and family cohesion” (2018, 286.). Having this vision in mind the UAE government has set its focus on the education system and started with Early Childhood education.

Early Childhood Education in Dubai

No one can deny the importance of the early developmental years of every human being which starts from birth to the age of 6 or 7 years old when the child is sent to school. During these years along with physical development, other achievements like language, emotional, social and cognitive advancement are acquired. These developments are

the foundation of later years' success when the child is an adult. According to Vandebroek (2022, 172-173) based on several research on Early Childhood and Care „there is now robust evidence that all children benefit from ECEC, as ECEC has the potential to increase language development, pre-academic skills, cognitive outcomes, as well as social and emotional development”. However, for the ECEC to function and become effective enough to help young minds to improve and grow, it needs to provide a good quality of education and care. Vandebroek argues that „the core of the quality of ECEC resided in the educational and emotional support that childcare and teaching staff provide for the children as well as on their relations with parents” (ibid), and therefore, it is obvious that a high-quality ECEC can benefit not only parents and in the short term but the society in the long run.

Alhosani indicates that „in the UAE, the term ‘early childhood’ covers the ‘preschool stage which includes any form of education and organized care for children from birth until the age of 6” (2022, 287). Based on the Ministry of Education’s policies „the framework of the ‘Emirati school’ describes the ideal start for every child, which can be provided through the provision of high-quality education and care and is viewed as part of the national strategies (ibid). This is then better achieved by having an additional focus on the culture as „the culture as a defining element of the community’s traditions and lifestyle is thus an integral part of the early childhood curriculum” (ibid). Within the national curriculum for ECEC and mostly in the kindergartens, children of national/Arab background aged four to six years of age can attend nine different areas of education taught in these schools. The first topic that is introduced in kindergartens by the Ministry of Education is Arabic literacy, followed by English Literacy, Islamic studies, social studies, math, science, visual arts, computer sciences, and health and physical education.

In this national curriculum and under the supervision of the Ministry of Education, the child is the centre of teaching, and all the elements are implemented according to the child’s needs and abilities, their learning styles, and the fact of whether they possess prior knowledge of the topic or not. Of course, the child’s safety, mental well-being, and health are also considered and stressed. However, the above-mentioned policies and guidelines are in place for national ECEC centres where only local/Arab parents send their children. While keeping in mind that 89% of the UAE’s population are expatriates these guidelines and strategies need to be modified. To facilitate an educational programme for the 89% expatriate population who live and have an essential role in the development of a very young country, an international school system was implemented in the UAE. According to the Knowledge and Human Development Authority’s website (i. 2), in the academic year of 2022-2023, 216 inter-national schools are functioning in Dubai alone. The table 1 below shows how the gradual addition to the list of schools indicates the importance of the proper functioning of international schools in the UAE and more specifically in Dubai.

Table 1. Dubai private school open data based on online KHDA 2023 report

Academic Year	Number of schools
2011-2012	148
2012-2013	153
2013-2014	158
2014-2015	169
2015-2016	173
2016-2017	181
2017-2018	194
2018-2019	209
2019-2020	209
2020-2021	209
2021-2022	215

A quick look at the Dubai private school open data report indicates the wide variety of curriculums under which these schools function. Accord-

ding to the KHDA 2023 online report, the school's curricula range from the UK curriculum to Chinese, Japanese, American, Indian, international Baccalaureate to Australian, French and German. However, according to the KHDA website, these multi-disciplinary functioning schools are under the supervision of a branch of KHDA, named as Dubai School Inspection Bureau (DSIB). According to the DSIB, a yearly inspection is conducted for all international schools in Dubai to monitor and help schools improve their education quality to world standards.

Early childhood education and different systems in Dubai

According to Edarabia (i.3), a trusted educational source in the field of education functioning in Dubai since 2005, over 263 registered early learning centres are functioning in Dubai. This website indicates that the first licensed nursery to be established in the country was in 1984, and it also states that in the academic year, 2022-2023 over 80% of children under the age of 5 attend kindergartens. According to the website, different curricula are functioning in Dubai, and they range

from Montessori to UK EYFS, French, Swedish, IPC and Reggio Emilia. The website also gives a detailed list of the nurseries that advertise as working within the Reggio Emilia approach. The table below gives the ranking and the curricula of each nursery.

Art Village Nursery: the "Art Village Nursery" (2018, Reggio Emilia Philosophy) website (i.4) indicates that the organization is a branch of 'award-winning Amadeus Preschool in Stockholm' that is inspired by Reggio Emilia where their pedagogical approach is deeply rooted in a humanistic philosophy of life. They stress that "a nursery should be fun, safe and educational for all children" and to achieve that they have four parallel profiles of "song and music, dance and movement, theatre and drama, art and design". Their policy accepts children from the age of twelve months to four years of age where they aim to provide an environment where every child is given a chance to „express, share, investigate, research, create, explore, try on hypotheses and much more". The aim is to challenge and develop the children's ability and train them to socialise with respect, and accepting, encouraging freedom to express themselves and explore the world around them.

Table 2. Reggio Emilia Nurseries in Dubai

Name	Curriculum	KHDA ranking	Parental Rating	website
Art Village Nursery	Swedish/Reggio Emilia	None	41	https://artvillagenursery.com/
*Willow Children's Nursery	UK EYFS/Reggio Emilia	None	32	N/A
Odyssey Nursery	American/Reggio Emilia	None	27	https://www.odysseynursery.com/
Green Grass Nursery	UK EYFS/Reggio Emilia/Montessori	None	18	https://www.greengrassnursery.com/
Blossom Nursery	UK EYFS/Reggio Emilia/Montessori	None	8	https://www.theblossomnursery.com/
White Dove Nursery	UK EYFS/Reggio Emilia	None	3	N/A

Willow Children's Nursery: The Willow Children's Nursery (2023, the willow approach) is functioning on both the UK's Early Years and Foundation state curriculum and Reggio Emilia, they have focused on an integrated early years programme. The nursery was established in 2010 and claims to have specially allocated areas within the school premises. They provide green landscapes with water play areas, sand play and bicycle areas to experience nature. There is also an atelier where the children can work on their creativity and explore life through touch, feel and discovering material, textures, mediums and techniques. According to the nursery's policy, they accept babies from the age of 45 days who are looked after by midwives who are trained as early-year educators. The nursery claims that the rest of the staff are also degree holders in early education with the minimum qualification of teachers being Cache level three.

Odyssey Nursery: the Odyssey Nursery (2023, the Odyssey methodology) was established in 2008 the nursery is famous for catering to children under the age of two. According to the nursery's website (i.5), the organisation focuses on offering a full-service, and all-inclusive child development facility. They accept children from the age of four months old up to four years of age. They follow Washington State Early Learning Developmental Benchmarks to care and develop and are accepted as a progressive and accountable system for early-year education. They incorporate the Reggio Emilia approach within the American curriculum and try to personalise the teaching method based on each child's needs and capabilities. The website claims that "the system stimulates the child as much as possible to give them the best foundation in life."

Green Grass Nursery: Green Grass Nursery (our mission, our vision) was established in 2013, Green Grass Nursery is a British boutique nursery that accepts children from the age of four months old to five years of age. With the UK EYFS framework, the nursery also implements the theories of

Montessori and Reggio Emilia. The nursery website (i.6) promises to take care of the children with staff and teachers who are loving, kind and caring.

Blossom Nursery: Blossom Nursery (2021, curriculum) was established in 2003, the nursery website (i.7) claims it has over 550 nurseries across Europe, the Americas, and the Middle East with more than 50,000 students in twelve countries. They cater to children from the age of four months old up to six years of age. The nursery claims to focus on a global mission to „build a better world by providing a strong and qualitative educational program to the future generation". This is achieved by focusing on „self-confidence and self-esteem, language and strong basic learnings, and positive relationship and openness to the world."

White Dove Nursery: White Dove Nursery (2023) was founded in 2018, the aim is to provide children with an environment that enriches, and nurtures experiencing life and offers numerous opportunities for children to explore, investigate and learn. They have UK EYFS and Reggio Emilia approach however there is no further information provided by the school or its website (N/A). As it is seen in Table 2 none of the nurseries listed in this table is ranked by the KHDA as one expects. The website of each nursery was visited for careful evaluations of the services they provide and the opportunities given to families and their children. The goals and objectives of each nursery were evaluated and among the list of the Reggio Emilia nurseries those who had rankings from parents were chosen for this paper. Aside from the year of the establishment of each nursery and sometimes the number of staff there is no other information about how the nursery recruits its staff. It is not clear to what extent they implement the Reggio Emilia approach and how trained and prepared the educators are. It is also unclear how each classroom is organised, as there is no indication of two co-teachers working with the children during the three-year cycle as it is customary in the Reggio

approach. It is also unclear how a European approach is functioning with the diversity of the culture/language/religion and ethnicity in these nurseries and how the staff are trained to professionally work in such a multinational environment.

Conclusion

As an approach, Reggio Emilia has inspired many ECEC educators who would like to follow the steps taken by Malaguzzi more than 6 decades ago. However, according to Gandini (1993, 5), „educators in Reggio Emilia have no intention of suggesting that their programme should be looked at as a model to be copied by another country; but rather their work should be considered as an educational experience that consists of practice and careful reflection that is continuously readjusted”. However, as in all other sciences, Reggio educators are also keen to share their experiences with other educators so the knowledge of the Reggio Emilia will help with the teaching of the young people, as well as exchanging ideas and novel initiatives with other schools in other countries around the world. Since, UAE and more specifically Dubai is best known for its international structure and bearing in mind the fact that over 89% of its population consists of people with diverse cultures, languages and religions, it is a question that one might ask how an exclusively European approach can function and fulfil the needs and requirement of an educational system in such a multicultural country. As Gandini (1993, 5) stresses the fact that „education has to focus on each child” but „not each child is considered in isolation but each child is seen in relation with other children, with the family, with the teachers, with the environment of the school, with the community, and with the wider society”. Having the eleven values of the Reggio Emilia approach one needs to be careful to understand how this approach works and how it can be implemented in an international society like

the UAE. According to my understanding based on 4 decades living in the UAE it is safe to say that the schools and nurseries who claim to have implemented and follow the Reggio Emilia approach are only inspired by it and do not and cannot follow it for numerous reasons. For instance, one of the very strong barriers to following the values of Reggio Emilia is cultural differences. One can argue that Reggio is a national approach for the Italian population where the cultural differences and language difference for that matter is down to zero as every child is treated and respected based on the same culture and language that comes with it. However, this is simply not plausible in Dubai society as in one classroom even in schools that are specifically established by any one country, like Iranian schools in Dubai or German schools, there are students from other countries with different cultures and languages. This is because every school in Dubai is considered an international/fee-paying school specifically for expatriates living in the country. The second issue which is also related to the first issue mentioned above is the social ranking of the country itself. It is the norm in the UAE for the locals to have a separate lifestyle, schools, laws, and educational system separate from the expatriate population. Therefore, the liberal and democratic bases of the Reggio Emilia approach are simply not plausible as certain nationalities are hired for certain jobs. In ECEC establishments and educational organisations, educators are first chosen from the local applicants, and the ranking goes from top to bottom where teachers from the Philippines or Sri Lanka are considered assistants or school maids who handle the hygiene of the infants. Another issue that comes to mind is the involvement of the parents in the education of their children as another value stressed by Reggio Emilia approach. Due to the busy lifestyle of the UAE and the fact that expatriates are required to work hard to have a decent life in the promising land of Dubai, they

simply do not have any time to spare and prefer to pay the very high fees of the nursery and have someone else take care of their children while they can fulfil their professional responsibilities. Religion is another factor that can cause a barrier for the Reggio Emilia approach to true function in Dubai as most of the families are regarded as religious families and each family has their religion, ranging from the two sects of Islam to Buddhism, and Christianity. It is also worth mentioning that the staffing of the schools and nurseries is mainly done by the management of the school in the best case scenario. They hire mostly women educators and the aim is to hire native European/English teachers whose appearance can add prestige value to the school regardless of their educational backgrounds and the fact of whether they are trained ECEC educators or not. The assistance positions are then given to other nationalities where they can cooperate with the native first teacher of the classroom, which is simply against the Reggio values. Based on the few examples mentioned so far it is then obvious that the exact replication of the Reggio Emilia approach is almost impossible within the UAE's educational system. The best strategy would be to make good use of different Reggio values and change it to suit the norms and values of a specific country to provide an effective, all-inclusive, and liberal educational system right from a child's journey in life.

As regards the strategies and functioning of Reggio Emilia nurseries in Dubai, there seems to be a huge gap that needs to be filled with further research. It is imperative to understand to what extent each nursery follows the Reggio values, do they take the "environment as the third teacher" motto of Reggio seriously? How do they document the process of children's development? How much access do they have to nature due to the UAE's harsh weather? How much atelier time is given to children and how do they learn to use different elements to understand the world around them?

And finally, are the educators and staff working in Reggio nurseries in Dubai trained Reggio personnel, do they undergo special training, and do they have to have a certain certificate to be given the position they are working based on that?

References

- Alhosani, N. (2022). The influence of culture on early childhood education curriculum in the UAE. *ECNU Review of Education*, 5(2), 284–298. DOI [10.1177/20965311221085984](https://doi.org/10.1177/20965311221085984)
- Foerch, D., & Iuspa, F. (2016). The internationalisation of the Reggio Emilia philosophy. *Revista Contrapontos*, 16(2), 321–350. DOI [16.321.10.14210](https://doi.org/10.14210/16.321.10.14210)
- Forman, G., Gandini, L., & Edwards, C. (1998). *The hundred languages of children: The Reggio Emilia Approach - Advanced Reflections*. Greenwood.
- Gandini, L. (n.d.). Fundamentals of the Reggio Emilia Approach to Early Childhood Education. *Young Children*, 49(1), 4–8.
- Malaguzzi, L., & Gandini, L. (1993). For an Education Based on Relationships. *Young Children*, 49.
- Rinaldi, C. (2013). *Re-imagining childhood: The inspiration of Reggio Emilia education principles in South Australia*. Government of South Australia.
- Pálfi S.; Rákó, E.; Varga Nagy. A. ; Teszenyi T. (2020). Children's rights in Hungary in early childhood education and care In Jane, Murray; Beth, Blue Swadener; Kylie, Smith (edit) *The Routledge-International-Handbook-of-Young-Childrens-Rights*. London, Routledge of Taylor and Francis Group. 354-365.
- Tijnagel-Schoenaker, B. (2018). The Reggio Emilia approach... the Hundred languages. *Prima Educatione*, 1, 139. DOI [10.17951/pe.2017.1.139](https://doi.org/10.17951/pe.2017.1.139)
- Valentine, M. (1999). The Reggio Emilia Approach to Early Years Education. *Early Education Support Series*.

- Vandenbroeck, M. (2020). Early childhood care and education policies that make a difference. *The Palgrave Handbook of Family Policy*, 169–191. DOI [10.1007/978-3-030-54618-2_8](https://doi.org/10.1007/978-3-030-54618-2_8)
- Vargáné, Nagy A. (2018): A Reggio pedagógia sajátos szemlélete. [The Special Approach of Reggio Pedagogy] In: Vargáné, Nagy A. (szerk.). *Családi nevelés 3*. Debrecen, Didakt, 131-153.
- (i.1) Reggio Emilia. (n.d.). *Values*. Reggio Children. Retrieved February 23, 2023, from <https://www.reggiochildren.it/en/reggio-emilia-approach/valori-en/>
- (i.2) KHDA. (n.d.). *Dubai Schools Inspection Bureau (DSIB)*. KHDA. Retrieved February 23, 2023, from [https://web.khda.gov.ae/en/Resources/Private-education-quality-in-dubai/Dubai-Schools-Inspection-Bureau-\(DSIB\)](https://web.khda.gov.ae/en/Resources/Private-education-quality-in-dubai/Dubai-Schools-Inspection-Bureau-(DSIB))
- (i.3) Edarabia. (2023, January 31). *25 best nurseries in Reggio Emilia - top ratings (2023 fees)*. edarabia.com. Retrieved February 23, 2023, from <https://www.edarabia.com/nurseries/reggio-emilia/>
- (i.4) Art Village Nursery. (2022, September 30). *Best nursery in Dubai for creative children*. Art Village Nursery. Retrieved February 23, 2023, from <https://artvillagenursery.com/>
- (i.5) Odyssey Nursery. (n.d.). *Home*. Odyssey Nursery. Retrieved February 23, 2023, from <https://www.odysseynursery.com/>
- (i.6) Grass Nursery. (2023, February 7). *British nursery in Dubai*. Grass Nursery. Retrieved February 23, 2023, from <https://www.greengrassnursery.com/>
- (i.7) The Blossom Nursery. (n.d.). *Welcome to blossom nursery!* The Blossom Nursery. Retrieved February 23, 2023, from <https://www.theblossomnursery.com/>
- 52011DC0066. EUR. (n.d.). Retrieved February 23, 2023, from <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A52011DC0066>
- (i.8) Malaguzzi, L. (n.d.). *100 languages*. Reggio Children. Retrieved February 28, 2023, from <https://www.reggiochildren.it/en/reggio-emilia-approach/100-linguaggi-en/>
- KHDA. (n.d.). *School fees fact sheet 2022-2023*. KHDA. Retrieved February 23, 2023, from <https://web.khda.gov.ae/en/>
- United Arab Emirates (UAE) population statistics 2023: GMI*. Official GMI Blog. (2023, February 15). Retrieved February 23, 2023, from <https://www.globalmediainsight.com/blog/uae-population-statistics/>

Appendix 1.

Original Italian version by Loris Malaguzzi (2016)*	Translated into English translated by Lella Gandini (i.8)	Translated into Hungarian by Dr. Aniko Vargáné Nagy (2018)	Translated into Persian by Fatemeh Farouhi (2023)	Translated into Arabic by: Rasha Esmail Al-Shafe'ie (2023)
<p>100 linguaggi INVECE IL CENTO C'È Il bambino è fatto di cento. Il bambino ha cento lingue cento mani cento pensieri cento modi di pensare di giocare e di parlare cento sempre cento modi di ascoltare di stupire di amare cento allegrie per cantare e capire cento mondi da scoprire cento mondi da inventare cento mondi da sognare. Il bambino ha cento lingue (e poi cento cento cento) ma gliene rubano novantanove. La scuola e la cultura gli separano la testa dal corpo. Gli dicono: di pensare senza mani di fare senza testa di ascoltare e di non parlare di capire senza allegrie di amare e di stupirsi solo a Pasqua e a Natale. Gli dicono:</p>	<p>100 languages NO WAY. THE HUNDRED IS THERE The child is made of one hundred. The child has a hundred languages a hundred hands a hundred thoughts a hundred ways of thinking of playing, of speaking. A hundred always a hundred ways of listening of marvelling of loving a hundred joys for singing and understanding a hundred worlds to discover a hundred worlds to invent a hundred worlds to dream. The child has a hundred languages (and a hundred hundred hundred more) but they steal ninety-nine. The school and the culture separate the head from the body. They tell the child: to think without hands to do without head to listen and not to speak to understand without joy</p>	<p>100 nyelv AZ NEM LEHET. A SZÁZFÉLE LÉTEZIK A gyermek százból van. A gyermeknek száz nyelve van száz keze száz gondolata százféle módon gondolkodik játszik és beszél. A száz, mindig százféle ráfigyelés rácsodálkozás, szeretet az éneklés és belátás százféle öröme százféle felfedezendő százféle újítandó százféle megálmodandó világ. A gyermeknek száz nyelve van (és még száz, száz és száz) de tőle kilencvenkilencet ellopnak. Az iskola a kultúra a fejet a testtől elválasztja a gyermeknek azt mondja hogy kéz nélkül gondolkodjon fej nélkül tegyen hallgasson és ne beszéljen</p>	<p>عدد ۱۰۰ همه جا هست کودک از صد ساخته شده است: هر کودکی صد نوع گفتار دارد صد دست برای انجام کار، صد فکر، صد راه برای تفکر، برای بازی، برای حرف زدن. و همیشه صد راه برای گوش دادن و ابراز عشق و شگفت زده شدن، صد راه برای شادی و شعر خواندن و فهمیدن، صد جهان برای کشف کردن و صد دنیا برای خلق کردن و آرزو کردن. هر کودکی صد زبان دارد و صد ها راه ارتباط با دنیای پیرامون خود اما: نود و نه زبان از او نزدیده می شود. مدارس و فرهنگ ها ذهن و جسم کودک را از هم جدا می کند: از کودک می خواهند بدون استفاده از دست فکر کند، بدون استفاده از فکر دستانش را به کار بگیرد، که گوش بکند اما حرف نزند، که یاد بگیرد اما لذت نبرد، که دوست داشته باشد و شگفت زده شود اما فقط در عید پاک و کریسمس، به کودک می گویند: دنیا را همانطور که هست کشف کنند و از او نود و نه راه دیگر را می دزدند.</p>	<p>الطفل مكون من مئة الطفل عنده مئة لغة مئة يد مئة فكرة مئة طريقة للتفكير للعب، للحديث مئة دائما مئة طريقة للاستماع للحظة للحب مئة فرحة للغناء وللهم مئة كلمة لاكتشاف مئة عالم للحلم الطفل لديه مئة لغة ومئة ومئة ومئة أكثر ولكنهم سرقوا تسع وتسعين المدرسة والثقافة تفصل الرأس عن الجسد يقولون للطفل: فكر بلا يدك واعمل بلا تفكير اسمع ولا تتحدث افهم ولا تتمتع احب واندهش فقط في عيد الميلاد وفي عيد الفصح يقولون للطفل اكتشف عالما اكتشف من قبل ومن المنة يسرقون تسع وتسعين</p>
<p>di scoprire il mondo che già c'è e di cento gliene rubano novantanove. Gli dicono: che il gioco e il lavoro la realtà e la fantasia la scienza e l'immaginazione il cielo e la terra la ragione e il sogno sono cose che non stanno insieme. Gli dicono insomma che il cento non c'è. Il bambino dice: invece il cento c'è.</p>	<p>to love and to marvel only at Easter and Christmas. They tell the child: to discover the world already there and of the hundred they steal ninety-nine. They tell the child: that work and play reality and fantasy science and imagination sky and earth reason and dream are things that do not belong together. And thus they tell the child that the hundred is not there. The child says: No way. The hundred is there.</p>	<p>a megértést ne élvezze szeressen és csodáljon de csak húsvétkor és karácsonykor. Azt mondják a gyermeknek: hogy fedezze fel a már megismert világot, így a száz világból kilencvenkilencet ellopnak tőle. Azt mondják a gyermeknek: hogy munka és játék valóság és fantázia tudomány és képzelet ég és föld értelem és álom olyan dolgok amelyek nem tartoznak össze. Ezért azt mondják a gyerekeknek, hogy a száz nincs. Mire a gyermek azt feleli: Az nem lehet! A százféle létezik.</p>	<p>آنها می گویند: که کار و بازی، واقعیت و افسانه، علم و تخیل، آسمان و زمین، واقعیت و رویا، پدیده هایی هستند که با هم نمی توانند باشند. در نتیجه به کودک می گویند: صد راه برای کشف و درک وجود ندارد اما کودک می گوید: غیر ممکن است، همیشه برای کشف و درک صد ها راه وجود دارد. لوریس مالاکوتزی، ترجمه فاطمه اروقی</p>	<p>يقولون للطفل ان اللعب والعمل الحقيقة والخيال العلم والمخيلة السماء والأرض العقل والحلم هي أشياء لا تنتمي بعضها البعض ويهدأ يقولون للطفل المنة غير موجودة والطفل يقول مستحيل، المنة موجودة الترجمة: رشا اسماعيل الشافعي منة لغة</p>

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la Loris Malaguzzi et al., I cento linguaggi dei bambini - Catalogo della Mostra, Reggio Children, Reggio Emilia, 1996
http://www.compita.it/wp-content/uploads/2018/11/testi-Loris-Malaguzzi_-_Giornata-Letteratura-2.pdf

UNVEILING INTERNATIONAL DOCTORAL STUDENTS' SOCIAL ADAPTATION
IN HUNGARY

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Abstract

International students who chose Hungary as their study destination must adapt to Hungary's society. Knowing the social adaptation of international students, especially doctoral students, gave another perspective on social adaptation in higher education. The study aimed to uncover the social adaptation of international students in Hungary. And to understand how international students adapted to society in Hungary. This study method is qualitative research design, and the instrument of the study was the semi-structured interview. The study also presents descriptive statistics on demographic data. In our sample, there were seven international students who were from Asian countries such as Indonesia, Malaysia, Myanmar, Uzbekistan, and Iraq. interview and demographic data. The language of the interview was English. This study identified eleven categories in the students' adaptation. They were personality, the first visited place, the first friend, adaptation types, ways to make acquaintances, time adjustment, challenges in social adaptation, factors in social adaptation, setting social adaptation, self-reflection, and unfamiliar activities or new habits.

Keywords: culture differences, international students, Hungary, social adaptation

Discipline: pedagogy

Absztrakt

DOKTORI KÉPZÉSBEN RÉSZVEVŐ KÜLFÖLDI HALLGATÓK TÁRSADALMI ALKALMAZKODÁSÁNAK FELTÁRÁSA MAGYARORSZÁGON

A Magyarországot választó külföldi hallgatóknak alkalmazkodniuk kell a magyar társadalomhoz. A nemzetközi hallgatók, különösen a doktoranduszok társadalmi adaptációjának ismerete újabb perspektívát adott a felsőoktatási társadalmi adaptációnak. A tanulmány célja a külföldi hallgatók magyarországi társadalmi adaptációjának feltárása volt és az, hogy megértsük, hogyan alkalmazkodtak a nemzetközi hallgatók a magyarországi társadalomhoz. A tanulmány módszere kvalitatív vizsgálat, ahol félig strukturált interjúkat alkalmaztunk. A tanulmány a demográfiai adatok leíró statisztikáit is ismerteti. A mintánkban hét nemzetközi diák került, akik Indonéziából, Malajziából, Mianmarból, Üzbegisztánból és Irakból érkeztek. Az interjúkat angol nyelven készülték. A tanulmány tizenegy kategóriát azonosít a tanulók alkalmazkodásában. Ezek a személyiség, az első meglátogatott hely, az első barát, az adaptációs típusok, az ismerkedés módjai, az időhöz való alkalmazkodás, a társas alkalmazkodás kihívása, a társadalmi alkalmazkodás tényezője, a társadalmi adaptáció beállítása, az önreflexió, valamint egy ismeretlen tevékenység vagy új szokás.

Kulcsszavak: kulturális különbségek, nemzetközi hallgatók, Magyarország, társadalmi adaptáció

Diszciplína: neveléstudomány

Hungary became a famous study destination for international students. There were many international students who wanted to study at the university level in Hungary. Universities in Hungary were increasingly effective at recruiting international students. Over the past few years, the number of international students enrolled in Hungarian higher education has increased steadily (Zemplenyi, 2022). International students who chose Hungary as their study country destination must adapt to the new environment and people in Hungary. In a university environment, the vital aspect to which international students must pay attention is the individual. Whether they have professions as students, teachers, staff, et cetera, international students must know how to adapt within their communities. It was because every society includes a "set of principles or norms, or norms of human nature, governing their relations to one another and the community, to a particular group, to the state, family, etc., and supported by personal conviction, tradition, upbringing, and the power of any society or a specific group thereof." These principles or rules represent the morality of a specific form of society and are exclusive to that society. Moral norms reflected aspects of the social being of the people,

as manifested in their relationships, which were distinct for each type of society, just as their economic and political tenets of existence are distinct (Terziev, 2019a).

Before addressing the issue of social adaptation, it is vital to define what adaptation is. In the etymology of the term "adaptation," which derived from the Latin word "adaptation" and was incorporated into the Russian and German languages as "adaptation". In literary terms, it was interpreted as adaptation and accommodation. In biology, it refers to the adaptation of organisms to their environment in order to survive. In literature, it is referred to as accommodation, which is the modification of text to make it understandable to readers and audiences. Through the lens of social processes, adaptation was understood as the individual's adjustment to the social environment (Terziev, 2019b) The question that emerged was why social adaptation is crucial. Based on previous research on social adaptation, AlZboon (2013) found that the adaptive person got to a point where his or her actions and behaviors fit in with his or her social environment. This gave him or her balanced, positive social relationships with the people around him. This, in turn, had a positive

effect on all parts of his or her life, especially his or her motivation to achieve, since this is one of the most important social needs that a person has. Makeeva et al., (2022) stated in their finding on the adaptation of international students that, raised in a confined community, the majority of Samarans had never understood other cultures or communicated without an imperialistic bias. They did not comprehend how living in a foreign country and being receptive to a different way of life could influence an individual's personality and career in the direction of development, sensitivity, holism, and awareness. Misra & Castillo (2004) stated in their study of American and international students that the students' behavioral, emotional, and physiological responses to stressors were not investigated in this study. Future research should investigate intra-group and inter-group differences, as these may also influence stress perceptions and responses.

Further, Vershinina & Kocheva (2015) also stated that acceptance of cultural differences was interpreted as the foreign students' adjustment to the new environment, lowering the psychological barrier between their culture and the culture of the recipient country. Also, the problems of racial background and personal standing, which were of equal concern to international students entering a foreign country, should be resolved. Merenkov and Antonova (2015) stated that life in a foreign country often involved talking to people you did not know on the street, in public transportation, in stores, or at the theater. This meant that international students should learn how to act in ways that do not make locals angry. This task was made easier by learning how people talk in public places where you live. The motivation of these pupils to pursue a professional education also influenced the adaptation procedure. Under these conditions, a positive orientation toward active adaptation to studying in such novel conditions may be ineffective. These individuals would view themselves

as victims of circumstance and would be required to reconsider their negative stereotypes. Their limited familiarity with their new country was a factor that made their adaptation period substantially more difficult. They must learn from their mistakes, which are a result of inadequate sociocultural preparation. This invariably leads to conflicts between international students and their groupmates, as well as with locals in public spaces, hospitals, and recreational areas. These students may experience psychological difficulties as they adjust to a new, foreign community's way of life. International students retained the national behavioral patterns they learned in early childhood; these were most evident in their eating practices. Students selected dishes from their respective national cuisines and prepared them using seasonings sent from home. Since they are too expensive, canteens, cafés, and restaurants are not very popular among international students. So that Yan et al. (2022) finding explained that to improve people's social adaptability, the government should actively create conditions, do targeted social adaptation training and active adaptation skills exchange for different social groups, strengthen the social adaptability of different social groups and people of different ages, improve their ability to get resources in social activities, and encourage the accumulation of learning ability and intellectual and physical strength. Zerenkok et al., (2018) findings revealed that participation in recreational activities helped students develop social skills. Participation in leisure activities facilitated socialization, which was essential during the adaptation period.

Therefore, based on the issue of social adaptation in international settings and recommendations from previous research, bringing up the issue of social adaptation was crucial to exposing individual adaptation to different circumstances and evaluating individuals' individuals adaptation to society, mainly international students who studied in Hungary. The objective of the study was to uncover the

social adaptation of international students in Hungary. This study also aimed to contribute to an understanding of how international students adapt to society in Hungary. This study contributed to a broader perspective for international students who want to study in Hungary. It was also viewed as a social adaptation pattern for international students because the institution recognized how international students attempt to adapt in Hungary. Consequently, the current study presents the research question, "How is the social adaptation of international doctoral students in Hungary?"

Method

Study design

This study used a qualitative research design, specifically descriptive research. Sandelowski (2010) stated that qualitative descriptive studies may commence with a theory of the phenomenon under study or a framework for data collection or

analysis. Sandelowski (2000) also stated that qualitative descriptive research stays closer to the data and the surface of words and events.

Participants

It focused on the doctoral students' level in small cases. There were seven international students. The study was conducted in the northern Great Plains of Hungary. The demographical data is shown in Table 1.

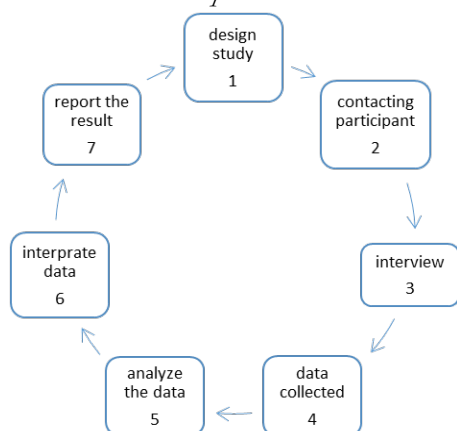
Data collection

To collect the data, instruments would be used. The instrument of the study was a semi-structured interview and demographic data. The language of the interview was English. For interviewing, cell phone recording was used to record all interviews with participants. The data has been collected, and it will be kept confidentially on my personal computer. To collect the data, as shown in Figure 1.

Table 1. Demographic data of participant. Source: Authors.

Students	Age	Gender	Country	Year of study	Marital Status	Occupation	Family in Hungary
Participant 1	35	Male	Indonesia	2021	Married	Civil servant	-
Participant 2	34	Male	Iraq	2019	Married	-	-
Participant 3	32	Female	Myanmar	2021	Single	-	-
Participant 4	25	Female	Uzbekistan	2022	Married	-	Husband
Participant 5	47	Female	Iran	2018	Married	Teacher	daughters
Participant 6	35	Female	Malaysia	2022	Single	-	-
Participant 7	42	Female	Indonesia	2021	Single	-	-

Figure 1. Data collection procedure. Source: Authors.

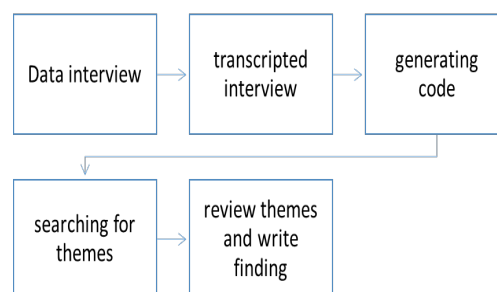


On figure 1, the procedure of the process was that first this study was designed and contacted the doctoral students at the university. After obtaining their permission, we interviewed the participant and gathered the data for the study. The data has been collected, analyzed, and interpreted based on the data. Finally, the data findings reported in this study.

Data Analysis

To analyze the data, this study used thematic analysis. The interview result that had been recorded would be the transcript. The transcript of the interview would be given based on the code. The code has been set and categories created. Braun and Clarke (2006) stated that a theme encapsulated an essential aspect of the data in relation to the research question and represented a pattern of response or meaning within the data set. In this instance, the themes the researcher identified, coded, and analyzed must accurately reflect the entire data set's content. Some depth and complexity must be sacrificed in such an analysis (especially if you are writing a brief dissertation or article with stringent word limits), but a rich overall description is maintained. The theme would be reviewed and defined. After that, the findings of the data presented in the study. In addition, the final finding would be triangulated with the previous study (Figure 2).

Figure 2. Data analysis process. Source: Authors.



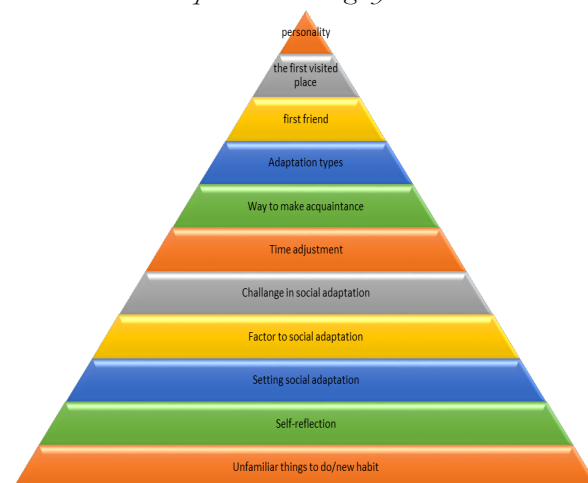
Ethical consideration

To collect data for the study, we gave participants informed consent to obtain their consent to participate in the study. To ensure their information was kept confidential, the names of participants were changed to participant one (P1), two (P2), three (P3), et cetera. It meant that the information will be kept anonymous.

Finding

According to the data, there were eleven categories from the interviews. It is illustrated in figure 3.

Figure 3. Result of interview of international doctoral students' social adaptation in Hungary. Source: Authors.



Personality

According to the findings, most of the participants had an extrovert personality. As participant p4 said: "I am a very cheerful and responsive person. I like to be in the spotlight and make the atmosphere fun with friends (P4, March 20, 2023)". Participant P4 said that she was a cheerful person in her social life; she liked when she was in the spotlight of her friendship and had a fun atmosphere. Similarly, P6 said "I consider myself a socialized extrovert, and I love talking" (P6, March 13, 2023)". There are only two people who define themselves as introverts: P2 and P7. However, all of the participants stated that they were open-minded and easy to adapt to a new environment. P5 said: "Yes, I do, because I think we are living in a world like that. Not being open-minded is not an option, so we need to accept people with all their differences (P5, March 17, 2023)". P6 also said it in a similar way that she said: "Yes, I consider myself an open-minded person because, as I mentioned earlier, I love talking. So when you talk, you meet the New people you love. You love to share your ideas and your mind. So that's why I consider myself open-minded. And I also have so many friends. From many countries, so I can share everything with them (P6, March 13, 2023)". According to the result, it meant that of the international doctoral students who came to study in Hungary, most of them were open-minded and easy to adapt to in a new environment, especially in Hungary.

The First Visited Place

As international doctoral students came to Hungary, there were several places that they visited. They were cities, specifically markets, places of worship, campuses or universities, classrooms, libraries, banks, and departments. The place that they visited because they were interested in learning about the local life and had a tour of the city in Hungary. It aimed to learn how everything worked in Hungary.

First Friend

International doctoral students had an interesting experience when they met their first friend in Hungary. Each of them had a different story when they met their friend; their first friend also came from their own country or Hungary. One of the unique stories from P4 was when she uttered. My first experience making new friends was a meeting in a hostel with students of my course. Everyone brought something to eat for breakfast, and we had a warm conversation around the table, talking about our interests, thereby becoming close (P4, March 20, 2023)". Differently, P7 found that her first friend went to an academic college. She said: „My first friend I got before I arrived, I was looking for someone who had the same supervisor as me, and I found one; she came from Myanmar, and she helped me a lot in my study (P7, March 17, 2023)". Moreover, some of the participants also met their first friend through an arrangement with their colleague, meeting their roommate, or meeting a friend from their own country. From here, they knew the essential places and how to use public transport. We could see that the international students found their way to get friends with different ways. Since they had an extrovert personality, it also indirectly helped them know how to make friends in a new country.

Adaptation Type

Another issue that appears in the categories is adaptation type. Since then, they have come from different countries, which have different cultures, foods, and weather. All of them tried to adapt to life in Hungary. P1 said: "using toilets in Hungary, especially using toilet paper to clean myself. I also needed to get used to not taking a shower every day, especially when the weather was cold (P1, March 31, 2023)". As P1 stated about the toilet in Hungary, all people used toilet paper. In contrast, in his country, people used water. So, he had to adapt his habit of using toilet paper instead.

Moreover, he also said that he needed to adapt to not taking a shower every day. Since then, he has come from a tropical country, Indonesia. The weather was hot, and he took a shower every day. Meanwhile, living in Hungary, where it has four seasons, especially winter, he must adapt to the fact that he does not take a shower every day. Because it was cold. On the one hand, P2 also mentioned the winter season in Hungary. "The winter was long for me; I got used to having winter for less than three months. Staying at home for a long time was difficult. Less meetings with friends and having fewer friends, learning and raising more cultural awareness as I needed to create a wider social network with different backgrounds (P2, March 17, 2023). P2 also stated a similar adaptation type in Hungary. since they were from Asia, so that winter affected him, especially P2. As he stated that he needed to stay at home because the weather was cold, his interaction with his friends was reduced. This situation contrasted with his intention to create a wider social network in Hungary. In addition, the other participant said that another type of adaptation in Hungary was food. P3 said: "Weather and food. This is totally different because I come from an Asian country and the food is really different (P3, March 12, 2023)."

In addition, P5 also made a similar adaptation about food; she uttered: "That's the issue. So yeah, I had to find a way to have the foods that I used to have back home here, and then the weather was very cold for us. Adapting to that was also a challenge. Okay, we use halal food. We do not eat pork, and we have a lot of fruits and vegetables, which are very expensive here (P5, March 17, 2023)". Based on the interview result, for adaptation type, the majority answer from the participant was that they attempted to adapt themselves to Hungary through weather and food.

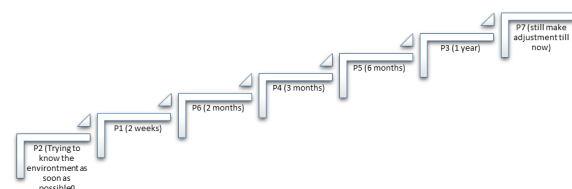
Way to Make Acquaintances

The way participants made new acquaintances

had the same pattern. P1 said that he met new friends through academic activities such as conferences and also through friends from his own country that he met regularly. Interestingly, P2 illustrated that the way to make acquaintances is like the snowballing method. He started to know his friend from his first friend, and he also met new friends at some events. For P3, her friends, whom she mostly met online first and then met in person, P4, P6, and P1 had the same pattern as P1, who met through academic activities. She mentioned that she met him during the lesson. P5 did not have any trouble making new friends in Hungary since she was a social person who liked to talk to people, introduce them, and ask what they were doing. Lastly, P7 met her friend through the Indonesian Students' Association, roommate, school, friend-to-friend, church, and conference. It showed that most of the participants had the same pattern of making acquaintances in Hungary. most of them to make friends through the university's activities. This was normal since they were students who studied at a university in Hungary. It also revealed that they tend to meet new acquaintances from their own country.

Time Adjustment

Figure 4. Time adjustment for international doctoral students in Hungary. Source: Authors.

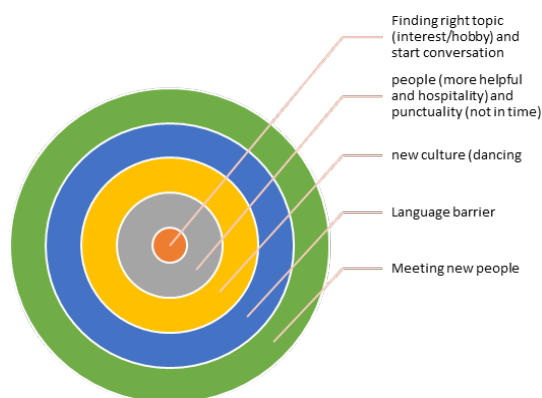


Based on the result, the time adjustment for each participant was different. P2 had a short time to adjust himself in Hungary, as he said that he tried

to adjust himself as soon as possible while arriving in Hungary. As for P1, it took about two weeks. P6 took a little bit longer than two months for her to adjust to life in Hungary. It continued with P4, where she took three months, and P5, who took longer than P4, took about six months to adjust herself. However, for P3, it took about one year, as she answered that it was because of the Corona Virus in 2019 that everyone was not permitted to go out without reason besides their residents. So it took a little longer for her to adjust to Hungary's environment. Unfortunately, for participant P7, it took the longest adjustment compared to the other six participants, as she uttered that since she came to Hungary, she still attempted to make the adjustment to living in Hungary. Obviously, they answered that because Hungary had a different culture, weather, and food. So that she still struggled to adapt herself to living in Hungary.

Challenge Social Adaptation

Figure 5. challenge social adaptation. Source: Authors.



From the data, it revealed that there were some challenges for international doctoral students to adapt to Hungary, as illustrated in figure 5. As statements from P1 and P7 said, finding the right topic for the conversation was a challenge, for example, finding common interests or hobbies to start the conversation. In contrast, P2 said

"Expectations from friends were punctuality. In my culture, there are more expectations from friends when it comes to getting help, for example, and hospitality. On a personal level, punctuality is also very important. But I learned that in some cultures, it is normal if you have an appointment at 2 p.m. and get there at 2:30 or 3 p.m. (P2, March 17, 2023)".

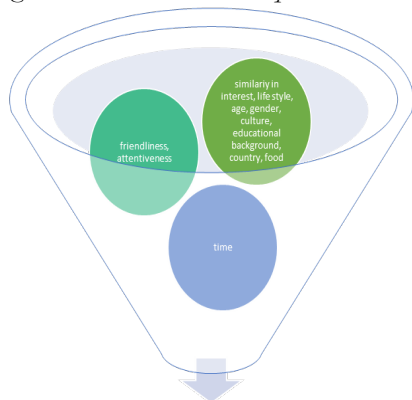
It meant that while studying in Hungary, he met friends who had different cultures from his own. He expected that he would meet people who were helpful and showed hospitality. In addition, he also met people who had different cultures about timing. For example, people who did not come on time in Hungary were a new experience for him, and he needed to adapt to those kinds of people. Moreover, in terms of culture in Hungary, participant 3 found that it was a challenge for her. She said: "I have never danced before, so it's like they are dancing, singing, and drinking. I don't want to drink. I don't want to dance, and I don't. "I don't know how to sing (P3, March 12, 2023)". She had not experienced this in her country. She did not go to a place that made her dance and sing. In Hungary, she came to a place where she needed to sing, drink, and dance. It was a challenge for her because she had not had this experience before in her country. Besides, P5 and P6 face language barriers when they meet new people. P5 stated: "In Hungary, the language barrier is the worst challenge I have ever faced (P5, March 17, 2023)". Since that Hungarian spoke Hungarian and international students spoke English for communicating with each other, language became her challenge while studying in Hungary. This also happened to P6, who said: "The challenge I have as Putin with meeting new people here in Hungary, I'm just scared. First when I meet people, especially the Hungarian people. I am just trying to get closer to them because maybe they do not speak English. And then when I get to know someone close, I love talking, and then I'm afraid that people will get annoyed

with me (P6, March 13, 2023)."

Generally, the challenge for P5 and P6 was the language barrier since they could not speak Hungarian in Hungary. It made them doubt their ability to interact with local people in Hungary. Hence, they could not make their network with local people wider.

Factor to Social Adaptation

Figure 6. Factor to social adaptation. Source: Authors.



It was discovered that for all participants, similarity in interest, lifestyle, age, gender, culture, education background, country, and food became vital to their social adaptation. Finding the similarity could connect international students with people in Hungary. With this similarity, they could build the communication pattern smoothly. Yes, of course. There should be at least. With the same range of okay, age is not important, but I think there should be some something that connects US education interest (P5, March 17, 2023)".

In addition, the friendliness and attentiveness of individuals also became factors in adapting to international students. Since then, they have come alone to Hungary, and it has been foreign for them. They needed to meet an individual who was friendly and attentive toward them to fasten the relationship with them. However, it also found that for P7, the factor contributing to adaptation based

on her view was time. She said: "I don't have any specific consideration when making friends, time will help me to see whether this person can be just an acquaintance, a friend, or my best friend, accepting people as they are (P7, March 17, 2023)". In P7's perspective, she did not have any criteria to decide what factors affected her social adaptation.

Setting Social Adaptation

From the seven participants who voluntarily participated in this study, there were three doctoral students who spent most of their time in the university, two participants spent most of their time in social settings, and two participants said that they balanced their time between the university and social settings. As a statement from P6: "Most of the time I spend my life here in Hungary with my classmate (P6, March 13, 2023)". The reason is that since she came to Hungary to study, she spent most of her time at the university with her classmates. For students who spent most of their time outside of university, they said: "There is a food festival every year; it is a good opportunity to know other cuisines in different parts of the world. Dance and music festivals are regularly held in the city. And in summer there is a big, nice flower carnival in Debrecen (P2, March 17, 2023).

In addition, P4 also said that "Most of my social activities take place in a public environment rather than at the university (P4, March 20, 2023)". Since then, they came to Hungary as international students. Two of the students liked to spend their time in Hungary and attempted to know Hungary's culture more. Moreover, there were two students who managed their time well in university or social settings.

Self -reflection

Since studying in Hungary, there have been different points of view from the participants about their lives as international students. P1 said

that when he first came to Hungary, he thought that it was a foreign country; however, as he lived there for about two years, he considered it his second home. Moreover, P2, P3, and P5 told me that they learned many things from Hungary: they became more patient, flexible, and aware of the diversity of people. In another perspective, P4 and P6 improved themselves a lot in Hungary. P4 said "Comparing myself now to that time when I first came to Hungary, I can say that I have become more confident in communication; I know all the necessary routes and can plan the time for my way correctly (P4, March 20, 2023)". As she said, she became confident in communication and had improved time management during her time in Hungary. Besides, P6 also had differences about her living in Hungary. she uttered: "I considered myself. I'm getting there in terms of physical. I'm getting more fat because here I just eat every day like it's getting colder and colder day by day. So you have to, you know, warm yourself up, so you need to eat. And then, emotionally, I can say that. And I will become stronger because you have to set your mind to the fact that you are alone here. If you're weak, nobody's going to help you. So you have to be strong for yourself (P6, March 13, 2023)". P6 explained that she had made two improvements within herself: physically and emotionally. This changed perspective cannot be found in P7 because she felt the differences within herself while living in Hungary.

New Habit/Unfamiliar Things

It was interesting to find many unfamiliar and new habits among the international doctoral students in Hungary. Each of them had different responses toward their adaptation in Hungary. The new habits and familiar things to do in Hungary are shown in Figure 7.

As a student who came from Asian countries, P2 mentioned that he liked to travel. Since he was living in Hungary, he used to travel to other

countries because Hungary was a Schengen member, so he did not need a visa to visit another country within Europe, and he took this chance to travel more. As he said: "I used to travel more between cities. In Hungary, I try to travel to other countries as I have a better chance to travel without visa issues (P2, March 17, 2023)".

Figure 7. New Habit and Unfamiliar things in Hungary. Source: Authors.



Moreover, P3 felt unfamiliar with the culture in Hungary. If she compared it with her home country, it was not safe for a woman to go outside in the night. So she did not prefer to go out at night, and in terms of clubs, she also never went to a club in her home country. Nevertheless, in Hungary, it was safe, and she could go to the club. She uttered: "

Going out at night, I never go to clubs. We have clubs. And here we have clubs, but I never go to clubs. Uh, what I mean is, it's not safe. It's not favorable. It's not good to go outside at night after 5:00 PM; I don't go outside. (P3, March 12, 2023)".

It was also an interesting experience for P5. She mentioned that she never went to higher education in her home country, Iran. Living in Hungary, she grabbed her chance to study. She informed: "I didn't go to a university there (in my home country) (P5, March 17, 2023)". A unique experience for P6 since she studied in Hungary. P6

explained: "In my country. Using a bicycle to travel from one location to another was not a common occurrence in Malaysia, my home country, but it did occur here. Wherever you wanted to go, you needed to use a bicycle. Or you can just walk in or take the tram. So, a bicycle is something that I did not really use in Malaysia, except if I wanted to, you know, have some free time to exercise. When I had free time, the people went to work with the bike seeker, and then they wanted to go anywhere with the bicycle. But it's not normal. It's not something that's normal in Malaysia. (P6, March 13, 2023)

As a Malaysian, bicycles were not common in her country. She found out that there were many bicycles in Hungary. People liked to use it, and she also decided to use a bicycle like people in Hungary. As a country located in Europe, Hungary has four seasons. For an Asian who lived in two seasons, only P7 felt unfamiliar that she had to wear more than two layers of clothes and a thick jacket. In addition, she also started to wear short skirts. She mentioned: "When wearing more than two clothes at once, take a very thick jacket and wear a short skirt (P7, March 17, 2023)".

However, for P4, she did not see any difference from what she encountered when she lived in Hungary. It was because she came from central Asia that it had differences from other Asian countries such as Malaysia and Myanmar. If P7 from Indonesia and P4 who came from Uzbekistan compared seasons, P4 had no difference in experience since Uzbekistan had a winter season, so she used to wear thick jackets and layers of clothes.

Discussion

This research on social adaptation aimed to reveal how doctoral international students adapt to their social lives in Hungary. It showed that there were many aspects that they had to learn when they first arrived in Hungary. As the study findings revealed, all of the participants were open-minded

and ready to socialize with people in Hungary. Nevertheless, there were some challenges and unfamiliar activities that they had to do because they had never existed in their home country. Time adjustment and factors that helped international doctoral students improve their socialization in Hungary showed a different pattern, except for finding the first friend and acquaintances. Since they were international students who aimed to study in Hungary, they mostly encountered colleagues in university activities such as classrooms, conferences, or roommates in the dormitory. This pattern was commonly observed among international students, as they gained access to resources that were previously unavailable to them. It was found that, based on their personalities, all of the participants were open-minded and easy to adapt to in Hungary.

For international students who study in Hungary, it is pivotal for them to find a place that will help them adjust rapidly. They could learn how to fulfill their daily necessities, such as a market for buying daily groceries, a place of worship for their religious activity, a bank for saving their money, and a university for classes, departments, and libraries. This finding is in agreement with Alasmari's (2023) finding that numerous international students had favorable impressions of the facilities and services provided to meet their daily requirements. Besides, they also needed to find new acquaintances; all of the participants had different stories. Even so, most of them met their first friend and followed the same pattern to make acquaintances, such as arranging a meeting with their colleague, meeting their roommate, or meeting a friend from their own country. Since they were all students, most of their acquaintances came from university and home country friends.

Due to cultural and geographical differences, all of the participants had to overcome Hungary's differences in weather, food, and culture. The findings showed that the food in Hungary was

different from that in their home country in terms of culture and weather. For example, for P1, it was difficult to adjust because in P1's home country, toilets used water, whereas in Hungary, they used toilet paper. During the winter, also because the weather was cold, P1 needed to adjust his shower time. As food was different in their home country, international students needed to adapt to food and taste. In addition, the vegetables in Hungary were also expensive for the participants, and for Muslim students, it was difficult to find halal food. This finding was in accordance with Wu et al. (2015), who found that the participants encountered culture shock due to different types of beliefs and value systems. They had to adapt to various value systems, communication patterns, signs and symbols of social contact, and interpersonal relationship patterns upon entering a new culture. From international doctoral students who experience differences compared to their home country. As a result, they needed to adjust their habitual activities while living in Hungary.

Based on the findings, the adjustment times of the international students were different. These differences could be explained by students' stress during their social adaptation. Paudel (2021) reported that culture shock-related obstacles may contribute to stress, and these factors may ultimately result in a lower level of college adjustment for these students. Coping with their stress during the adaptation period takes different times for each individual. According to the findings, one of the challenges for social adaptation was the language barrier. This finding is in line with Pustarnakova's et al.'s (2020) statement that the major problem for international students was the language barrier; 58% of students mentioned this problem. From the result, it showed that international students' doctoral students did not expect these challenges; in contrast, they acknowledged that they were not ready before coming to Hungary, but they had to encounter them. Hussain and Shen (2019) revealed

that readiness plays a significant role in international students' ability to balance challenges and support. International students in a new culture and academic environment are frequently confronted with a variety of strange and unfavorable situations. In other words, when international doctoral students are ready to prepare themselves to encounter many challenges and problems in their social adaptation in Hungary, it has a chance to decrease students' culture shock and increase students' adaptation rapidly. The factor of social adaptation is also found in this study. In order to increase social adaptation, friendliness and attentiveness were important in many aspects and over time. This finding also meant that when someone was friendly toward international students, it was easy to make friends and build a network, and when the similarity in aspects of gender, age, and culture became the factor that would enhance the adaptation, it would increase international students' comfort with their friends. During this time, they would adapt their social lives completely.

Based on the findings, we also discovered that most international doctoral students spend most of their time at the university. Two of them attempt to balance their time, whether in university or social life. Studying in Hungary, international students obtain positive benefits such as becoming more patient, flexible, and aware of the diversity of people. They also improved themselves a lot in Hungary. This finding is the same as that of Stebleton et al. (2013), who found that participation in all study abroad opportunities correlate positively with the development of linguistic and cultural competence in a second language among students. Asian students reported greater gains in comprehension of the complexities of global issues, application of disciplinary knowledge in a global context, and linguistic and cultural competence in another language, but fewer gains in confidence working with individuals of other cultures. International doctoral students could broaden their point

of view about culture because they would meet another international student from many countries and local people from Hungary, so that they would be more aware of multiculturalism.

Furthermore, the findings showed that there were some unfamiliar things to do for international students who study in Hungary. They were palinka and beer barriers; this was not one of them because this product was only produced in Hungary, so international students did not have any access to consume this product. However, this product still became a new item for international students. For travel, it was difficult for Asian students because if an individual came from a certain country and the country that an individual wanted to visit required a visa to enter the country, Asian students who studied in Hungary knew that as members of Schengen countries, it was a privilege to visit a country in Europe without any visa. The participant's home country also has a national stereotype that they do not allow women to go out at night and go to the club. Since they study in Hungary, there is no such rule as in their home country. Moreover, due to transportation and weather, international doctoral students also found out that cycling was normal and that wearing more than one coat was necessary during the winter to prevent cold weather. For Asian students, who tend to be dependent on public or private transport in their home country, going out with a bicycle was rare, and wearing more than one cloth was hot for them, who always had two seasons, rainy and dry. This report, in accordance with Sobkowiak (2019), revealed that the students' perspectives on life in a particular foreign culture were relatively conciliatory and rational. Moreover, their accounts were dominated by favorable attitudes toward foreign cultures. Several countries, such as Belgium, France, Portugal, and Italy, have a completely different meal schedule, with dinner being the primary meal served in the evening. Coffee drinking has also become a ritual in Italy. This may have been due to

the fact that their access to the lives of locals was restricted to casual encounters in public locations, allowing for only superficial observations. In addition, the majority of students studied in cities with a substantial tourist influx, which also influenced, blurred, and distorted the landscape. Individuals believed that everyone was fundamentally the same, and differences were acknowledged but minimized and deemed insignificant in comparison to cultural similarities. However, their reports were filled with culture-specific generalizations and stereotypes. Contact with international students increased the study participants' awareness of diversity, which should facilitate their future cultural sensitivity.

Conclusion

Social adaptation is an issue that is essential in the higher education sector, especially for international students. Based on the findings, international students were aware of how to adapt to a new environment. Hence, they had different patterns to develop their adaptation. It was found that international doctoral students had distinctive ways to accept a new friend, place, and time. Nevertheless, challenge and the factor of adapting were general factors that people would encounter, not only students but also people they were not. The remarkable finding that could be found in this study was that it was a new habit and an unfamiliar activity for international students. This was an unfamiliar activity that they never did in their home country, but they did it in Hungary. The reason was because Hungary was located in Europe, which had four seasons and a different system and value. For international doctoral students, all of whom were from Asian countries, there were huge differences. In short, international doctoral students' social adaptation in Hungary was something they knew how to handle when they arrived in Hungary. Even though it took different times for them to

adjust to living in Hungary, they knew how to adapt to their new environment. This insight was essential for international students who wanted to pursue their studies abroad, especially in Hungary. It was also a good solution for the institution to know the pattern of students' social adaptation in order to help international students adapt during their study in Hungary, with expectations that this would help students performance in the classroom.

Reference

- Alasmari, A. A. (2023). Challenges and social adaptation of international students in Saudi Arabia. *Heliyon*, 9(5). e16283. DOI [10.1016/j.heliyon.2023.e16283](https://doi.org/10.1016/j.heliyon.2023.e16283)
- AlZboon, S. O. (2013). Social adaptation and its relationship to achievement motivation among high school students in Jordan. *International Education Studies*, 6(10), 63–69. DOI [10.5539/ies.v6n10p63](https://doi.org/10.5539/ies.v6n10p63)
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. DOI [10.1191/1478088706qp063oa](https://doi.org/10.1191/1478088706qp063oa)
- Hussain, M., & Shen, H. (2019). A study on academic adaptation of international students in China. *Higher Education Studies*, 9(4), 80–91. DOI [10.5539/hes.v9n4p80](https://doi.org/10.5539/hes.v9n4p80)
- Makeeva, E., Kulinich, M., & Yakovleva, I. (2022). Adaptation of International Students: Challenges and Solutions. *Journal of Intercultural Communication*, 21(3), 41–54. DOI [10.36923/jicc.v21i3.20](https://doi.org/10.36923/jicc.v21i3.20)
- Merenkov, A., & Antonova, N. (2015). Problems of social adaptation of international students in Russia. *New Educational Review*, 41(3), 122–132. DOI [10.15804/ner.2015.41.3.10](https://doi.org/10.15804/ner.2015.41.3.10)
- Misra, R., & Castillo, L. G. (2004). Academic stress among college students: Comparison of American and international students. *International Journal of Stress Management*, 11(2), 132–148. DOI [10.1037/1072-5245.11.2.132](https://doi.org/10.1037/1072-5245.11.2.132)
- Paudel, K. P. (2021). Level of academic performance among faculty members in the context of Nepali higher educational institution. *Journal of Comparative & International Higher Education*, 13(2), 98–111. DOI [10.32674/jcihe.v13i2.2450](https://doi.org/10.32674/jcihe.v13i2.2450)
- Pustarnakova, A., Vandysheva, L., & Mitrofanova, S. (2020). Social Adaptation of Foreign Students in Higher Educational Institutions (Case of Samara University). *Advance in Social Science, Education and Humanities Research*, 392, 185–188. DOI [10.2991/assehr.k.200113.037](https://doi.org/10.2991/assehr.k.200113.037)
- Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing and Health*, 23(4), 334–340. DOI [10.1002/1098-240x\(200008\)23:4<334::aid-nur9>3.0.co;2-g](https://doi.org/10.1002/1098-240x(200008)23:4<334::aid-nur9>3.0.co;2-g)
- Sandelowski, M. (2010). What's in a name? qualitative description revisited. *Research in Nursing and Health*, 33(1), 77–84. DOI [10.1002/nur.20362](https://doi.org/10.1002/nur.20362)
- Sobkowiak, P. (2019). The impact of studying abroad on students' intercultural competence: an interview study. *Studies in Second Language Learning and Teaching*, 9(4), 681–710. DOI [10.14746/ssllt.2019.9.4.6](https://doi.org/10.14746/ssllt.2019.9.4.6)
- Stebleton, M. J., Soria, K. M., & Cherney, B. T. (2013). The high impact of education abroad: college students' engagement in international experiences and the development of intercultural competencies. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 22(1), 1–24. DOI [10.36366/frontiers.v22i1.316](https://doi.org/10.36366/frontiers.v22i1.316)
- Terziev, V. (2019b). Social adaptation as an element of social policy. *IJASOS-International E-Journal of Advances in Social Sciences*, 5(13), 275–282.
- Vershinina, T. S., & Kocheva, O. L. (2015). Adaptation of foreign students to the foreign culture learning environment using the Six Thinking Hats method. *International Education Studies*, 8(6), 124–131. DOI [10.5539/ies.v8n6p124](https://doi.org/10.5539/ies.v8n6p124)
- Wu, H., Garza, E., & Guzman, N. (2015). International student's challenge and adjustment

to college. *Education Research International*, 2015, 1–9. DOI [10.1155/2015/202753](https://doi.org/10.1155/2015/202753)

Yan, S., Li, X., & Yan, T. (2022). The impact of the social adaptability of different groups on the human capital level in an uncertain environment: Panel data analysis based on 35 urban life satisfaction. *Frontiers in Psychology*, 13(990941), 1–9. DOI [10.3389/fpsyg.2022.990941](https://doi.org/10.3389/fpsyg.2022.990941)

Zerengok, D., Guzel, P., & Ozbey, S. (2018). The Impact of leisure participation on social adaptation of international students. *Journal of Education and Training Studies*, 6(2), 1–9. DOI [10.11114/jets.v6i2.2680](https://doi.org/10.11114/jets.v6i2.2680)

Appendix

Unveiling international doctoral students' social adaptation in Hungary

Based on the literature review, the investigator creates interview guidelines that are not limited to the following questions.

A. Reflection before coming to Hungary

- Tell me about your personality
- Are you consider yourself an open-minded person? Why?
- Are you someone who can adapt to a new environment?

B. Social community in Hungary

- What did you do when the first time you came to Hungary?
- Give me an example of your experience with your first friends in Hungary.
- Tell me about what things you attempt to adapt when arriving in Hungary.
- How did you make new friends during your study in Hungary?
- What element are you considering for your social adaptation?
- How long can you adjust yourself to a new environment?
- What is a challenge you have experienced when meeting new people?
- What is the factor that makes it easier to socialize?
- Tell me about most of your social activities in which environment, university or social?

C. Self-reflection

- How do you compare yourself to the first time you came to Hungary and now?
- Tell me about something you did in your home country, which you did in Hungary.

THE IMPLEMENTATION OF WALDORF EDUCATION IN INDONESIA AT A GLANCE

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Abstract

In the education world, Waldorf education exists in some countries. Waldorf education revitalized the Indonesian education issue to improve individual well-being. This study reviews Waldorf education in Indonesia. We collected data via online content analysis focused on the Waldorf school website and Facebook. It was reported that Waldorf education only exists in big cities such as Jakarta, Bandung, Yogyakarta, Balikpapan, and Bali. All Waldorf education in Indonesia only offered play gardens, except Arunika Waldorf and Madu Waldorf, which offer an elementary school. All of the websites from Jagat Alit, Arunika, Bambino Preschool, Madu Waldorf, and Kulila Playgroup provide all the information about their school. However, for Denia Beun Play Garden, the information was mostly updated on their Facebook account. The implementation of Waldorf philosophy was well implemented in all schools. The adjustment point only on cultures because of the differences between Europe culture and Indonesian culture.

Keywords: Waldorf Education, Waldorf Education in Indonesia, Waldorf Curriculum

Discipline: pedagogy

Absztrakt

ÁTTEKINTÉS AZ INDONÉZIÁBAN MEGVALÓSULÓ WALDORF PEDAGÓGIÁRÓL

Az oktatás világában számos országban létezik Waldorf-oktatás. A Waldorf pedagógia új lendületet adott az indonéz oktatási szemléletnek. A tanulmány a Waldorf pedagógiát tekinti át Indonéziában. Az adatokat online tartalomelemzéssel gyűjtöttük, a Waldorf iskolák weboldalára és a Facebookra összpontosítva. A Waldorf pedagógia csak olyan nagyvárosokban létezik, mint Jakarta, Bandung, Yogyakarta, Balikpapan és

Bali. Indonéziában a Waldorf pedagógia többségében kora gyermekkori intézményekben vannak jelen, kivéve az Arunika Waldorf és Madu Waldorf általános iskolák. A Jagat Alit, az Arunika, a Bambino, a Madu Waldorf és a Kulila óvodák weboldalai minden információt tartalmaznak az intézményekről. A Denia Beun óvoda esetében azonban a szükséges információ az intézmény Facebook oldalán található. A Waldorf-filozófia szemléletét minden iskolában sikeresen megvalósították. Az eltérés a Waldorf pedagógia értelmezésében az európai kultúra és az indonéz kultúra közötti különbségekkel magyarázható.

Kulcsszavak: Waldorf oktatás, Waldorf oktatás Indonéziában, Waldorf tanterv

Diszciplína: neveléstudomány

Introduction

Education was one of the pivotal components of the country in the world. The education system in every country was implemented based on the needs of the country. For example, Indonesia was led by the Ministry of National Education and Culture, abbreviated as Kemendikbud (Chazan, 2021). However, the Curriculum in Indonesia has been reformed many times according to educational needs. The Curriculum could improve some things regarding the education system in Indonesia. From an academic perspective, education was evaluated based on scores. However, on the other hand, education should balance well- the students too. The current president, Joko Widodo (2019-2024), also had a vision that education can develop more well-being of an individual. To flourish, Indonesia requires a good system of education that improves the well-being of inhabitants, increases human capital, and helps it attain economic and political aims. To realize the president's vision, a fundamental transformation in the education and training system is required to fulfil its promise, enable the country's full involvement in the fourth industrial revolution, and ensure that Indonesia maximizes its demographic dividend (The World Bank, 2020). To achieve this, Indonesia must implement some changes or adopt another system of Curriculum. Concerning increasing individual well-being, Waldorf education offered to become one

of the problems solving to achieve President Joko Widodo's vision for Indonesia. Waldorf education was something familiar from an education perspective. Waldorf education had spread over the world and was founded by Rudolf Steiner. Rudolf Steiner published *The Threefold Social Order* in 1919. It was a book about an approach to political and social renewal aimed at constructing a society ravaged by World War I (WWI) turbulence. It was hijacked by expanding materialism, and scientific rationalist thought. Steiner argued that individuals chaotically combined these threefold social order elements in modern times.

Moreover, he thought individuals could achieve social order by building a Threefold Commonwealth. The book and lectures given by Steiner on this subject made a big impression in Europe. The three elements that he mentioned are about the social organism. Those elements were related to universal ideals of liberty (cultural, intellectual, and religious freedom), equality (political freedom and legal rights), and fraternity (the right to work creatively). This framework was a novel approach founded on the tripartite essence of the human being. It shows thinking, feeling, and willingness. It was manifested in the well-known image of the developing child as a trinity of brain, heart, and hands in Steiner Education. Comprehension of human organisms may mirror or comprehend the form of the social organism (Stehlik, 2019).

In addition, regarding the development of Waldorf education in Europe, Europe was the major presence on world maps of Waldorf/Steiner education, and Germany was dominant in Europe. There were 12 Waldorf kindergartens for every 20 in the world. Waldorf schools are popular in practically every country. The number of kindergartens outnumbers the number of schools Paull & Hennig (2020).

However, the question was how the implementation of Waldorf education in Indonesia. Therefore, this study attempted to elaborate on Waldorf education implementation in Indonesia. This study aimed to discuss Waldorf education and its implementation in Indonesian schools and promote Waldorf education in Indonesia.

Method

This study used a qualitative approach. The method that we used was online content analysis. The data was collected from Waldorf education websites and text chat interviews. We collected data through their description of the school, curriculum, and program offered. For a Waldorf school that did not provide much information, we used social media such as Facebook and Instagram to obtain information.

In addition, we contacted each Waldorf school to obtain more information about their school. We conducted a text chat interview via email and WhatsApp. Text chat interviews were used because of time differences between Hungary and Indonesia, and teachers needed time to prepare the answers. The language used during the interview was Bahasa Indonesia. There were Waldorf schools that also used English, for example, Madu Waldorf in Bali, because they communicated using English and only partly spoke Bahasa Indonesia. Interlanguage can be changed depending on whether the school uses Bahasa Indonesia or English as its primary communication language. After interviewing the teacher from school, all of

the data and audio were kept on the computer. The procedure of data collection is illustrated in Figure 1. and Figure 2.

Figure 1. Collecting data from the websites of Waldorf School in Indonesia. Source: Authors.

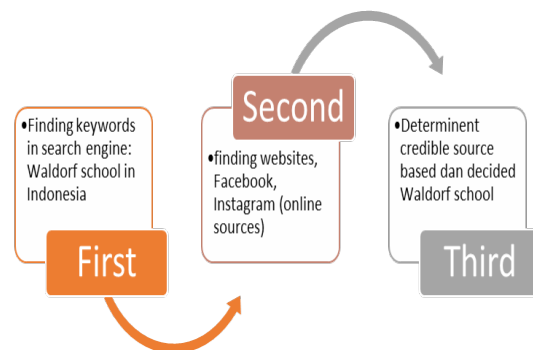
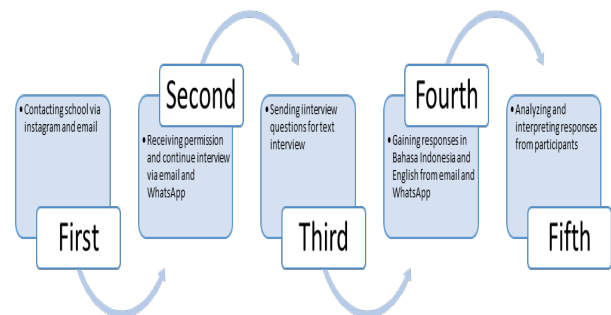


Figure 2. Process of collecting data for interviewing. Source: Authors.



From Table 1. There was information about the interview for the study. The participants used pseudonym name to protect their data. The discussion for each school was different; four schools used WhatsApp to interview, and two preferred to respond via email. All of the schools agreed to do the interview.

Table 1. Interview at Waldorf school. Source: Authors.

N	School	Media interview	Interview	Language
1	Jagad Alit	Email	Yes	Bahasa Indonesia
2	Arunika Waldorf	WhatsApp	Yes	Bahasa Indonesia
3	Bambino Preschool	WhatsApp	No further response	English
4	Madu Waldorf	Email	Yes	English
5	Kulila Playgroup	WhatsApp	Yes	Bahasa Indonesia
6	Denia Buen Playgroup	WhatsApp	Yes	Bahasa Indonesia

Bambino Preschool had contacted and approved for discussion, however, there were no further responses on the text interview. However, we could still find information about the school on its websites. For the result of data from an interview that used Bahasa Indonesia, we translated their interview into English by myself to make it easier to understand.

Result

. Waldorf School in Indonesia is shown in table 2.

Table 2. Waldorf education in Indonesia. Source: Authors.

Waldorf Education Name	Location
Jagad Alit	Bandung
Arunika Waldorf	Bandung
Bambino Preschool	Jakarta
Madu Waldorf	Bali
Kulila Playgroup	Jogyakarta
Denia Buen Play Garden	Balikpapan

The development of Waldorf education in Indonesia started at Jagad Alit School in Bandung. Wildensyah (2019) stated that beginning in 2013, a group of alternative education activists in Bandung established a learning community that undertakes Waldorf Education studies and activities. This

neighbourhood employed the Waldorf educational philosophy in Bandung's alternative schools. Throughout the process, this community consistently offered training events and public presentations on Waldorf education. Waldorf School teachers from nations like Germany, the United States, Switzerland, and others carried out this project. Participants included educators, parents, and advocates for alternative education who were interested in the educational philosophy of Waldorf schools. The first group of Grade School Teacher Training was held in Bandung due to the Waldorf School's gradual expansion, fueled by the abovementioned enthusiasm. Participants from all backgrounds and locations strengthened the seeds of the presence of the Waldorf School.

There was Jagad Alit Waldorf, who specialized in early childhood. Jagad Alit Waldorf has been doing well over the previous three years. After Arunika Waldorf in Bandung, the Madu Waldorf was established in Bali as the precursor to the Bali Waldorf School. Waldorf School Initiatives had already started appearing in numerous locations, such as Jakarta. Waldorf Jakarta was present with activities such as organizing study groups and workshops. In Yogyakarta, there was Kulila Waldorf at the early childhood level. The Waldorf study group in Balikpapan has hosted parenting events and workshops for parents and teachers. Waldorf schools in Indonesia are a breath of fresh air for alternative education. Waldorf education in Indonesia was located in Jakarta, Bandung, Jogyakarta, Balikpapan and Bali

Jagad Alit

Jagad Alit School was located in Bandung, Indonesia. Jagad Ali's website <http://jagadalitschool.blogspot.com>, states that Jagad Alit - Waldorf School was a Playgroup and Kindergarten that integrated the Waldorf educational philosophy into Indonesian cultural values and regional customs. The foundation of the Waldorf educational

philosophy was education that was offered through the hands, heart, and head to the three aspects/parts of human beings (three folds of a human being), namely willing, feeling, and reasoning (head). The Jagad Alit-Waldorf School adheres to the belief that science, spirituality, and the arts should not be separated into their respective fields. The curriculum was as comprehensive as time permits, balancing academic courses with creative and practical activities. The flow of the day presented the curriculum and enlivened each subject with poetry, storytelling, art, handiwork (crocheting, knitting, rudimentary sewing, wood-working), or drama. Therefore, academic education was usually coupled with artistic, rhythmic, and practical labour. Handwork and fine arts challenges were not viewed as distinct, insignificant possibilities but as essential components of a well-rounded education (Jagad Ali, n.d.). According to their Instagram account, namely jagadalitwaldorf_playkinder (<https://www.instagram.com/p/-BjcVwC9AKku/>), the criteria for students who could enrol in Jagad Alit Waldorf is age 3 to 6 or 7.

According to their website <http://jagadalit-school.blogspot.com>, there were some programs at Jagad Alit Waldorf School, as illustrated in Figure 3.

Figure 3. Activities in Jagad Alit Waldorf School.
Source: Authors.



Rhythm was activated for daily activity from 7.50 a.m. to 10.45 a.m. The activity started with outdoor free play. After playing, students organized toys, cleaned, and did a morning circle. Around 9 a.m., students prepared a snack together and continued with indoor free play and arts and crafts activities. Next, they would organize their toys and enjoy their snack. Then, students prepared their bags and joined in storytelling, around 10.40 to 10.45, they got ready to go home. In addition, Jagad Alit also had *Klab Anak Rabu* activity. This activity means that Jagad Alit students could gather with their parents every Wednesday. For storytelling, the student would listen to the teacher tell the story.

Further, the activities included free play, circle time, storytelling, and crafts for parents. Another activity was free to play. Free play was defined as unsupervised independent play for students. Simple toys were provided for students to explore and build their imaginations. A piece of cloth such as silk, cotton, wool, or another natural was provided for students.

We interviewed Kelly, who was a teacher at Jagad Alit. Kelly explained that Jagad Alit promoted itself online, where it shared information about its activities or events. In addition, Jagad Alit promoted their program through word-of-mouth promotion, study groups, and community building. They also established a parenting program to “educate” parents and build communities. Jagadish Alit also attempted to involve parents in their activities as much as possible, such as through study groups, parent meetings, one day with a parent, celebrations, child study, et cetera. For curriculum, they adopted the Waldorf philosophy, which was the basis of their school. Jagadish Alit modified local culture and geography, particularly for celebrations and festivals and the use of local materials.

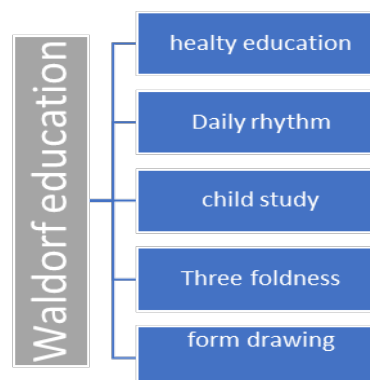
Regarding religion, they did not focus on each student’s beliefs. However, religion was still essential to instil in students a sense of wonder and gratitude. In Jagad Alit, all of the teachers were

Indonesian. One of them graduated from Waldorf training. Three were studying at the training, and two had yet to take Waldorf training. Jagad Alit also collaborated with another school that joined the Indonesia Waldorf Steiner Association.

Arunika Waldorf

According to their website at <https://arunika-waldorf.wordpress.com>, Arunika Waldorf was located in Bandung. This school was an independent school, which was not bound or dependent on certain organizations/groups/people, so they were free to design education according to the growth and development of children - but still referred to and adapted to the Republic of Indonesia's National Curriculum, where children are the primary subject and focus; not for the benefit of schools, foundations, teachers, or parents. In addition, they mixed local (Sundanese) cultural features and flavours into the learning process. Since 2017, preparations have been made for opening the first Waldorf Elementary School in Indonesia, a school based on the notion of human growth and development as spiritual beings in a balanced material world. Characteristics of Arunika's learning are: prioritize cooperation, not competition. One instructor oversaw grades one through six; art, music, and craft were included in the curriculum, and the entirety of science, art, and spirituality was conveyed to matter. The subject was conveyed through stories (storytelling) using a Waldorf-style storytelling technique, it used no fixed texts or guides, exceptional learning rhythm: main lesson block (one lesson is studied for 3-6 weeks), the cultural, social, and environmental integrity of each lesson and it was an inclusive institution. Arunika's educational characteristics are seen in Figure 4. In Figure 4, as a Waldorf school, Arunika wants a healthy school that brings its supportive community and students on a healthy path. Arunika, being a Waldorf school, always promoted a balanced and harmonious learning process between will, emotion, and reason.

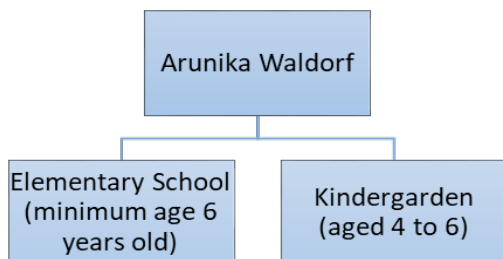
Figure 4. Education in Arunika Waldorf. Source: Authors.



Waldorf education also employed a learning rhythm that was in sync with natural rhythms, such as the rhythm of breathing and the cycle of day and night, so that the learning process was healthy. Child study or study of children on each child, in which the child's condition, developmental situation, physical abilities, will, sense and mind, difficulties and natural talents, challenges and things that provoked them into the detailed discussion for teachers to determine what they can or must do to support the child's learning journey. The threefoldness was balancing all of its elements (both body, soul, and spirit/spirit as well as intention, taste, and mind) so that one could avoid becoming a one-sided human being and even use all of one's elements in a balanced manner in the future. Moreover, drawing without using tools (freehand drawing) taught youngsters appropriate posture and direction and how to seek and develop endurance in their souls. Furthermore, there were two types of schools at Arunika Waldorf, as shown in Figure 5.

According to their website at <https://arunika-waldorf.wordpress.com>, Arunika Waldorf opened the elementary school and kindergarten levels of education. They only stated that the minimum age for students in elementary school was six years old.

Figure 5. Type of education in Arunika Waldorf.
Source: Authors.



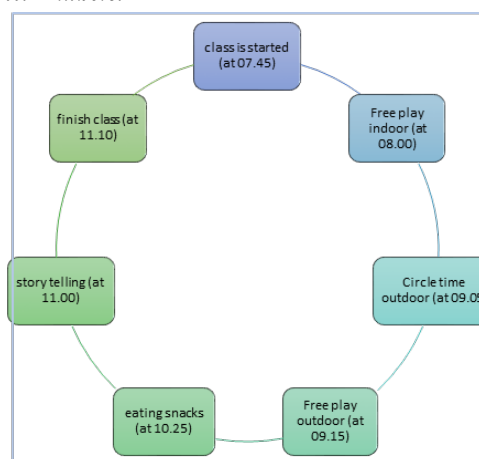
However, there needed to be more detail about this. On the page, there was only the procedure for parents who want to enrol their child in this school. On the kindergarden enrollment page, there was information about fee contributions. There was detailed information about the method used by Arunika Waldorf School and how Arunika Waldorf encourages students to connect with nature through activities like exploring natural resources, taking nature walks, and gardening. It stated that Arunika Waldorf provides students with toys that have open-ended characteristics and provide learning through storytelling. Moreover, on the page, detailed information was also provided about the schedule for students, as shown in Figure 6.

According to the interview, Nindi, a teacher at Arunika Waldorf, said they used online media to promote their school. They shared stories about health and studying styles on social media. However, due to the student quota, this is frequently done. For offline promotion, they held an open house for prospective students' parents to see more about Arunika Waldorf School teaching and learning at school, for parents program was part of the school agenda at school and home. A curriculum based on Waldorf education gave educators the freedom to design education based on local needs and culture. Language and the national curriculum, according to Arunika Waldorf, were the factors that necessitated curriculum changes.

Regarding religion, Arunika followed the

instruction of the education authority that religious information was required for student enrollment. However, it did not influence on students education. Arunika's Waldorf teacher had an educational background in Waldorf education. However, some were also enrolled in Waldorf training, while others had not been able to train. They had not collaborated with any Waldorf school in Indonesia for the collaboration program.

Figure 6. Schedule of students at Arunika Waldorf.
Source: Authors.



Bambino Preschool

Bambino Preschool was located in South Jakarta. The founder was Mrs. Ok Kyung Kim. Based on Bambino Preschool's website: <https://www.bambinopreschool.com>, Bambino Preschool was founded in 1997 as an independent and private learning institution. It was well-known for its excellent reputation in Early Childhood Education foundation-building. The first Bambino centre was located in South Jakarta. As an educational institution, Bambino played a crucial role in establishing a setting that not only stimulated these potentials intellectually but also encouraged children to use their abilities and skills while interacting with their environment and other people.

The curriculum of this Bambino preschool was unique. Bambino Preschool states that each kid is a unique individual with unique potential. As a school, they strove to provide learning experiences that allowed children to develop at their own rate. The children are guided through a comprehensive curriculum based on the Montessori, Waldorf, and Reggio Emilia pedagogies, with the assistance of committed, experienced, and enthusiastic educators. Children were encouraged to engage in meaningful play, project-based learning, and basic academic activities, which were crucial for developing a well-rounded, lifelong learner (Bambino Preschool, n.d.)

Bambino Preschool website (n.d.) stated that the application of creative activities such as storytelling, singing, drawing, painting, rhythmic games,

and modelling to support the healthy development of imagination and creativity was one of the Waldorf Educational Principle's Fundamental Characteristics. Music, arts & crafts, dramatic play, and creative movement were daily activities in Bambino. In addition, they were encouraged to engage in meaningful, practical activities, such as cooking, baking, and gardening, emphasizing the processes rather than the learning outcomes. Character Education was also introduced in the early years using successful methods such as storytelling, mini-drama, puppet shows, games, and music and movement. In addition, for classes, there were five-morning classes for Bambino. Toddler, Pre-Kindergarten, Kindergarten 1, Kindergarten 2, and Kelas Bermain with a low teacher-student ratio.

Table 3. Programs in Bambino (source: <https://www.bambinopreschool.com/>)

Program in Bambino	
The "Toddler" program provided children with an environment conducive to play-based learning. At Bambino, children would be encouraged to explore a variety of games and activities, including tabletop games, arts & crafts, and outdoor play.	Toddler Classes A: 1.5 to 2 years old and B: 2 to 3 years old
During this time, children would be introduced to imaginative play and began to express themselves freely.	Pre-Kindergarten: 3 to 4 Years old
The literary and mathematical fundamentals were established. To guarantee a solid grasp of numbers, letters, and words, some repetitious assignments and chores will be assigned. The children will also engage in activities that emphasise aspects of growth, such as imaginative play, time passing, and social development.	4-5 years old Enroll in Kindergarten 1
The students would use simple tools to tackle real-world situations. The supplied activities will seek to improve the children's abilities to read, comprehend, and produce words. In addition, they will be exposed to a variety of mathematical challenges designed to develop their logical and analytic skills in preparation for a seamless transition into first grade.	Kindergarten 2 Class: 5 - 6 Years old
Students involved in self-selected activities in groups. The activities were arts and crafts, music, and circle time. The language was Bahasa Indonesia.	Kelas Bermain (playing class) 2 to 4 years old
In this program, there were arts and crafts, baby gymnastics and music and games.	Mother with baby aged 9 to 17 months.

Madu Waldorf

Madu Waldorf was located in Bali, Indonesia. Based on their website at <https://waldorfbali.com>, they had around sixty students and fifteen teaching staff. In 2016, Madu Waldorf was established. The majority of teachers were Balinese and were trained in Waldorf pedagogy so that they could impart a uniquely Balinese flavour to our school. Instruction was provided primarily in English and somewhat in Indonesian.

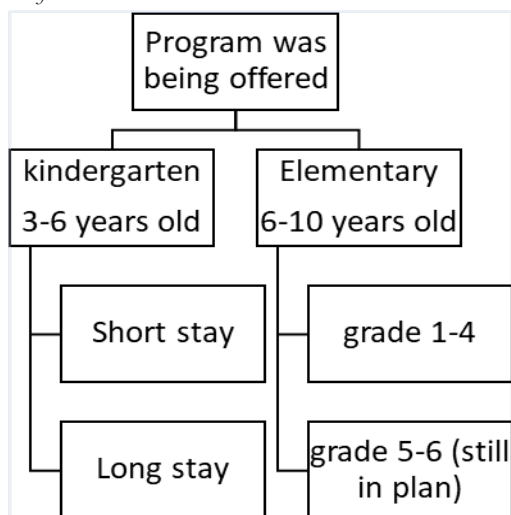
Children participate in all local Hindu-Balinese celebrations, such as Galungan, and our Muslim and Christian educators are encouraged to bring their celebrations. Waldorf education possesses a specific regional flavour. Children were taught how to craft with indigenous materials such as palm leaves, clay, and bamboo, were provided daily local cuisine and were taught indigenous music, games, and rhymes (Madu Waldorf, n.d.).

Table 4. The program is offered in Madu Waldorf Bali (source: <https://waldorfbali.com/>)

Activity	Curriculum
Language arts	At Madu, it strove for English language excellence. Indonesian was also taught formally and was a common language used in daily life. Children were also taught the various languages spoken in our multicultural neighbourhood.
Mathematics	As they learnt counting and the four math operations, Waldorf kids hop, skip, and toss bean bags. A kinesthetic and multisensory approach helped children comprehend and recall things. Through stories, artwork, and games, students got a “feeling of number” and a foundation for long division, geometry, algebra, and other mathematical skills.
Nature Study	Children at Madu developed a natural feeling of amazement and astonishment for Bali’s breathtaking natural environment. For children of all ages, time spent outdoors was vital for improved learning, health, well-being, and brain function. Children were encouraged to learn about nature in a creative, flexible, and enchanted manner through hands-on experience. Respect and appreciation for beauty were inherent to the Balinese way of life. Gardening, farming, botany, local geography, geology, and astronomy are just a few of our grade-level core courses.
Arts & Craft	In arts and crafts, students at Madu Waldorf School learn music, singing, playing the flute, dancing, knitting, felting, building, drawing, and painting.

Furthermore, some programs were being offered at Madu Waldorf. They are shown in Figure 7.

Figure 7. The type of program is available at Madu Waldorf. Source: Authors.



As Figure 7 shows above, the type of program was available at Madu Waldorf. There were two kinds of programs available: kindergarten and elementary. It was divided into two sections for kindergarten. First, a short stay refers to a student whose parents spent less than a year in Bali, whereas a long-term term refers to a family who lived in Bali for an extended time. If the family stayed in Bali for an extended time, their child might enrol in elementary school. Elementary schools currently only provide grades one through four. However, the Madu Waldorf website stated they would increase the grade to five in 2023 and six in 2024.

Furthermore, based on an interview with the Madu team, Madu Waldorf obtained many inquiries to enrol in their school even though they did not promote it. Madu's group stated that people would find them online or through word of mouth. Concerning school program, their school

program only focuses on students. Madu Waldorf did not offer the program to parents. Because they did not have any parent-related program, they did not have any partnerships with parents. The Madu team also said they committed to following all Waldorf guidelines and characteristics. For religion, Waldorf school accepted any religion as long as parents were open-minded and willing to receive educational philosophy for their children. All of the teachers in this school were Indonesian. They have received informal Waldorf training. Besides, Madu Waldorf had little communication with other schools in Waldorf.

Kulila Play Group

According to their website at <https://kulilajogja.wordpress.com>, the Kulila playgroup was located in Bantul, Yogyakarta, Indonesia. Kulila Play Group was an alternative preschool education inspired by the concept of Waldorf education, which was first initiated by a philosopher from Austria, Rudolf Steiner, who later developed independently without putting aside the noble values of existing local culture. The ages of students who can enrol at Kulila Playgroup range from 2.5 to 6. Students at Kulila Playgroup were not given technology, such as computers, and the teacher taught no formal concepts at Kulila. Basic numeracy and literacy skills are developed as a natural part of everyday activities.

Everyday storytelling lays strong foundations for language skills, including reading books, singing, rhyming, telling puppet stories, and personal interactions with each child. When children participate in circle time (through songs, poetry, and games), their counting skills help the teacher set the table for meals. For example, children would usually count the number of children and the teacher present to determine the number of glasses needed. Students assisted the teacher in the kitchen by calculating how many spoons of flour or salt were

required. Students also did gardening; for example, when children help build a fence, they count bamboo to determine how much fence is required. The curriculum of Kulila Playgroup broadly integrated all subject areas into a daily rhythm. Each day has a rhythm; children start with free play time and get together for activities at various times (Kulila Playgroup, n.d.).

According to their website at <https://kulilajogja.wordpress.com>, some activities are done by students. The activities were started from Monday to Friday. The activities each day were different. It can be seen in Figure 8.

Figure 8. Weekday activities in Kulila Jogya (Source: <https://kulilajogja.wordpress.com>)

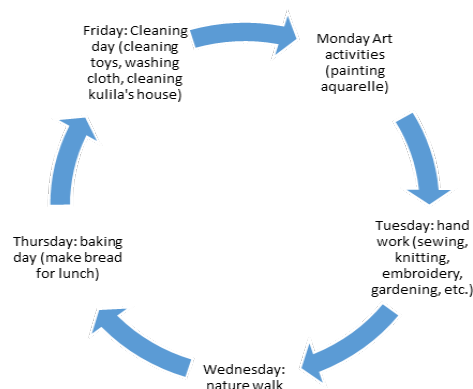


Table 5. Curriculum in Kulila Jogya (Source: <https://kulilajogja.wordpress.com>)

Activity	Curriculum
Free play	Free play time was an opportunity to encourage the growth of a child's imagination, to explore the limits of social experience, and to digest what they have seen, heard, or thought healthily and completely. Children acquire skills such as independent problem-solving, cognitive, creativity, self-expression, focus, language, numeracy, and social skills through imaginative play. This meant they learned to operate constructively and productively with others.
Circle time	Teachers and students would form a circle. Typically filled it with poetry, dance, and singing, followed by finger games, traditional games, and the sharing of stories. During circle time, children developed their fine motor abilities through finger movements and gestures, as well as their gross motor skills by leaping, running, dancing, clapping, and more. They exercised fundamental musical abilities such as singing and moving to the beat with their bodies and voices. Through rhyme, speech, vocabulary, phonemic awareness, and memory, circle time can also be used to develop literacy awareness.
Rhythm, repetition and reverence	For children to have a healthy mental balance, they need a healthy rhythm that mimics the pattern of breathing, especially breathing in (listening to stories or resting) and breathing out (running, playing). Together, Rhythm and Repetition provide an atmosphere with sequence, pattern, and order that helps prevent chaos in the classroom, allowing a child's brain to create the pathways and connections necessary for their future cognitive development.

In addition, we interviewed Orland as the school representative for Kulila Playgroup. Orland stated that their school's promotion focused on social media, such as Instagram. The reason for this was so that information could be disseminated more widely. Kulila Playgroup also offered programs that involved parents. They offered a study group. They would learn about one book by Rudolf Steiner and discuss various topics related to early childhood in this study group. They also frequently held workshops or programs involving children and parents, such as eco-printing or paper recycling. Kulila Playgroup offers parents the opportunity to participate in activities at Kulila Playgroup as part of the partnership program. For example, when Kulila Playgroup created a bazaar, parents would help the teacher prepare it, and when Kulila Playgroup had a mini trip for children, some parents offered to help provide accommodation. Kulila Playgroup used Waldorf philosophy for their school and adapted it to local wisdom that existed in their environment in terms of curriculum. Orland mentioned that every festival celebration in every city or country would be unique, so they would have to adapt. It was stressed in Kulila Playgroup that there would be no religious influence. In addition, the teacher in Kulila Playgroup had three teachers, and all of them were Indonesian. As a teacher, Orland had Waldorf Grade School Teacher Training in Bandung, and currently, all of our teachers are enrolled in Waldorf Early Childhood Teacher Training in Jogjakarta. For collaboration with another school, Orland stated that they also collaborated with another school via Zoom for discussion about their schools. Kulila Playgroup also organized a public discussion via Zoom with some Waldorf teachers from other schools. During the interview, Orland shared that it was their challenge to get students since Waldorf education was new in Indonesia and most parents who enrol their children in their school do so because they already know about this pedagogy. The main reason why

parents did not want their children to study at Kulila Playgroup was that it did not teach formal academics, so Kulila Playgroup attempted to hold a public discussion and workshop. The result of this was that they obtained new students who wanted to study at their school.

Denia Buen Playgarden

The Denia Buen website did not provide essential information about this play garden. As a solution, I found their Facebook account instead, namely Denia Buen Play Garden. Denia Buen was a play garden located in Balikpapan, Indonesia. They formed the Waldorf Balikpapan Learning Community, starting from a group of parents who had a dream to present a good picture of the world and strive for a balanced education. In this community, the seeds of ideas that have been planted since 2018 are starting to germinate into more concrete actions like Denia Buen Playgarden. Denia Buen Playgarden is education for families. Trying to present a small world that was natural, safe, and full of warmth, kindness and nobility. Denia Buen meant hope that a world filled with goodness would continue to be a part of our children's lives (Indonesia Waldorf Steiner Association, n.d.). Unfortunately, Denia Buen Playgarden's website did not explain the program in more detail. However, Denia Buen Play Garden was more actively advertising its program throughout its Facebook "Denia Buen Play Garden." The program offered by Deni Buen Play Garden can be seen in Table 6.

Denia Buen ensured that children had as many chances as possible to play freely and use their imaginations. It also used natural materials, which are gifts from the earth. The teachers made almost all of the toys in the school. The toys at Denia Buen Play Garden were simple and made from natural materials, like blocks, wooden toys, knitting dolls, and cloth dolls filled with cotton and sheep's wool. At Denia Buen Play Garden, stories were told

through circle time, nursery rhymes, finger plays, and puppet shows. Beautiful stories told with beautiful words would work their magic on children's hearts and minds to teach them morals and kindness. Stories and fairy tales are needed to help kids develop their imaginations and learn important lessons.

Table 6. Programs in Denia Buen playgarden (Source: Denia Buen Play Garden (n.d.). Home [Facebook page]. Facebook. Retrieved December 13, 2022.

Program	Aged	Number of students
Playgroup	Aged 3.5 – 5 years old	12
Parenting Le'ai class (parent and child club)	1.5 - 5 years old	-
Cloud class (observation class)	3.5 – 5 years old (with/without companion)	Maximum 10 and 3 families

By playing freely, the student could improve coordination of movement and balance, fine and gross motor skills, reading and math skills, logical and creative thinking, social intelligence, and many other skills. The real play could happen when the child comes up with the game idea on his own, without help from the adults around him. As an introduction to art activities, the teacher does not give instructions. Instead, she tells stories through fairy tales and other stories that show the noble cultural values of the archipelago, especially in East Kalimantan. When doing activities, kids were free to brush and mix colours, make beeswax models in different ways, and draw with beeswax crayons based on their ideas. The walls of the school building were soft colours, and the rooms were set up in a simple, understated way. It brought comfort and warmth when the students were doing things together. When working with kids, teachers will always attempt to be there with their whole hearts and minds, keep good words, and fully understand

everything they do and say. Happiness is done together daily, like doing chores around the house, making fruit snacks, making bread, and eating dinner (Indonesia Waldorf Steiner Association, n.d.).

In addition, based on the interview with one of the teachers from Denia Buen Playgroup, Gina from Denia Buen Playgroup interviewed WhatsApp. She explained that Denia Buen Playgroup tries to promote its school through digital media, specifically social media and blogging. As they shared photos and new stories, social media and blogging became platforms for documenting Denia Buen's playgroup journey. She also stated that Denia Buen had a program for both students and parents. The program is called "Klub Asuh Le'ai". It was derived from the Dayak language and called Pelangi (rainbow). Students in this class were accompanied to class by their parents, grandfather, or mother (or nanny). As a group of students, they did gardening, sweeping gardens, cutting branches, sewing, knitting, and other housework.

Meanwhile, students played by themselves (free play) without guidance. This class also served as a "trial and observation" period before parents decided to enrol their children in the next kindergarten class at Denia Buen Playgroup. At Denia Buen Playgroup, parents are also involved in various events, such as birthday parties, religious events, and other festivals. They prepared decorations and prepared food. Denia Bue playgroup also invited parents to join a regular study group to deepen their knowledge of pedagogy and Waldorf philosophy. Another activity that the teacher provided in Denia Buen's playgroup was home visits. It was one of the parent-teacher programs. In this activity, parents accepted teachers' visits to their houses and discussed everything related to child development, worry, and parents' expectations.

Moreover, Gina also mentioned that Denia Buen Playgroup opened a partnership for volunteers where parents with initiative and support could

volunteer in gardening, public relations, documentation, toy making, et cetera, based on their expertise and their children's interests. As for curriculum, she explained that in their curriculum, Waldorf was a philosophy, and their development comes from their teacher as a model. as a method that is adjustable based on their location and environment. The vital element in Denia Buen Playgroup was local culture, which was rooted in their school. The local language, regional festivals, cuisine, instruments, folk songs, and folklore added another colour. Gina, for example, informs us that one of the folklore stories was inspired by the city of Balikpapan. The stories were about a honey bear, a probosci monkey, the rainforest, farmers, and fishermen. The stories were not all from Europe. However, they came from folklore. For religion, Gina stated that school admission was not based on religion or belief. Religion only determined the festival that would be conducted at Denia Buen Playgroup. In religious celebrations, they would make decorations, nature tables, special cuisine, and stories that were told through circle time or storytelling.

For the teacher aspect, all teachers were local people. Some of my teachers are from the Dayak tribe, Palembang, and Bandung. Denia Buen Playgroup invites all teachers to join the training as Waldorf teachers in Waldorf Early Childhood Education Teacher Training under the Steiner Association of Indonesia and the International Association for Steiner/Waldorf Early Childhood Education (abbreviated as IASWECE). Furthermore, Gina explained that Denia Buen Playgroup cooperated with another Waldorf school by visiting or observing another Waldorf school. As part of Waldorf education in Indonesia, Denia Buen Playgroup joined the Waldorf Early Childhood Education Teacher Training, regular online study groups, mini workshops, and public talks.

The comparison among Waldorf school

Comparison General

The comparison among the Waldorf schools in Indonesia as they were written on their websites and Facebook can be seen in Table 7.

Table 7. Comparison among Waldorf school. Source. Authors.

Name of School	Website language	Teacher information regarding Waldorf knowledge	Parents Friendly	The program is being offered		Curriculum information	Level of school
				Student	Parents		
Jagad Alit	Bahasa Indonesia	no	yes	yes	study group	yes	kindergarten
Arunika Waldorf	Bahasa Indonesia	yes	yes	yes	study group parent	yes	kindergarten & elementary
Bambino Preschool	English	no	yes	yes	Mom & Tots	yes	kindergarten
Madu Waldorf	English	yes	yes	yes	-	no	kindergarten & elementary
Kulila playgroup	Bahasa Indonesia	no	yes	yes	-	yes	kindergarten
Denia Buen Play garden	Bahasa Indonesia	no	yes	yes	kelas asuh le'ai	no	kindergarten

Except for Bambino Preschool and Madu Waldorf, most of the Waldorf School's website is written in Bahasa Indonesia, as shown in Table 7. The reason may be because of the location of the schools: Bambino Preschool is located in the capital city of Indonesia, and Madu Waldorf is located in a tourist area where most of the language used is English and Bahasa Indonesia. Regarding teacher information who had Waldrop-type training or education. There were only Arunika, and Madu Waldorf mentioned this. Arunika Waldorf described their teacher's name, academic background, length of teaching experience, and Waldorf training. All of the websites and Facebook pages were suitable for parents. The parents could easily find their information through their websites and find

out what kinds of programs were being offered, the contact person at the school, and registration. The most intriguing aspect was that parents could also find information on teacher and parent stories on the Jagat Alit website. Parents also could participate in school activities. Some schools, such as Jagat Ali, Arunika, Bambino Preschool, and Denia Buen Playgarden, offer this program. Even though Kulila Playgroup and Madu Waldorf did not offer such kinds of activities for parents, the websites were still categorized as parent-friendly because they are easy to access.

Comparison on Curriculum

In terms of curriculum, a comparison of the program on its curriculum is shown in Table 8.

Table 8. Comparison of the Waldorf curriculum. Source: Authors.

Name of School	Curriculum
Jagat Alit	Each subject can be taught through poetry, stories, art, handiwork (crocheting, knitting, basic sewing, and woodworking), or drama. Daily rhythm, free play, telling stories, and klab anak rabu with parents and other students.
Arunika Waldorf	Based on the National Curriculum of the Republic of Indonesia, where children were the main subject. Mix in local (Sundanese) cultural elements and flavours to make learning more interesting. Art, music, and crafts are part of the curriculum for grades one through six. The whole of science, art, and spirituality was taught to the students. The subject was explained through stories (storytelling) told in the Waldorf style. They did not stick to any books or rules, exceptional Learning Rhythm: Main Lesson Block (one lesson is studied for 3–6 weeks), the cultural, social, and environmental integrity of each lesson, and it being an inclusive institution.
Bambino Preschool	Comprehensive Curriculum, which was based on the Montessori, Waldorf, and Reggio Emilia methods of teaching. One of the Waldorf Educational Principle's Fundamental Characteristics was that children should be able to use storytelling, singing, drawing, painting, rhythmic games, and modelling to help their imaginations and creativity grow healthily. Every day in Bambino, kids do music, arts and crafts, role play, and creative movement. They were also encouraged to do meaningful practical activities like cooking, baking, and gardening, with a focus on the processes rather than the results of learning. Character education was also taught in the early years. Stories, mini-dramas, puppet shows, games, and music and movement are all good ways to do this.
Madu Waldorf	Children were taught how to make things with local materials like palm leaves, clay, and bamboo. They also ate local food every day and learned local songs, games, and rhymes. Language arts, math, science, and arts and crafts.
Kulila Playgroup	They had free play, circle time, rhythm, repetition, and respect.
Denia Buen Playgarden	Almost all of the toys in the school were made by the teachers. The toys at Denia Buen Play Garden were simple and made from natural materials, like blocks and wooden toys, knitting dolls, and cloth dolls filled with cotton and sheep's wool. During circle time, nursery rhymes, finger plays, and puppet shows, different stories are told. They were also free to play. When working with kids, teachers always attempt to be there with their whole hearts and do things together every day, like doing chores around the house, making fruit snacks, making bread, and, of course, eating dinner.

Table 9. compares the ages of students' admission. Source: Authors.

Name of School	Age	
	Kindergarten	Elementary
Jagad Alit	3-6 or 7 years old	-
Arunika Waldorf	4-6 years old	Minimal 6 years old
Bambino Preschool	4 – 6 years old	-
Madu Waldorf	3-6 years old	6-10 years old
Kulila Playgroup	2.5 to 6 years old.	-
Denia Buen Playgarden	3.5 to 5 years old	-

Comparison of Student Age

Based on the data, the admission on students' age differs. The comparison of students' ages is illustrated in Table 9.

Based on the table above, the age of students in every Waldorf school is different. Kulila Playgroup had the youngest age at 2.5 years old in the category of kindergarten. If based on the program offered, it was from Bambino Preschool. They provided a toddler program that used play-based learning for students aged 1.5 to years. Unfortunately, there was no detailed information on age in elementary school, whether on the website or another social media platform. Arunika Waldorf School stated that the minimum age for Arunika Waldorf students who want to enrol is six years old. On the other hand, Madu Waldorf did not mention this on their website, which only stated that they are available for grades 1 to 4.

Grades 5 and 6 were about to be established.

Waldorf Learning Method

Based on the data, Waldorf's learning style in each school had similarities. Each school had similarities, such as using science and arts to teach students. All courses offered were creative and practical for students. The main characteristic of Waldorf schools in Indonesia is that they have activities for the students, such as free play, circle time, storytelling, and crafts.

Table 10 shows that all Waldorf schools in Indonesia used the same method to teach their students. Among these schools, Bambino claimed that they implemented a comprehensive curriculum based on the Montessori, Waldorf, and Reggio Emilia pedagogies. Even though this school does not fully implement Waldorf, the method of Waldorf still could be viewed in their teaching.

Table 10. Learning Method on Waldorf School. Source: Authors.

School	Learning Method
Jagad Alit	<ul style="list-style-type: none"> balancing academic courses with creative and practical activities, poetry, storytelling, art, handiwork (crocheting, knitting, rudimentary sewing, woodworking), or drama, rhythmic, and practical labour, free play, circle time, storytelling
Arunika Waldorf	<ul style="list-style-type: none"> art, music, and craft in the curriculum, science, art, and spirituality are conveyed to matter, the subject is conveyed through stories (storytelling) using a Waldorf-style storytelling technique, learning rhythm
Bambino Preschool	<ul style="list-style-type: none"> meaningful play, project-based learning, and basic academic activities, imaginative play, the activities were arts and crafts, music, and circle time
Madu Waldorf	<ul style="list-style-type: none"> taught how to craft with indigenous materials such as palm leaves, clay, and bamboo, were provided daily local cuisine and taught indigenous music, games, and rhymes
Kulila playgroup	<ul style="list-style-type: none"> storytelling reading books, singing, rhyming, and telling puppet stories, children participate in circle time (through songs, poetry, and games), daily rhythm
Denia Buen	<ul style="list-style-type: none"> to play freely and use their imaginations. it also uses natural materials, which are gifts from the earth like blocks, wooden toys, knitting dolls, and cloth dolls filled with cotton and sheep's wool, stories are told through circle time, nursery rhymes, finger plays, and puppet shows

Waldorf Concept Based on Text Interview

According to the interview, except for Bambino Preschool and Madu Waldorf, all schools used the whole concept of Waldorf education. Similarly, all the school representatives answered that they implemented the entire Waldorf, but there were adjustments. The adjustment or modification that they mentioned on culture. As stated Kulila Playgroup: “We adopted it as a whole and then

developed or adjusted it based on existing local culture. For example, festival celebrations would differ with every festival conducted in another Waldorf school in another city or country (Orland, January 26, 2023)”.

Furthermore, a representative teacher from Arunika Waldorf school also similarly said: “Waldorf education in every world allowed the freedom to design instruction according to school needs and

culture in their place. In Arunika school, the factor for adjustment was language and national curriculum (Nindi, January 17, 2023)”.

Based on statements from the teachers from each school, it was clear they said that Waldorf education was implemented in the school as a whole except for the culture of each school. The reason for this was that each country’s cultural background was different. Indonesia, with various cultures and languages, using culture from original Waldorf education did not fit into Indonesian schools, so in terms of culture, each school used its culture to fit the Waldorf concept into its curriculum.

Discussion

According to what we found, the curriculum of Waldorf in Indonesia follows Waldorf’s theory. The implementation of activities such as free play, circle time, rhythm, and indoor or outdoor playing Waldorf’s concept of using natural materials and the environment in their play was also well implemented. The implementation of the Waldorf curriculum was also incorporated into the national curriculum of Indonesia for the Arunika Waldorf School since there were two types of schools: kindergarten and elementary school. This finding was in line with Edmund (2012), who stated in the Steiner lesson that the main lesson was that math and science students could view their work. The cycle of three days This three-day cycle provided a more in-depth look at the two-hour main lesson, during which the kids engaged in a mixture of group work and activity, individual work and learning, and rhythmic movement. One of the rhythmic elements in the classroom was the skill of conversation with its give-and-take.

Moreover, creating imagination in Waldorf school was essential, as Waldorf’s theory was based on Steiner. It followed a statement from Verlag (1996). Young infants must develop their

relationship with the world as people do when they imagine it creatively for them to grow emotionally. Let the world of plants, animals, air, and stars exist in the children’s hearts and minds in the shape of a fairy tale or fable would not make the children into dreamers if the teachers are not idle dreamers. As the curriculum was stated on their website, all schools also made a rhythm for students in their activities. This rhythm was essential for student development. According to Dahlin (2017), on a broader scale, when individuals complete the subject and leave it for resting and forgetting, to remember it, the subject must bring it up again and again. According to Steiner, rhyming words for studying benefits students’ learning processes. It enabled some students to absorb information. All the Waldorf education in Indonesia indeed implemented Waldorf curriculum into their school, particularly about the rhythm of the subject. In Arunika, studying rhythm took about three to six weeks.

In Kulila Jogya, repetition and rhythm with sequence, pattern, and order aimed to avoid chaos in the class. This method made children develop their cognitive development. This result is in line with Stehlik (2019). It was essential to have a synchronized approach to the rhythms and patterns of daily lessons and weekly schedules, and the schedule every year was emphasized, consisting of the main lesson, the celebration of seasonal and cultural festivals, and the integration of the arts and sciences in a holistic. The phenomenological approach presents knowledge that balances cognitive, aesthetic, and experiential learning is highly emphasized. As for Waldorf’s concept of using natural materials and the environment in their play, as stated by Petrash (2002), the young children were put in an environment that could give them a chance to learn about natural things.

In addition, Aruna, Madu Waldorf, and Kulila Playgroup presented their local culture through the subject being taught. Aruna Madu brought Sundanese culture, Madul Waldorf blended student

subjects with Balinese culture, and Kulila Playgroup put Javanese culture into the subject. This finding is supported by Stehlik (2019), that the curriculum was based on European/Western ideals and Steiner's original ideas, and it was presented in every school's cultural, geographical, and political context. Implementing local norms, procedures, and legislation may sometimes contradict Waldorf principles, such as a young child must start with formal education or take proper tests. Presenting and adjusting the curriculum within each country's or culture's religious background must be respected.

The core Waldorf education was for a Waldorf teacher to employ creative and imaginative skills to bring the curriculum alive via a dynamic and fashion rather than relying on pre-determined sources and materials. This finding about culture being inserted into a Waldorf school in Indonesia was similar to that of Barkved (2018). Today, everyone can find Waldorf schools on every continent and culture. The fact that Waldorf schools were not limited to a European framework but are integrated into many religious and cultural contexts and that there are several multicultural Waldorf schools in Germany suggests that it is more than a Western fringe phenomenon. The concept of a pedagogy that educates students to value individual freedom and independent thinking and to take an interest in the world by providing them with an education that seeks to achieve identification with a diversity of cultures and many ways of being a human being is timely, inclusive, and forward-thinking. Even though such development didactics were inextricably related to the backdrop of European and Western intellectual history, it was possible to express them in a way that recognizes the importance of diverse cultures without favouring one's own. It did not imply abandoning the concept of the evolution of consciousness throughout history; rather, it referred to the attitude one adopted when presenting various historical and contemporary

cultural expressions, where, without ranking them by value, one can describe rich cultural material and a development logic that was not linear but demonstrates the rich diversity of humanity.

In terms of free play at Waldorf School. Denia Buen and Kulila Playgroup ensured that children had as many chances as possible to play freely and use their imaginations. The European Council supported this result for Steiner Waldorf Education (n.d.). The Steiner Waldorf curriculum was suited to children's ages and developmental needs. While early childhood education focuses on physical movement, sensory stimulation, imitation, and free play as basic needs of children (Pálfi et al., 2020), primary school learning focuses on emotions and strives to foster imagination and authentic interactions with adults and peers (Mező & Mező, 2014). The emphasis in the upper years was on conscious learning and the development of independent judgment. Our developmentally suitable and age-appropriate approach allows youngsters to develop strong personalities. In addition, all of the Waldorf schools discovered that students could play inside and outside the classroom. This result aligned with Petrash's (2002) statement that children played to develop social interaction. Children would learn to share, agree, and cooperate within social groups. It was important in human relationships, and they learned it from Waldorf School. Furthermore, outdoor play taught children to appreciate the natural world.

Moreover, Arunika Waldorf's method of education prioritised collaboration over competition, with one teacher in charge of classes one through six. The curriculum included art, music, and craft; the integration of science, the arts, and spirituality is stressed.

The teacher of Denia Buen Play Garden made their toys made from natural materials such as blocks and wooden toys, knitting dolls, and cloth dolls. The stories were delivered via circle time, nursery rhymes, finger plays, and puppet shows.

This mindset also contributed to the essentials of crafts and arts.

According to Randall and Peters (2015), student-teacher connections were valued in Waldorf Schools by students and teachers. It was rather than lack of grades, range of activities for example, theatre projects, class trips, and monthly presentations), and the teachers' professional ethos. As a result, unexpectedly, Waldorf students identified more strongly than other public schools. Waldorf education provided analogue education. It was found following Paull and Hennig (2020), giving children direct learning experiences. The teacher taught students to do something via games, arts, crafts, dance, music, gardening, or science. This approach was different from current digital media education. Waldorf education made students adapt and acclimate to local mores and claim its future. Chodakowski et al. (2011) also agreed that lessons are designed to continuously seek the fantastic, make the topic imaginatively appealing for students, and highlight the oppositions that offer consistency and vividness to how we develop stories.

We found that teachers who worked at Waldorf school attempted to provide the teacher with background Waldorf Education training, such as Jagad Alit, Arunika Waldorf, and Denia Buen Playgroup. This finding was pivotal since the teacher was the main human resource at the school. This finding was also supported by Steiner (2004). In education based on human knowledge, such as Waldorf education, the first thing to consider was not conveying rules or advice about how to teach; the first thing to consider was holding teacher training courses in such a way that find the hearts of the teachers and deepen those hearts, so that love for the children grows from them. Teachers may assume they can "impose" such love on themselves, yet forced human love accomplishes nothing. It may have good intentions, but it would accomplish nothing. The only human love capable of doing

anything came from closely examining particular instances.

Conclusion

The national curriculum of Indonesia has changed many times. Even though it had changed many times, there was still an unbalanced issue on the well-being of students. As a response to the well-being of the individual in the education system in Indonesia, Waldorf education appeared as one of the solutions to this issue. Concerning Waldorf schools had already spread over the world. For Indonesia itself, Waldorf education was new in the education sector. there were only a few Waldorf schools that could be found.

Based on the study result, the websites of Waldorf schools in Indonesia showed only six schools that implemented Waldorf education. Waldorf school in Indonesia was only located in the big cities in Indonesia. Jagad Alit initiated the first Waldorf school in Indonesia in Bandung. Indonesia had more Waldorf schools in other cities in Indonesia in a few years. There were Jagad Alit in Bandung, Arunika Waldorf in Bandung, Bambino Preschool in Jakarta, Madu Waldorf in Bali, Kulila Playgroup in Jogjakarta, and Denia Buen Playg Garden in Balikpapan.

Generally, most Waldorf schools in Indonesia were built for kindergarten, except Arunika Waldorf in Bandung and Madu Waldorf in Bali. In terms of Waldorf curriculum, Waldorf schools in Indonesia adopted all curricula and main features of Waldorf schools from Europe. However, due to cultural differences. All Waldorf schools adjusted the curriculum based on their local culture. In addition, to the implementation methods of Waldorf education, all schools implemented Waldorf strategies to teach their students, such as free play, creative, story-telling, circle time, and repetition activities. In addition, this study also had some limitations. First, contacting the participants

according to their emails that they wrote on their websites did not get all responses, so all of the social media was used to contact Waldorf school, for example, Instagram. An email was not everyday communication in Indonesia, while Instagram was a flat form that generally was used to promote the school. Second, due to time differences of about six hours between researchers and participants, the data collection of interviews took time than expected.

The finding of this study confirmed that Waldorf school in Indonesia was still limited if it were compared to public school in Indonesia. Even though the number of schools of Waldorf was limited, Waldorf schools provided more perspective on education for Indonesians besides the national curriculum that had been built over the years, Waldorf education brought a new view. Waldorf education in Indonesia still had a long journey to develop more whether to gain more students or increase the level of their school to a higher level. However, it had become a new refreshment for Indonesia's education system.

References

- Barkved, F. (2018). View of history and history teaching in Waldorf education. *Research on Steiner Education*, 8(2), 105-119.
- Chazan, B. (2021). *What is "education"? Principles and pedagogies in Jewish education*. Palgrave Macmillan.
- Chodakowski, A., Egan, K., Judson, G. C., & Steward, K. (2011). Some neglected components of teacher education program. In C. J. Craig & L. F. Deretchin (Eds). *Cultivating curious and creative minds* (pp. 5-21). Rowman & Littlefield Education.
- Dahlin, B. (2017). *Rudolf Steiner the relevance of Waldorf education*. Springer.
- Edmunds, F. (2012). *An introduction to Steiner education*. Rudolf Steiner Press.
- Mező, K., & Mező, F. (2014). The IPOO-model of creative learning and the students' information processing characteristics. *Horizons of Psychology* 23 136-144. DOI [10.20419/2014.23.414](https://doi.org/10.20419/2014.23.414)
- Paul, J., & Hennig, B. (2020) Rudolf Steiner Education and Waldorf Schools: Centenary World Maps of the Global Diffusion of "The School of the Future". *Journal of Social Sciences and Humanities*, 6 (1), 24 - 33.
- Petrash, J. (2002). *Understanding Waldorf education teaching from the inside out*. Gryphon House, Inc.
- Randoll, D., & Peters, J. (2015). Empirical research on Waldorf education. *Educar em Revista, Curitiba, Brasil*, 0 (56), 33-47 DOI [10.1590/0104-4060.41416](https://doi.org/10.1590/0104-4060.41416)
- Pálfi S., Rákó E.; Varga Nagy A.& Teszenyi E. (2020): Children's rights in Hungary in early childhood education and care In: Jane, Murray; Beth, Blue Swadener; Kylie, Smith (edit) *The Routledge International Handbook of Young Childrens Rights*. London, Routledge of Taylor and Francis Group pp. 354-365.
- Stehlik, T. (2019). *Waldorf schools and the history of Steiner education: An international view of 100 years*. Lees, H., & Reiss, M. (Eds.) Palgrave Macmillan.
- Steiner, R. (2004). *Human values in education*. Anthroposophic Press.
- Verlag, R. S. (1996). *Rudolf Steiner in the Waldorf school: Lectures and addresses to children, parents, and teacher 1919-1924* (Creeger, C. E., Trans). Anthroposophic Press. (Original work published 1980).

Internet references:

- Arunika Waldorf. (2020, March 19). *Sekolah*. arunika.<https://arunikawaldorf.wordpress.com/2020/03/19/sekolah-waldorf/>
- Arunika Waldorf. (2020, March 19). *Pendidikan yang sehat*. <https://arunikawaldorf.wordpress.com/2020/03/19/pendidikan-yang-sehat/>
- Arunika Waldorf. (2020, March 19). *Ritme harian*.

- <https://arunikawaldorf.wordpress.com/2020/03/19/ritme/>
- Arunika Waldorf. (2020, March 19). *Child study*.
<https://arunikawaldorf.wordpress.com/2020/03/19/child-study/>
- Arnika Waldorf. (2020, March 19). *Three foldness*.
<https://arunikawaldorf.wordpress.com/2020/03/19/three-foldness/>
- Arunika Waldorf. (2020, March 19). *Form drawing*.
<https://arunikawaldorf.wordpress.com/2020/03/19/form-drawing/>
- Bambino Preschool. (n.d.). *About bambino Preschool*.
<https://www.bambinopreschool.com/visionmission>
- Bambino preschool. (n.d.). *Academic*.
<https://www.bambinopreschool.com/curriculum>
- Bambino preschool. (n.d.). *Academic*.
<https://www.bambinopreschool.com/programs>
- Denia Buen Play Garden (n.d.). *Home* [Facebook page]. Facebook. Retrieved December 13, 2022 from https://www.facebook.com/people/Denia-Buen-Play-Garden/100063801024628/?paipv=0&eav=Afa0DkLYORuXbXIA_lyhif6U1qaUoA42NftnMigdJLluKFtHc-yr8LyDuTEurEA0EvI&_rdr
- European Council for Steiner Waldorf Education (n.d.). *An example of Steiner Waldorf School*.
<https://ecswe.eu/waldorf-steiner-education-in-europe-2/>
- Indonesia Waldorf Steiner Association. (n.d.). *Denia buen-balikpapapn* <https://waldorf-indonesia.wordpress.com/denia-buen-balik-papan/>
- Jagad Alit Waldorf. [@jagadalitwaldorf_playkinder]. (2018, May 31). Pendaftaran masih dibuka untuk usia 3-6/7 tahun. Awal tahun ajaran Juli 2018.
- Jagad Alit Waldorf school. (n.d.). *Tentang jagad alit*.
http://jagadalitschool.blogspot.com/p/blog-page_19.html
- Jagad Alit Waldorf School (n.d.). *Kurikulum*.
<http://jagadalitschool.blogspot.com/p/kurikulum.html>
- Kulila Jogja. (n.d.). *Tentang Kulila*.
<https://kulilajogja.wordpress.com/a-propos/>
- Kukilala Jogja. (n.d.). *Kukikulum Kulila*.
<https://kulilajogja.wordpress.com/prinsip-prinsip-mengajar-kami/>
- Madu Waldorf. (n.d.). *Welcome to madu waldorf*.
<https://waldorfbali.com/>
- Madu waldorf. (n.d.). *About us*.
<https://waldorfbali.com/about/>
- Madu Waldorf. (n.d.). *our program*.
<https://waldorfbali.com/activities/>
- The World Bank (2020). *The promise of education in Indonesia*.
<https://documents1.worldbank.org/curated/en/658151605203420126/pdf/The-Promise-of-Education-in-Indonesia.pdf>
- Wildensyah, I. (2019, April 9). *Sekolah waldorf kini hadir di indonesia*. <https://www.goodnewsfromindonesia.id/2019/04/09/sekolah-waldorf-kini-hadir-di-indonesia>

**THE 7 CORE PRINCIPLES OF WALDORF EDUCATION FOR
CHILDREN WITH AUTISM SPECTRUM DISORDER (ASD)**

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Abstract

Waldorf education provides a developmentally appropriate, experiential, and academically demanding educational approach. It seeks to stimulate lifelong learning in all students while also allowing them to fully utilize their individual abilities. Hence, the objective of this study is to establish how the seven core principles of Waldorf education will assist children with Autism Spectrum Disorder (ASD) to flourish. The Waldorf method, according to Priyanti and Warmansyah (2021), is utilized to help children attain a delicate blend of genuine experience, which leads to a strong level of confidence in their abilities. This applies the acquired abilities to use especially for ASD children. Furthermore, the significance of this paper can also assist the educational system in identifying the methodological underpinnings that will benefit these special kids. This study is a review of the literature to determine how the seven key principles of Waldorf education support children's moral growth and encourage free and independent thought, which promotes self-discovery. ASD children benefit greatly from educational philosophies that encourage the development of successful social-emotional behaviors and academic skills. Waldorf education, an educational philosophy that emphasizes developmentally appropriate hands-on learning, has been shown to improve social and academic outcomes for children with disabilities such as ASD.

Keywords: Waldorf education, principles, autism spectrum disorder, ASD

Discipline: pedagogy

Absztrakt

A WALDORF-PEDAGÓGIA 7 ALAPELVÉNEK ALKALMAZÁSA AZ AUTIZMUS SPEKTRUM ZAVARRAL ÉLŐ GYERMEKEK ESETÉBEN

A Waldorf-pedagógia a fejlődésnek megfelelő, tapasztalati alapú és tudományos igényű oktatási megközelítést kínál. Arra törekszik, hogy minden tanuló esetében ösztönözze az egész életen át tartó tanulást, miközben lehetővé teszi, hogy a tanulók az egyéni képességeiket teljes mértékben kibontakoztassák. Jelen tanulmány célja annak bemutatása, hogy a Waldorf-pedagógia hét alapelve hogyan segíti az autizmus spectrum zavarral élő gyermekek boldogulását. A Waldorf-módszert Priyanti és Warmansyah (2021) szerint arra használják, hogy segítsék a gyermekeket a valódi tapasztalatok elérésében, mely a képességeikbe vetett erős bizalom kialakulásához vezet. A Waldorf-pedagógia alkalmas arra, hogy ezt a képességet az autista gyermekekben is megerősítse. Ezen túlmenően, a tanulmány segítheti az oktatási rendszereket abban, hogy meghatározzák azokat a módszertani alapokat, amelyek előnyösek lehetnek a különleges bánásmódot igénylő gyerekek esetében. A tanulmány szakirodalmi áttekintést nyújt a Waldorf-nevelés hét alapelveinek alkalmazásával kapcsolatban, bemutatja, hogy mindez hogyan támogatja a gyermekek erkölcsi fejlődését és hogyan ösztönzi a szabad és független gondolkodást, az önfelfedezést. Az autista gyermekek fejlesztésében nagyon hasznos az olyan nevelési filozófia, amely a sikeres szociális-érzelmi viselkedés és a tanulmányi készségek fejlesztését ösztönzi. A Waldorf-oktatás, egy olyan pedagógiai filozófia, amely a fejlődésnek megfelelő tapasztalati tanulást hangsúlyozza, mely bizonyítottan javítja a szociális és tanulmányi eredményeket a sajátos nevelési igényű diákok esetében is.

Kulcsszavak: Waldorf-pedagógia, elvek, autizmus spektrum zavar,

Diszciplína: pedagógia

Waldorf Education Background

The history of Waldorf education began in 1919 when Rudolf Steiner, Austrian philosopher, accepted an invitation to give lectures to the employees of the Waldorf-Astoria cigarette factory in Stuttgart, Germany. Correspondingly, Emil Molt, the owner of the firm, requested Steiner to build and oversee a school for the kids of the factory workers (Rawson, 2021). Steiner agreed with the establishment of the school under the following four conditions: (1) the school must be open to all children; (2) it must be coeducational; (3) it must be a unified twelve-year school; and (4) the teachers, who would be working directly with the students, must take the lead in running the school with the least amount of interference from governmental or financial concerns (The Marin Waldorf School Diversity Statement, 2017). After a period of preparation for the aspiring instructors, Molt consented to the terms, and on September 7, 1919, die

Freie Waldorfschule (the Free Waldorf School) was inaugurated. 2020 (Paull and Hennig). According to Lamb (2012), the first Waldorf school started with 256 students in eight grades, 191 of whom came from manufacturing families and the remaining 65 from Stuttgart-based interested families. The number of students increased to 420 in the second year, with around half coming from Waldorf families and the other half from outside. In contrast to the children from outside homes, the number of industrial children remained roughly steady throughout the ensuing years. Thus, the factory that served as the first school is where the name "Waldorf" originates (de Souza, 2012)

The concept of Waldorf education rapidly spread as the movement toward its growth gained ground in several European nations. By the time Steiner's death on March 30, 1925, Waldorf schools were opened in several countries such as Dornach, Switzerland (1921), King's Langley, Hertfordshire,

England (1922), The Hague, Netherlands (1923) and also in London, England (1925). Several more Waldorf schools were opened in 1926 in Basel, Switzerland; Oslo, Norway and Budapest, Hungary while Switzerland opened the first Waldorf school in Zurich in 1927. The first Waldorf school in America was opened in New York in 1928. The development of Waldorf school happened so rapidly that in 1962, there were 66 Waldorf schools opened while the number of students studying in Waldorf schools in 1973 amounted to 40,000 children. This number continued to increase to more than 100,000 children who studied in Waldorf schools in 1975. According to statistics by Waldorf World List (2022), until September 2022, there are 1270 Waldorf and Rudolf Steiner schools in 80 countries and 1928 Waldorf Kindergartens in more than 70 countries.

In Waldorf education, Steiner strongly believed that education should be comprehensive and integrated. The philosophy of Waldorf education, or also known as Steiner education refers to the learning process that engages head, heart, and hands which refers to thinking, feeling, and doing (Worrell, 2022). It also describes situations in which children learn best when they actively investigate and interact closely with their surroundings in the natural world (Bransby and Rawson, 2021). Steiner stresses that children between the ages of five and fourteen are particularly sensitive to the internal images and messages contained in stories. Imagination and multiculturalism are fostered by Waldorf education and it is associated with the study of myths, lore, and fairy tales (Strickland and Johnson, 2020). Drama, storytelling, visual arts, rhythmic movement, and music are all incorporated into the daily work of elementary school teachers. It incorporates an experience that makes topics come to life in children's emotions, motivation, and thoughts (Koca, 2022). Children in a Waldorf classroom do not spend the entire day sitting at their desks and chairs; rather, they walk throughout the classroom

under the teacher's supervision to learn about art, play, cooking, music, and outdoor adventure.

Waldorf schools place a strong emphasis on experiential learning, which means that rather than having children memorize knowledge from textbooks or lectures, they learn through completing practical tasks like gardening or woodworking (Rawson, 2019). According to Cerna et al., (2021), experiential learning is the process through which students are immersed in an experience and then encouraged to reflect on that experience in order to develop new knowledge, talents, or attitudes. Apart from focusing on experiential learning, in addition to regular classroom instruction, Waldorf schools offer a variety of extracurricular activities, such as theater performances (Stabel, 2022), music lessons (Honkonen, 2021), work projects (Sun, 2020) and also sports clubs (Duncombe, 2019). This coincides with the Waldorf education's main goal of developing a person who has a high level of spiritual awareness and ethical ideals in addition to someone who is compassionate, creative and independent. It also aims to create someone who can think critically and has knowledge about a variety of subjects, as well as someone who has developed their physical well-being through good health habits (Michaelis et al., 2022). By nurturing a child's lifelong love of learning and helping them think creatively and independently, Waldorf educators aim to help children discover their inherent love of learning and to prepare them for life in the real world (Binetti, 2020).

Furthermore, Waldorf teachers, according to Rawson (2022), attempt to promote and engage every student through a curriculum and pedagogy that blends academics, the arts, and practical skills. By offering children a rich and varied curriculum that fosters innovation and creativity, teachers will combine academic, creative, and practical instruction throughout the curriculum. In order to ensure that students have ownership over the learning process, teachers actively encourage them to use

their imaginations while developing classes and projects. Meanwhile, in contemplation of providing students independence in the classroom, teachers also encourage them to choose activities based on their own interests (Far et al., 2023). By enabling the employment of arts and activities in the service of academic education, the establishment of an internal drive to learn in students eliminates the need for competitive testing and grading. Aljabreen (2020), asserted that teachers will urge students to be active participants in their learning process rather than passive users of knowledge, concurs with this.

Autism Spectrum Disorder (ASD) Overview

Autism Spectrum Disorder (ASD) is a broad term intended to signify a group of complicated developmental disorders that affect people's communication, socialization, and behavioral abilities (Eckes et al., 2023). According to Glossary of Autism Spectrum Disorders Related Terminology, (n.d.), some related terminology of ASD are Autism, Autistic Disorder, Asperger's Syndrome and Diagnostic and Statistical Manual (DSM-5). The American Psychiatric Association defines ASD as a complicated developmental syndrome characterized by persistent difficulties with social communication, limited interests, and repetitive conduct. Although autism is a lifelong disorder, the degree of functional impairment caused by these challenges varies between individuals with autism (Jadhav and Schaepper, 2021). Statistics from Global Prevalence of Autistic: A Systematic Review Update (Zeidan et al., 2022) states that 1 in 100 or 100 out of every 10,000 children worldwide have an autism spectrum disorder diagnosis. In the Autism Rates by Country 2023 released by the World Population Review (2021), Qatar recorded the highest number of autistic children with 1 in every 66 children suffering from ASD while France was the country with the lowest record of 1 in 144.

To elaborate on ASD further, two common concerns that frequently occur simultaneously in people with autism are difficulties with social interaction and communication, which is referred to as a dyad of impairments (Flis et al., 2020). The term "dyad" refers to interconnected and interacting areas of impairment that have a major impact on an individual's capacity to communicate and interact with others (Sotiropoulou Drosopoulou et al., 2022). The Dyad of Impairments, often known as the Diagnostic and Statistical Manual of Mental Disorders, was established in 2013 alongside the DSM-5 to account for sensory impairments when assessing and diagnosing autism (Samadi et al., 2022). Individuals with autism spectrum disorders frequently struggle to engage in social interactions and express themselves properly. This can include problems with eye contact, nonverbal communication like facial expressions, and social cues and conventions like taking turns in conversation (Almehmadi et al., 2020). Furthermore, ASD people may also struggle with empathy and understanding the perspectives of others (Mendoza, 2022). Isolation and difficulty building relationships with others can result from communication hurdles. The second half of the dyad is characterized by constrained and repetitive activities and interests (Iversen and Lewis, 2021). This can include stereotyped and repetitive behaviors like hand flapping or back-and-forth rocking, as well as preoccupations with specific interests or sensory stimulation. These actions and interests can be self-stimulating and give the individual with ASD with a sense of comfort or regularity (Thompson, 2023). These habits, however, can interfere with daily functioning, such as social relationships and academic or occupational performance. Making friends, interpreting body language, knowing social rules, speaking, listening, and understanding what others say can all be difficult for autistic people. People with autism may struggle to connect with others and understand social settings due to these

limitations. It can also make it difficult for people to express themselves and communicate their requirements. Although this can be difficult, people with autism can develop strategies to improve their social interaction and communication skills and lead fulfilling lives with the help of support and therapy. A doctor or healthcare provider diagnoses a dyad of impairments by assessing the presence of two health conditions and their impact on the individual. Making a diagnosis often involves a thorough medical evaluation and assessment of symptoms. Some people may struggle more with social interaction and communication, whereas others may exhibit more restricted and repetitive behaviors and interests. The dyad is just a method of comprehending and identifying the two primary areas of difficulties that can affect people with autism.

There is no known cure for ASD at this time; rather, treatment for a dyad of impairments will differ according to the exact impairments and the individual person. Medication, therapy, and lifestyle modifications, as well as various types of support and rehabilitation, may all be used. The goal is to assist the individual in managing both impairments and achieving the best potential outcomes. It's crucial to note that the dyad of impairments isn't a one-size-fits-all notion, and the intensity and combination of the two areas of impairment can vary greatly amongst people with ASD. There are numerous methods and treatments available to assist individuals with ASD in better navigating the dyad of impairments (Cohmer, 2014). Additionally, accommodations and changes to the individual's environment can be made to lessen sensory overload and provide greater structure. Individuals with ASD can benefit greatly from access to suitable resources and assistance. ASD is often diagnosed after a thorough evaluation by a team of clinicians that specialize in Autism Spectrum Disorders. This examination comprises a comprehensive review of the patient's medical history, developmental

assessments, and behavioral observations. ASD diagnosis can be difficult, and it frequently necessitates repeated exams and evaluations over several months.

Early intervention is important to help ASD children in their daily life and this may enhance cognitive, communicative, and social abilities as well as underlying brain development (Ebert, 2020). Besides, early intervention also can be done by nutrition services (Banerjee, 2023), physical therapy (Cooper, 2022), speech training (Yan et al., 2021), family training (Rooks-Ellis et al., 2020) and audiology services (Rea et al., 2019). Play is frequently used as a kind of intervention, thus the child is often not even aware that they are learning. The Early Start Denver Model (ESDM), a behavioral therapy using Applied Behavior Analysis techniques for autistic children between the ages of 12 and 48 months (Cidav et al., 2017) and also the TEACCH program strives to improve the learning and development of autistic children by leveraging their current strengths to support the identity and academic growth of autistic children (Davis et al., 2022). Awareness of autism should be fostered among the community so that ASD children or adults will not feel left out. Thus, awareness about autism is implemented through the celebration of World Autism Awareness Day on April 2 each year.

Living with ASD can be challenging, not just for the individual, but also for their family. People with ASD require specialized care and support to help them fulfill their potential and lead a fulfilling life. It is essential to provide a structured environment with clear routines and schedules and to provide support with social interactions. Given the right support and care, people with ASD can thrive and achieve their full potential. Many studies have been conducted for ASD such as to learn more about methods of treatments and therapy (Czelej et al., 2023), symptoms of ASD (Doyle and McDougle, 2022), etiology and pathology (Sauer et al., 2021),

ASD children management (Hyman et al., 2020), possible causes and risk factors (Kim et al., 2019), and also ASD classification (Sharma et al., 2018). Based on these studies, researchers have concluded that the learning of autistic children is greatly influenced by experience and environment (Patrascoiu, 2022). Therefore, this article was written to see how the principles found in Waldorf education can help the development process of ASD children.

Autistic Children in Waldorf Education

A book published by Waldorf Publication entitled “The Seven Core Principles of Waldorf Education” (Pedagogical Section Council & Leibner, 2017) has elaborated on the 7 principles found in Waldorf education. Each of the principles will be explained in relation to how Waldorf education promotes the growth of autistic children.

Image of the Human Being

In the perspective of Waldorf education, the idea of the human being is frequently presented in terms of a harmonious balance between spirit, body and soul. The development of these three elements is a crucial element in the development of autistic children. Spirituality is the ability to exhibit awareness or understanding of the world around us by expressing amazement, compassion, and love for this world and everything in it (Robinson, 2019). Rudolf Steiner held spirituality to be innate in all people and that spiritual development needed to be encouraged. Children with autism gain awareness of and comfort with virtues like reverence and responsibility (Gul et al., 2019) by developing a passion for their environment and the ability to accept other people's uniqueness without being afraid. Meanwhile, from the body aspect, Steiner stated that the first seven years of a child's growth are the time when their will and desires begin to blossom. Thus, mental and physical growth and development affects the intellectual development

of autistic children (Pivina et al., 2019). In this stage of growth, environment and eating habits are crucial components. Eating disorders in autistic children frequently result in behaviors like eating very little food (Page et al., 2022), taking a long time to finish meals (Wheeler, 2022), or not being able to eat at school (Cormack, 2019). There is no doubt that this has an impact on how physically autistic children develop, and it is crucial for parents and schools to play a part in making sure that this does not happen. It is necessary to balance the development of the etheric body's vitality with the strong and healthy growth of the physical body and all of its organs. By soul, Steiner refers to the sympathies and antipathies that permeate every emotion in a person. The concept of sympathy and antipathy is the dependence on moral judgments being made based on feelings of conscience. Similar to adults, autistic children will determine whether a behavior is right or bad based on their feelings, intuition, or conscience. The feelings have a tendency to be inconsistent and need emotional application because they are subjective. Therefore, the opposing forces of thought will interact to produce our emotional life. The involvement of parents and teachers in particular can assist autistic children comprehend emotions by explaining how thoughts lead to feelings. Autistic children may need guidance to recognize, understand, and manage their emotions. This is consistent with a study by Salimi et al., (2019), which found that autistic children frequently need assistance learning how to manage and control their intense emotions.

The three-life stages in child development

The process of a child's development is their transition from dependency to growing independence as they mature from childhood into adolescence. Early childhood, middle childhood, and adolescence are the three distinct developmental phases that constitute Waldorf education's understanding of how human potential emerges.

According to Feiler and Tomonari (2019), early childhood starts from the time a child is born until they reach the age of 8. Meanwhile, for middle childhood, the age of children is from 8 years old to 12 years old and those in adolescence range in age from 12 to 18 years old. Bildiren et al., (2022) highlighted that Early childhood development comprises gross motor skills (crawling or running), fine motor skills (writing or drawing), speech and language, cognitive and intellectual (counting or identifying shapes), and also social and emotional skills (playing with other children). Nevertheless, issues such as delayed language, delayed cognitive or learning skills, or hyperactivity for autistic children under the age of 8 require parents and teachers to consider the most effective ways to support these children's development. There are 7 activities that have been suggested by PS Academy Arizona (2022) to assist children with autism who are having cognitive skill issues. Meanwhile, for children who are in the middle childhood age, this stage is linked to rapid cognitive growth and the improvement of social abilities as a result of interaction with peers. The children stop relying on their families for longer stretches of the day and begin making new friends in their new environments at school. During this stage, the children's physical development happens quickly as well. The development of middle childhood is influenced by a number of elements, which can be classified as environmental or hereditary (Yersel and Durualp, 2020). However, the developmental stages and changes that occur in middle childhood are very different for a child who has received an autism diagnosis. Children with autism may have trouble managing anxiety that is possibly related to their not knowing what to say in social situations. It is possible to avoid social situations as a result of anxiousness. This can lead to social isolation for the autistic individual, limiting their capacity to make new friends. The inability to understand body language, which includes a challenge to accurately

discern the tone and cadence of a voice and can result in errors in interpreting other people's conduct, is frequently a hurdle for children with autism (Minot, 2022). In a study conducted by Schuck et al., (2022), the solution to the issue of anxiety in the association and communication of autistic children is to surround the child with peers who share their interests in order to give them the confidence to continue interacting. Furthermore, teachers and parents should concentrate on using basic, easy-to-understand words when communicating as studies have shown that using simple words and language can help autistic children manage and calm (Wilson et al., 2019). When entering adolescence, autistic children will experience hormonal and physical changes like other children, however, puberty can be particularly difficult for autistic children. Thus, parents and teachers should play a role in helping autistic children in the puberty process such as by discussing the distinctions between a child's and an adult's bodies. Earlier explanations about puberty will help autistic children to be prepared mentally and physically. Holmes et al., (2019) stated that social stories, visual supports, and meaningful language can all aid in helping autistic adolescents comprehend how their bodies will change.

Developmental Curriculum

When Steiner decided to support the building of a school, he had thought of a school concept where the curriculum approach was compatible with the different phases of child development (Edmunds and Barton (2004). When there is a statement where you use a name, date, etc. you must cite Steiner also believes that from birth to age 7, children need to mimic their environment. Additionally, at this age, children learn best by doing and this process emphasizes play, oral language, practical tasks, and physiological intelligence. The surroundings and the child's imagination are key components in the development of

autistic children. By creating a conducive environment in the classroom, such as by setting up a suitable workstation that allows for a variety of activities, autistic children can learn effectively (Ghazali et al., 2019). A creative mind relies heavily on imagination. In the Waldorf curriculum, children will be given freedom for any art activity. Nevertheless, these imaginative encounters may occur in autistic children considerably later than in children with average development. According to Lee, (2021), due to their limited creativity, autistic children usually struggle with artistic endeavors. This causes autistic children to experience communication skills problems. However, the development of their imaginative and creative play may enhance their communication abilities. Besides, children engage in imaginative play when they compensate for their own stories, role-play, or use toys or everyday things in novel ways. Certainly, through imaginative and creative play, children learn socially, emotionally, vocally, cognitively, cognitively, and even physically (Bololia et al., 2022). Meanwhile, the curriculum in Waldorf education for students between the ages of 7 and 14 places a strong emphasis on idealism, in which teachers support students' innate potentials as they naturally grow. The teacher is given a specific position by idealism. It regards the teacher as the student's live role model and as a spiritual advisor. Waldorf educators believe that children are capable of attaining great things if they have the opportunity to explore their intellectual and creative potential. This approach is based on the belief that a child's development depends not only on what happens in the classroom, but also on what goes on outside it. Therefore, teachers at Waldorf schools strive to help their students develop a strong sense of personal responsibility and a sense of harmony with the world around them. In many ways, this emphasis on idealism is evident in every aspect of the curriculum. Idealism has been historically associated with the ideas of Transcendence

(Hart, 2014) and Universality (Dahlin, 2017), which are believed to be essential aspects of the Waldorf education. Thus, the development of autistic children between the ages of 7 and 14 incorporated into the Waldorf curriculum and will result in moral character. The belief of transcendence for children with autism has the power to rise above his/her physical limitations to become one with the higher forces in the universe. The universality in Waldorf education for the children with autism is the interconnectedness of all life systems such as humans, animals, plants, minerals and the fact that all things are interrelated through cycles of growth, transformation, and regeneration.

Freedom in teaching

In Waldorf school, teachers are a pedagogical artist who is empowered to share with the children their unique interests, experiences, and talents in order to make the lessons more engaging (Honkonen, 2021). It has provided teachers with a unique opportunity to provide freedom in teaching autistic children in Waldorf education. According to Nelson et al., (2017), academic freedom refers to a teacher's liberty to teach and discuss subjects without limitations or intervention from the school or government officials. Meanwhile, Barton (2020) stated that the unrestricted expression of ideas by teachers and students in the classroom, regardless of institutional, political, or religious barriers. This is very appropriate to be applied to children with autism because it is common knowledge that each autistic child is different in terms of accepting learning methods. Teaching in a Waldorf School is not confined to teaching from a set curriculum, but also encourages teachers to follow their intuition and creativity when it comes to imparting knowledge and developing their lessons. This freedom to create lessons that meet the needs of individual children provides teachers with an opportunity to connect deeply with each student, helping them develop their full potential. Additionally, Waldorf

education allows teachers to tap into a wide range of disciplines and interests that can be used to stimulate and engage students, including storytelling, music, art, drama and physical activities. Allowing teachers the freedom to create their own curriculum and engage students in a variety of disciplines helps foster an environment that is stimulating, supportive and enriching for all involved. Through this creative and flexible approach to teaching, Waldorf schools offer a unique learning experience that can be tailored to the specific needs of each student. These benefits of Waldorf education allow teachers to develop a deeper connection with each student, enabling them to truly get to know their individual strengths, weaknesses, and learning styles (Park-Cardoso and da Silva, 2021). This connection allows teachers to better adapt the curriculum to each student's individual needs, helping them to reach their full potential in the classroom.

Methodology of Teaching

Each learning approach has its own method of teaching. Skutil et al., (2016) stated that general guidelines, pedagogy, and management techniques applied during classroom instruction are referred to as methodology of teaching. In Waldorf education, there are several methodologies used in the learning process where each of these methodologies can help the development process of autistic children. Among the methodologies used in Waldorf education are (i) Teaching using images allows teachers to assist students in growing their ability to think synthetically in living pictures as opposed to only in terms of abstract analytical principles. The process of learning through images genuinely helps autistic children to increase the clarity of their communication by giving a visual representation of their feelings, thoughts, goals, or demands (Omar and Bidin, 2015). In addition, Autistic children are very sensitive to certain colors and every color seen in the image can affect their

learning process. The next methodology is (ii) Echolalia which refers to the repetition of speech, which is very common in school-aged autistic children. By incorporating rhythmic and repetitive language into the learning environment, educators can harness this natural inclination to help students develop communication skills. Prior research has found that individuals with echolalia use their repetitions to engage in communicatively functioning speech (Ryan et al., 2022). To capitalize on the potential of echolalia, teachers should focus on repeating information with a rhythm and refrain from using questions that would require an answer, as it can become overwhelming for the student. In order to create an optimal learning environment, teachers can also leverage the student's echolalia to build their receptive language skills. By prompting the student to repeat back what they heard, teachers can help strengthen their understanding of spoken language and encourage them to explore different vocal inflections. Subsequently, the third methodology refers to the artistic transfiguration which means when the teachers are teaching autistic children, they can offer a safe environment where they can explore and understand their artistic talents while also communicating their thoughts and feelings in a non-verbal way. The term "artistic" may not necessarily refer to the traditional arts like singing, drawing, or sculpture but rather to the perceptually evident, which, like those arts, uses perceptible media to expose the invisible. Therefore, a math issue or science endeavor can be just as aesthetic as a storyline or an artwork. Through art experiences, children with autism can express their inner thoughts and feelings that would otherwise be hard for them to communicate in words. In addition, art-based activities can help children with autism increase self-confidence and gain the skills to succeed in their social lives (Park, 2022). Autistic children can improve their motor skills while creating art utilizing equipment to draw, paint, or learn an

instrument through a controlled procedure. The satisfaction of finishing an artistic project can boost self-assurance and self-worth (Gopal, 2023). Among other methodologies that are stressed in Waldorf education is (iv) educating not instructing. This is regarding how the teacher will educate autistic children about the concepts, ideas, theories, or history rather than giving the children a set of tools or tasks to do something specific. A teacher simplifies the meanings of the content by educating, which means by giving explanations, and providing examples related to the topic being studied. Besides, the analysis and explanation of the topic simplify the difficult things, making it easier for autistic children to learn. Educating helps the students to understand the content quickly, giving them clarity of thought and providing them with a more complete view of the subject matter. By carefully analyzing and explaining a problem, teachers can ensure that their students have a greater understanding of the concepts being taught. Furthermore, explanations can help teachers to keep their students engaged in the lesson by prompting them to think deeply about the problem and encouraging them to ask questions. Explanation is an important teaching way as it helps students to gain a better understanding of the material being taught.

Teacher-Student Relationship

Waldorf education supports each child to build healthy relationships to their own body, to other people and to the world. It does this within the framework of its overall aims of enabling children especially the autistic children in their socialization, qualification and individuation. In Waldorf Education, teachers often remain with their classes and because of this effective concept, the teacher-student interaction is the bedrock of classroom dynamics and the growth of each individual student. As teachers periodically spend time with a group of students, teachers get a unique understanding of each student's strengths and

weaknesses. This understanding alters how learning occurs in the class. In many Waldorf schools, the child stays with the same teacher from 1st up to 8th grade (Dorfman and Fortus, 2019), therefore, it's crucial to put relationship quality at the center of schooling.

Children are more likely to be engaged and perform at a high level of learning when they feel that their teachers genuinely care about them. According to Losh (2022), for children with autism, strong bonds with teachers are key to success. Taking an attentiveness in student interests had a saliency score substantially higher than that of other categories, both within and across prompts. Occasionally failure among students can be attributed to their anxiety, sense of unease, or even fear in the classroom. The necessity of having a physical safe, comfortable area or quiet corner within the classroom, as well as being consistent and predictable, was affirmed by teachers as a way to help autistic children feel safe and trusted (Bolourian et al., 2022). Esqueda Villegas et al., (2022) stated that to establish a solid rapport with autistic children, teachers might employ a variety of strategies. Making it clear that the instructor cares about the children is one technique to build a positive student-teacher connection. It can be accomplished by conversing with the students and getting to know them better. Another approach is to listen to the children. Teachers may do this by learning about their individual learning methods, hearing their comments, and taking into account their interests. The close relationship between teachers and autistic children definitely makes these children feel more comfortable to interact and trust the teacher. Teachers are also dedicated to maintaining positive working connections with both their colleagues and the parents of the students in their classes. By fostering these connections, the school community's social life is improved, and the students' socio-emotional learning is further enhanced.

Anthroposophy (the wisdom of human development)

The term “anthroposophy” derives from the Greek word “anthropos-sophia” which translated into English means human wisdom (Von Gleich, 1998). The human being is a complex creature, with many different characteristics with the ability to think, make decisions, share information and also communicate. Humans have developed many tools that allow them to work together in order to achieve a common goal more efficiently than if they were working individually. Anthroposophy is fundamentally a study of the human being, our nature, development and task. Through anthroposophy, autistic students will grow spiritually by applying uniquely human abilities to develop clear thinking and a truthful perception of the world (Kellum, 2018). The individual child's healthy growth is the primary driving force behind Waldorf education. The curriculum seeks to encourage and promote each student's most wholesome growth and also demands that particular learning experiences be presented to children at particular times and in particular ways in order to ensure that the physical, emotional, and intellectual development of the child are all given equal priority. Moreover, every lesson in a Waldorf school is guided by the notion that supports the development of the whole child. The development of teachers, and consequently the creation and delivery of curricula, is centered on the active study and observation of children. There is no one part of the school's operations that is exclusive to the Waldorf education. It is reflected in the school's organizational structure, social and physical environment, curriculum material and teaching strategies, and educational goals. The philosophy of Waldorf education seeks to develop students' physical, emotional, intellectual and spiritual capabilities, equipping them with the skills they need to become creative and productive citizens. Waldorf education strives to provide an education that is holistic and balanced, focusing on the individual and their

needs. This holistic approach to education seeks to provide a well-rounded experience for the student, not just in terms of academic learning, but also in developing the character and spiritual growth of autistic children.

Conclusion

Human education development occurs in the abstract and until today, there is no particular method that works for all individuals when it concerns autism and schooling. The criteria for what constitutes a good educational program vary from child to child. However, the Waldorf educational setting gives autistic children the chance to interact with their environment and learn at their own pace. Rudolf Steiner realized that movement is a useful tool for learning. Scientific research has demonstrated how movement affects learning and cognition, which are interconnected. A learning environment where children are actively involved in their studies has therefore been implemented in Waldorf education. Instead of rote memorization and drill, learning is instead centered on a child's exploration of a concept until it is learned. As a result of Waldorf education's insistence that knowledge should be made explicit enough for any kid of any age to understand and learn, a technique and a number of materials that may be incorporated into the classroom environment were developed. Contrary to conventional education, which emphasizes students learning the same thing, at the same time, in the same way, Waldorf education places a different emphasis on individual learning styles. It places an emphasis on the idea that learning is a process that is independent of a child's age. Learning is instead measured by how quickly a child can master one ability before moving on to the next. Children with autism may benefit from a variety of components of a Waldorf education, starting with outdoor play, learning through art, relaxed teaching style and individualized attention. Thus, it

is intended that by outlining the seven founding principles of Waldorf education for autistic children, parents may gain insight, particularly when choosing the right school for their children. Therefore, it is hoped that by presenting the seven guiding principles of Waldorf education for autistic students, parents may gain understanding, especially when selecting the best school for their kids. In a Waldorf setting, teachers support and assist parents in finding an alternate method of educating autistic children. The development of standardized skills is the main goal of traditional education, but Waldorf schools adopt a more holistic approach and strive to provide students more opportunities to grow in their own character and connect with their spirituality. Although Waldorf schools were developed primarily for non-autistic children, the teachers are not specially trained to teach autistic students. However, many characteristics of Waldorf schools facilitate the integration and successful education of well-functioning autistic children.

References

- Aljabreen, H. (2020). Montessori, Waldorf, and Reggio Emilia: A comparative analysis of alternative models of early childhood education. *International Journal of Early Childhood*, 52(3), 337–353. DOI [10.1007/s13158-020-00277-1](https://doi.org/10.1007/s13158-020-00277-1)
- Banerjee, S. (2022). A Review of the Effectiveness of Various Diet types on Autism. *Journal of Mental Health Issues and Behavior (JMHI)*, 3(01), 1–7. DOI [10.55529/jmhib.31.1.7](https://doi.org/10.55529/jmhib.31.1.7)
- Barton, K. C. (2020). Students' understanding of institutional practices: The missing dimension in human rights education. *American Educational Research Journal*, 57(1), 188–217. DOI [10.3102/0002831219849871](https://doi.org/10.3102/0002831219849871)
- Bildiren, A., Firat, T., & Kavruk, S. Z. (2022). Developmental characteristics of a 0-to 3-year-old gifted child based on video analysis. *Gifted Education International*, 02614294221146623. DOI [10.1177/02614294221146623](https://doi.org/10.1177/02614294221146623)
- Binetti, G. (2020). *Steiner Education: freedom, spirituality and creativity*. PhD thesis, University of Glasgow. DOI [10.5525/gla.thesis.81642](https://doi.org/10.5525/gla.thesis.81642)
- Bololia, L., Williams, J. M., Goodall, K., & Macmahon, K. (2022). Dramatherapy for children and adolescents with Autism Spectrum Disorder: A systematic integrative review. *Arts in Psychotherapy*, 80, [101918]. DOI [10.1016/j.aip.2022.101918](https://doi.org/10.1016/j.aip.2022.101918)
- Bolourian, Y., Losh, A., Hamsho, N. (2022). General Education Teachers' Perceptions of Autism, Inclusive Practices, and Relationship Building Strategies. *J Autism Dev Disord* 52, 3977–3990. DOI [10.1007/s10803-021-05266-4](https://doi.org/10.1007/s10803-021-05266-4)
- Bransby, K. & Rawson, M. (2021). Waldorf Education for the Future: A framework for curriculum practice. DOI [10.13140/RG.2.2.22027.62249](https://doi.org/10.13140/RG.2.2.22027.62249).
- Cerna, N., Piedra, D., Pollex, h., & Vallee, N. (2021). Improving Experiential Learning in the Online Environment. In the *Handbook of Research on Innovations in Non-Traditional Educational Practices*. USA. IGI Global.
- Cidav, Z., Munson, J., Estes, A., Dawson, G., Rogers, S., & Mandell, D. (2017). Cost offset associated with Early Start Denver Model for children with autism. *Journal of the American Academy of Child & Adolescent Psychiatry*, 56(9), 777–783. DOI [10.1016/j.jaac.2017.06.007](https://doi.org/10.1016/j.jaac.2017.06.007)
- Cooper, M. (2022). Reducing special education costs by providing early intervention for autistic children. *Behavioral Interventions*, 37(2), 397–414. DOI [10.1002/bin.1839](https://doi.org/10.1002/bin.1839)
- Cormack, J. (2019). *I Can't Eat That, I Don't Like It.. Teacher Education and Autism: A Research-Based Practical Handbook*, 95–105. Jessica Kingsley
- Czelej, M., Gładysz, K., Szydłowska, J., Żuchnik, O., Król, O., Kwiatkowski, P., Kuczyńska, B., Klos, A., Gieroba, K. & Szydłowski, M. (2022). Hippotherapy as an accompaniment to therapy in children with autism. *Journal of Education, Health*

- and Sport* [online].13 (1). 263–269. [accessed 12.1.2023]. DOI [10.12775/JEHS.2023.13.01.039](https://doi.org/10.12775/JEHS.2023.13.01.039).
- Dahlin, B. (2017). Anthroposophy as the Basis for Pedagogical Anthropology. In Rudolf Steiner (pp. 57-81). Springer, Cham. DOI [10.1007/978-3-319-58907-7_8](https://doi.org/10.1007/978-3-319-58907-7_8)
- Davis, R., den Houting, J., Nordahl-Hansen, A., & Fletcher-Watson, S. (2022). Helping autistic children. *The Wiley-Blackwell Handbook of Childhood Social Development*, 729-746. DOI [10.1002/9781119679028.ch39](https://doi.org/10.1002/9781119679028.ch39)
- de Souza, D. L. (2012). Learning and human development in Waldorf pedagogy and curriculum. *Encounter: education for meaning and social justice*, 25(4), 50-62. -:
- Dorfman, B. S., & Fortus, D. (2019). Students' self-efficacy for science in different school systems. *Journal of research in science teaching*, 56(8), 1037-1059. DOI [10.1002/tea.21542](https://doi.org/10.1002/tea.21542)
- Doyle, C. A., & McDougale, C. J. (2022). Pharmacologic treatments for the behavioral symptoms associated with autism spectrum disorders across the lifespan. *Dialogues in clinical neuroscience*. 14(3): 263-79. DOI [10.31887/dcns.2012.14.3/cdoyle](https://doi.org/10.31887/dcns.2012.14.3/cdoyle)
- Duncombe, R. (ed) (2019). *The Physical Development Needs of Young Children*. Routledge.
- Ebert, S. (2020). Theory of mind, language, and reading: Developmental relations from early childhood to early adolescence. *Journal of Experimental Child Psychology*, 191, 104739. DOI [10.1016/j.jecp.2019.104739](https://doi.org/10.1016/j.jecp.2019.104739)
- Eckes, T., Buhlmann, U., Holling, H. D., & Möllmann, A. (2023). Comprehensive ABA-based interventions in the treatment of children with autism spectrum disorder—a meta-analysis. *BMC psychiatry*, 23(1), 1-19. DOI [10.1186/s12888-022-04412-1](https://doi.org/10.1186/s12888-022-04412-1)
- Edmunds, F., & Barton, M. (2004). *An introduction to Steiner education: the Waldorf school*. Sophia Books.
- Esqueda Villegas, F., van der Steen, S. & Minnaert, A (2022). Interactions Between Teachers and Students with Autism Spectrum Disorder in Mainstream Secondary Education: Fundamental, yet Under-Researched. *Rev J Autism Dev Disorder*. DOI [10.1007/s40489-022-00346-2](https://doi.org/10.1007/s40489-022-00346-2)
- Far, S. K. N., Emamjomeh, M. R., & Hamidi, F. (2023). A comparative study of high scope, Reggio Emilia & Waldorf approaches: providing guidelines for training of pre-primary teachers in Iran. *Iranian Journal of Comparative Education*, 6(1), 2350-2370. DOI [10.22034/ijce.2022.345758.1410](https://doi.org/10.22034/ijce.2022.345758.1410)
- Feiler, R., & Tomonari, D. (2019). Stages of Growth Child Development - Early Childhood (Birth to Eight Years), Middle Childhood (Eight to Twelve Years). Stateuniversity.com.
- Ghazali, R., Sakip, S. R. M., & Samsuddin, I. (2019). Sensory Design of Learning Environment for Autism: Architects awareness?. *Journal of ASLAN Behavioural Studies*, 4(14), 53-62. DOI [10.21834/jabs.v4i14.338](https://doi.org/10.21834/jabs.v4i14.338)
- Glossary of Autism Spectrum Disorders related Terminology. (n.d.). www.easterseals.com. Retrieved May 4, 2023, from <https://www.easterseals.com/support-and-education/living-with-autism/glossary-of-autism-disorders.html>
- Gopal, R. (2023). Learning in the Arts and Aesthetic Development. In *Learning without Burden* (pp. 211-235). Routledge India.
- Gul, A., Bhat, N., & Ganie, Z. A. (2019). The Effect of Parenting Behavior on Behavior Problems of Children with Autism Spectrum Disorders. *Research Journal of Humanities and Social Sciences*, 10(4), 1059-1065. DOI [10.1177/1836939119870907](https://doi.org/10.1177/1836939119870907)
- Hart, T. (2014). *The integrative mind: Transformative education for a world on fire*. Rowman & Littlefield.
- Holmes, L. G., Strassberg, D. S., & Himle, M. B. (2019). Family sexuality communication for adolescent girls on the autism spectrum. *Journal of autism and developmental disorders*, 49(6), 2403-2416. DOI [10.1007/s10803-019-03904-6](https://doi.org/10.1007/s10803-019-03904-6)
- Honkonen, J. (2021). Improvisation Workshops and Development of Musicianship. A Study in a Finnish Waldorf Teacher Training College. *The*

- Finnish Journal of Music Education*. FJME, Page.43-56.
- Honkonen, J. (2021). *Variations on the Idea of Learning—Benchmarking the Interface Between Finnish Comprehensive School and Waldorf School Music Education*. JYU dissertations
- Hyman SL, Levy SE, Myers SM. (2020) Council on Children with Disabilities, Section on Developmental and Behavioral Pediatrics. Identification, Evaluation, and Management of Children With Autism Spectrum Disorder. *Pediatrics*. 145(1): e20193447. DOI [10.1542/peds.2019-3447](https://doi.org/10.1542/peds.2019-3447)
- Jadhav M., Schaepper M. A. (2021). What Is Autism Spectrum Disorder? *Psychiatry.org*; American Psychiatric Association.
- Kellum, R. (2018). Anthroposophic Naturopathy: From Half Science to Whole Science. *Lilpoh*,23(90),8.
- Kim, J. Y., Son, M. J., Son, C. Y., Radua, J., Eisenhut, M., Gressier, F., ... & Fusar-Poli, P. (2019). Environmental risk factors and biomarkers for autism spectrum disorder: an umbrella review of the evidence. *The Lancet Psychiatry*, 6(7), 590-600. DOI [10.1016/s2215-0366\(19\)30181-6](https://doi.org/10.1016/s2215-0366(19)30181-6)
- Koca, C. (2022). Waldorf Approach in All Aspects . *Academy Journal of Educational Sciences* , 6 (1) , 37-43 . DOI [10.31805/acjes.1077925](https://doi.org/10.31805/acjes.1077925)
- Lamb, G. (2012). *The social mission of Waldorf education*. New York: AWSNA.
- Lee, I. J. (2021). Kinect-for-windows with augmented reality in an interactive roleplay system for children with an autism spectrum disorder. *Interactive Learning Environments*, 29(4), 688-704. DOI [10.1080/10494820.2019.1710851](https://doi.org/10.1080/10494820.2019.1710851)
- Losh, A. (2022). *The Impact of Positive, Supportive Classroom Environments for Young Autistic Children: Positive Reinforcement and Student-Teacher Relationships* (Doctoral dissertation, UC Riverside).
- Michaelis, T. L., Scheaf, D. J., Carr, J. C., & Pollack, J. M. (2022). An agentic perspective of resourcefulness: Self-reliant and joint resourcefulness behaviors within the entrepreneurship process. *Journal of Business Venturing*, 37(1), 106083. DOI [10.1016/j.jbusvent.2020.106083](https://doi.org/10.1016/j.jbusvent.2020.106083)
- Minot, D. (2022). Why Autistic Children Struggle with Developing Friendships. [online] Autism Spectrum News. Available at: <https://autismspectrumnews.org/why-autistic-children-struggle-with-developing-friendships/> [Accessed 9 Jan. 2023].
- Nelson, J. L., Palonsky, S. B., & McCarthy, M. R. (2017). *Critical issues in education: Dialogues and dialectics*. Waveland Press.
- Omar, S. & Bidin, A. (2015). The Impact of Multimedia Graphic and Text with Autistic Learners in Reading. *Universal Journal of Educational Research*. 3. 989-996. DOI [10.13189/ujer.2015.031206](https://doi.org/10.13189/ujer.2015.031206).
- Page, S. D., Souders, M. C., Kral, T. V., Chao, A. M., & Pinto-Martin, J. (2022). Correlates of feeding difficulties among children with autism spectrum disorder: a systematic review. *Journal of autism and developmental disorders*, 52(1), 255-274. DOI [10.1007/s10803-021-04947-4](https://doi.org/10.1007/s10803-021-04947-4)
- Park-Cardoso J, D Silva (2021). APS. Preference to Eat Alone: Autistic Adults' Desire for Freedom of Choice for a Peaceful Space. *Autism Adulthood*;3(3):257-265. DOI [10.1089/aut.2020.0066](https://doi.org/10.1089/aut.2020.0066).
- Patrascoiu, L. A. (2022). Collaborative Learning Environments for Autistic Children in the Inclusive School. In *Interventions for Improving Adaptive Behaviors in Children With Autism Spectrum Disorders* (pp. 52-65). IGI Global.
- Paull, J., & Hennig, B. (2020). Rudolf Steiner Education and Waldorf Schools: Centenary World Maps of the Global Diffusion of "The School of the Future". *Journal of Social Sciences and Humanities*,6,24-33.
- Pedagogical Section Council, Leibner, Elan 2017. The Seven Core Principles of Waldorf Education. Waldorf Publications
- Pivina, L., Semenova, Y., Doşa, M. D., Dauletyarova, M., & Bjørklund, G. (2019). Iron deficiency, cognitive functions, and neurobehavioral disorders in children. *Journal of Molecular*

- Neuroscience*, 68, 1-10. DOI [10.1016/j.ijcci.2019.100144](https://doi.org/10.1016/j.ijcci.2019.100144)
- Priyanti, N., & Warmansyah, J. (2021). the effect of loose parts media on early childhood naturalist intelligence. *Jurnal Pendidikan Usia Dini*, 15(2), 239-257. DOI [10.21009/JPUD.152.03](https://doi.org/10.21009/JPUD.152.03)
- PS Academy Arizona. (2022). 7 Cognitive Skill Activities for Children with Autism. [online] - :<https://psacademyarizona.com/blog-posts/7-cognitive-skill-activities-for-children-with-autism>
- Rawson, M (2022). *Steiner Waldorf Teacher Education. Holistic teacher education: In search of a curriculum for troubled times*, 54-73. United Kingdom. Cambridge Scholars Publishing
- Rawson, M. (2019). The Development of the Person in Waldorf Steiner Education: Subjectification and Possible Links to Non-formal Learning Situations and Expansive Learning in Waldorf (Steiner) Education. *Other Education-the journal of educational alternatives*,8(2),2-25
- Rawson, M. (2021). *Steiner Waldorf pedagogy in schools: A critical introduction*. Routledge.
- Rea, K. E., Armstrong-Brine, M., Ramirez, L., & Stancin, T. (2019). Ethnic disparities in autism spectrum disorder screening and referral: implications for pediatric practice. *Journal of Developmental & Behavioral Pediatrics*, 40(7), 493-500. DOI [10.1097/dbp.0000000000000691](https://doi.org/10.1097/dbp.0000000000000691)
- Robinson, C. (2019). Young children's spirituality: A focus on engaging with nature. *Australasian Journal of Early Childhood*, 44(4), 339-350. DOI [10.1177/1836939119870907](https://doi.org/10.1177/1836939119870907)
- Rooks-Ellis, D. L., Howorth, S. K., Boulette, S., Kunze, M., & Sulinski, E. (2020). Effects of a parent training using telehealth: Equity and access to early intervention for rural families. *Journal of Childhood, Education & Society*. DOI [10.37291/2717638X.202012](https://doi.org/10.37291/2717638X.202012)
- Ryan, S., Roberts, J., & Beamish, W. (2022). Echolalia in Autism: A Scoping Review. *International Journal of Disability, Development and Education*, 1-16. DOI [10.1080/1034912X.2022.2154324](https://doi.org/10.1080/1034912X.2022.2154324)
- Salimi, M., Mahdavi, A., Yeghaneh, S. S., Abedin, M., & Hajhosseini, M. (2019). The Effectiveness of Group Based Acceptance and Commitment Therapy (ACT) on Emotion Cognitive Regulation Strategies in Mothers of Children with Autism Spectrum. *Maedica*, 14(3), 240–246. DOI [10.26574/maedica.2019.14.3.240](https://doi.org/10.26574/maedica.2019.14.3.240)
- Sauer, A. K., Stanton, J. E., Hans, S., & Grabrucker, A. M. (2021). Autism Spectrum Disorders: Etiology and Pathology. In A. M. Grabrucker (Ed.), *Autism Spectrum Disorders*. Exon Publications.
- Schuck, R.K., Tagavi, D.M., Baiden, K.M.P. et al. (2022). Neurodiversity and Autism Intervention: Reconciling Perspectives Through a Naturalistic Developmental Behavioral Intervention Framework. *J Autism Dev Disord* 52, 4625–4645 DOI [10.1007/s10803-021-05316-x](https://doi.org/10.1007/s10803-021-05316-x)
- Sharma, S. R., Gonda, X., & Tarazi, F. I. (2018). Autism Spectrum Disorder: Classification, diagnosis and therapy. *Pharmacology & therapeutics*, 190, 91–104. DOI [10.1016/j.pharmthera.2018.05.007](https://doi.org/10.1016/j.pharmthera.2018.05.007)
- Skutil, M., Havlíčková, K. and Matějčková, R. (2016). Teaching methods in primary education from the teacher's point of view. SHS Web of Conferences, 26, p.01001. DOI [10.1051/shsconf/20162601001](https://doi.org/10.1051/shsconf/20162601001).
- Stabel, V. (2022). “The Art of Teaching”—a Presentation of the Waldorf Teacher Education Study Programme at Rudolf Steiner University College in Oslo, Norway. *Prima Educatione*, 6, 197-200.
- Steiner, R. (2019). *Care for the Soul: Between Body and Spirit—Psychotherapy Founded on Anthroposophy*. Rudolf Steiner Press.
- Strickland, R. L., & Johnson, K. (2020). Culture, fairy tales, and action research. *Journal of Teacher Action Research*,7(1),80-87.
- Sun, Y. (2020). An ethnographic study of ‘Steiner Fever’ in China: Why are Chinese parents turning away from mainstream education towards the holistic ‘way’ of Steiner education? (Doctoral thesis). DOI [10.17863/CAM.48563](https://doi.org/10.17863/CAM.48563)

- Von Gleich, S. (1998). *Sources of Inspiration of Anthroposophy*. Temple Lodge Publishing.
- Waldorf World List. 2022. Directory of Steiner-Waldorf Schools, Kindergartens and Teacher Education. Centers.worldwide.-: https://www.freunde-waldorf.de/fileadmin/user_upload/images/Waldorf_World_List/Waldorf_World_List.pdf
- Wheeler, M.J. (2004). Mealtime and children on the autism spectrum: beyond picky, fussy, and fads. Articles: Indiana Resource Center for Autism: Indiana University Bloomington. Indiana Resource Center for Autism.
- Wilson, C., Brereton, M., Ploderer, B., & Sitbon, L. (2019). Co-Design Beyond Words: 'Moments of Interaction' with Minimally-Verbal Children on the Autism Spectrum. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (pp. 1-15). DOI [10.1145/3290605.3300251](https://doi.org/10.1145/3290605.3300251)
- World Population Review. (2021). Autism Rates by Country 2021. [Worldpopulationreview.com.-:https://worldpopulationreview.com/country-rankings/autism-rates-by-country](https://worldpopulationreview.com/country-rankings/autism-rates-by-country)
- Worrell, P. (2022). Creativity and Wonderment: Applying Waldorf Education to Information Literacy. *Instruction*, 61-64.
- Yan, J., Chen, F., Gao, X., & Peng, G. (2021). Auditory-motor mapping training facilitates speech and word learning in tone language-speaking children with autism: an early efficacy study. *JSLHR*, 64(12), 4664-4681. DOI [10.1044/2021_JSLHR-21-00029](https://doi.org/10.1044/2021_JSLHR-21-00029)
- Yersel, B. Ö., & Durualp, E. (2020). *Foundations of development/introduction to development*. In *Handbook of Research on Prenatal, Postnatal, and Early Childhood Development* (pp. 1-20). IGI Global.
- Zeidan, J., Fombonne, E., Scolah, J., Ibrahim, A., Durkin, M. S., Saxena, S., Yusuf, A., Shih, A., & Elsabbagh, M. (2022). Global prevalence of autism: a systematic review update. *autism research: official journal of the International Society for Autism Research*, 15(5), 778-790. DOI [10.1002/aur.2696](https://doi.org/10.1002/aur.2696)

THE REGGIO EMILIA APPROACH TO SPECIAL NEEDS CHILDREN

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Abstract

The purpose of this paper is to discover the way Reggio Emilia addresses special needs children. This research will discuss several theories from educational psychologists such as Vygotsky, Gardner, Piaget, Bronfenbrenner, Bruner, and Dewey that are used in the Reggio Emilia approach. The Reggio Emilia approach can help special needs children optimize their learning ability, facilitate learning through experience, and give them the opportunity and courage to try something new. Thus, the purpose of this article is to investigate the extent to which the Reggio Emilia approach can aid in the development of special needs children's creativity, as well as to inform the community about the form of early Reggio Emilia education for special needs children.

Keywords: Reggio Emilia approach, special needs, children, development, theories

Discipline: pedagogy

Absztrakt

A SAJÁTOS NEVELÉSI IGÉNYŰ GYERMEKEK REGGIO EMILIA JELLEGŰ MEGKÖZELÍTÉSE

A tanulmány célja annak feltárása, hogy milyen módon foglalkozik a "Reggio Emilia" a sajátos nevelési igényű gyermekekkel. A tanulmány a Reggio Emilia megközelítésben alkalmazott kutatók (például Vygotsky, Gardner, Piaget, Bronfenbrenner, Bruner és Dewey) elméleteit tárgyalja. A Reggio Emilia megközelítés segíthet a sajátos igényű gyermekek tanulási képességeinek optimalizálásában, megkönnyíti a tapasztalatokon keresztül történő tanulást és lehetőséget, bátorságot ad nekik, hogy kipróbáljanak valami újat. A cikk célja annak vizsgálata, hogy a Reggio Emilia megközelítés milyen mértékben segítheti a sajátos

nevelési igényű gyermekek kreativitásának fejlődését, valamint, hogy bemutassa a sajátos nevelési igényű gyermekek korai nevelése során alkalmazható Reggio Emilia nevelési formákat.

Kulcsszavak: Reggio Emilia megközelítés, speciális igények, gyerekek, fejlődés, elméletek

Diszciplína: pedagógia

Childhood is a time when children are eager to try new things and are curious about the world. Environment, genetics, emotions, and learning methods all play important roles in children's development which happens at their own pace. Child development, according to Santos et al. (2022), can be viewed as a series of steps and progressive stages that increase the individual's complexity. Tatalovic and Elma (2015) concur, stating that children exhibit a typical progression that includes numerous changes as they grow older which according to Ramadhanty et al., (2022) can be seen in three major areas, motor/physical, cognitive, and socio/emotional. From birth to the beginning of adulthood, the growth of a child covers various aspects such as physical, language, cognitive, and emotional (Cowie, 2019). Thus, in ensuring that children go through the development process from all aspects, especially in terms of education, various approaches and initiatives have been carried out and implemented. One of the approaches implemented by most schools in the world is to use the Reggio Emilia Approach. Generally, this amazing approach is a pedagogy that is commonly used with preschool and kindergarten students. This approach places a focus on a child-centred, self-guided constructivist curriculum that uses practical, experiential learning in relationship-driven environments. (Gallagher-Immenschuh & Broderick, 2021). Over the past decade, the Reggio Emilia approach has become more popular and more widely used in many schools. This approach is seen to be able to attract students' interest to deepen something learned and also help them gain experience from

what they do. It is common knowledge that every school has a curriculum selection that is used in the children's learning system. While glancing at the definition of the term curriculum, it can be defined as the content of learning and academics that is taught in school or any educational program. A curriculum, as defined by Kenneth et al., (2021), is a benchmark, planned series of experiences through which students develop and procure content knowledge and adapted developing skills. The curriculum is broadly defined in education as the sum of the student's experiences that transpire all across the academic opportunity and journey. A student-centred and constructivist self-guided curriculum is used in the context of the Reggio Emilia Approach curriculum, which employs self-directed, experiential learning in relationship-driven environments constantly through observation, disclosure, and play (StNicholas Early Education, 2020).

The Reggio Emilia Approach has many potential benefits and drawbacks, which will be largely determined by the quality of the teaching and learning sessions which at the same time allows students with special needs to benefit from lessons with teachers and peers. Observation, resources, and guidance from the teacher are undoubtedly important components of the learning process, and the Reggio Emilia approach allows students to work independently with their abilities and skills. Aside from that, the Reggio Emilia approach has shown to be very effective in developing children's social skills (Aden & Theodotou, 2019), particularly in terms of communication and interaction through gestures, body language, and

personal appearance, whether verbal or nonverbal. Students' ability to communicate and interact will benefit immensely their daily interactions and can indirectly make the learning process more enjoyable.

According to McNally & Slutsky (2017), every Reggio Emilia approach is based on what is around children, allowing them to explore within their learning where the environment plays a significant role in innovation. The Reggio Emilia approach can be seen as a potent strategy for fostering children's confidence as educational materials are created from resources that are readily available to children. (Vargáné, 2018)

According to Shabazian (2016), the Reggio Emilia approach can increase students' confidence when they are free to express themselves and make choices. This is also by a study conducted by Mitchiner et al., (2018) on two ASL/English bilingual schools for Deaf children, which found that the Reggio Emilia approach helped children gain confidence in expressing their thoughts and ideas. Listening to someone gives them importance and value, and it promotes self-confidence, self-worth, and pride (Rimes et al., 2018). The efficiency of the Reggio Emilia approach has indeed been demonstrated to play a major role in the growth of children, but it is unclear whether this approach is also adequate for special needs students. Children with special needs have educational needs that differ from those of the general population; they are also known as children with learning disabilities. Jo Rudy (2022) wrote an article titled "What to Say Instead of "Special Needs". Why the Term "Special Needs" Is Confusing and Offensive" states that special needs refer to physical, behavioural, emotional, or learning difficulties that necessitate some form of specialized accommodation at school, work, or in the community. The special accommodation is vital in launching special needs students' learning processes. (Seid, 2019).

Peter et al. (2013) stated that special needs are a specific clinical and functional development phase that refers to individuals who require assistance due to medical, mental, or psychological disabilities. UNICEF (2022) affirmed there are approximately 240 million children worldwide classified as having special needs, which equates to one in every ten children in the world living with disabilities and experiencing deficiencies in indicators such as health, education, and protection. Thus, the global initiative to prevent special needs children from dropping out has been inspired by the development of special needs classrooms, as well as appropriate resources and learning methods. The use of appropriate resources, such as those designed specifically for special needs children, has been shown to aid in the development of the student learning process, as evidenced by previous studies conducted on learning difficulties. Meanwhile, according to the study performed by Eskay & Oboegbulem (2013), a well-designed curriculum for special education needs children is dependent on the school administrator's ability to ensure adequate educational opportunities for students with disabilities. This includes adequate curriculum planning that focuses on activity-based learning, self-directed learning, cooperative group work, and peer learning (Okoro, 2019).

Knowing the effectiveness of the Emilia region's approach to children and seeing how this approach is gaining traction around the world, this article will look at the philosophy of Reggio Emilia that can help the development of SEN students. The following paragraph will explain the history of the Reggio Emilia approach, followed by the Reggio Emilia Approach principles. The explanation of the special needs children will be followed by the implementation of the Reggio Emilia Approach to special education students in the following subtopic. At the end of this article, a subtopic will discuss the difference between the Reggio Emilia Approach and the conventional

approach to special education needs children by listing some of the advantages and disadvantages of the two approaches.

Special Needs Children

The term "special needs" is a broad term that can be defined as individuals, particularly children, who have disabilities that limit their daily interactions. Special needs also refer to several other terms such as Special Educational Needs (SEN) and learning disabilities (LD). Section 20 Children and Families Act 2014 defines SEN as a condition in which a child has a developmental delay or complexity that necessitates special education. Learning disabilities are neurological conditions that affect spoken and written language, text comprehension, self-coordination, computation, and math problem-solving, among other math, reading, and writing skills (Binaghi Guida, 2022). These terms are ways to refer to students with disorders, in which their learning may be altered or delayed compared to other students. Spengler et al. (2016), special needs refers to a clinical diagnostic and functional development term used to describe individuals who demand guidance and assistance for any form of impairment, whether medical or psychological. It generally refers to a child's actual need, particularly in situations requiring accessibility, such as opportunities for education, transportation, work settings, government programs, public places, and housing (Disability Etiquette, n.d.).

Meanwhile, Hanurawan (2017) defines special needs as children who have a disability, health, or mental health condition that necessitates early intervention and support. According to Lee (2022, 11), in the Individuals with Disabilities Education Act (IDEA) Law 2004, there are 13 different types of special needs as protected classes have been outlined which are Autism, Deafness, Deaf/blindness, Emotional Disturbance, Hearing Impairment, Intellectual disability, Multiple Disa-

bilities, Orthopedic Impairment, Other Health Impairment, Specific Learning Disability. Speech or Language Impairment, Traumatic Brain Injury, and Visual impairment (including blindness). Fundamentally, special needs children are defined as children who are different from their peers and require assistance, particularly with learning (Mező, 2022). Mohd Ali et al. (2018), stated that it is critical to provide special needs students with assistance or services for them to get the most value from the teaching and learning process.

Theories Applied in the Reggio Emilia Approach

Loris Malaguzzi, who is the backbone of the idea of the Reggio Emilia approach, has produced a poem translating the meaning implied in this approach. The poem, "The 100 Languages" describes how children can express themselves in more than one way through drawing, carving, dramatic play, writing and drawing. It also represents the thoughts of children, who are always eager to try new things likewise with special needs children. All children, including those with special needs, can receive the same education, and there will be opportunities for students with and without disabilities to understand and learn together. According to Edwards et al., (2012) in their book titled, "The Hundred Languages of Children: The Reggio Emilia Experience in Transformation", the use of the 100 languages metaphor emphasizes the importance of providing children with one hundred ways to share their thoughts about the world around them and to demonstrate children's limitless potential. Many studies such as Allehyani (2022), Gulcicek et al., (2019), and Hong et al., (2017) have been conducted to determine how the approach of Reggio Emilia can aid in the development of educational opportunities for special needs children. This is an excellent platform for special needs children to use various representations to express their

worldviews and ideas. Therefore, in constructing the Reggio Emilia approach, Reggio educators deliberately sought, studied, discussed, and evaluated a variety of viewpoints, opinions, and theories from sociology, psychology, and educational philosophy.

Reggio Emilia scholars furthermore evaluate this approach in light of several learning theories proposed by previous theorists. Learning theories are essential since they will relate the situations and procedures that take place during learning and benefit models for designing educational programs that improve learning. These philosophies depict the steps that people go through when they implement relevant data into their mental models to make it innovative knowledge. Learning theories also analyze what inspires individuals to learn and what occasions facilitate or obstruct learning. Therefore, the Reggio Emilia approach, emphasizes the integration of ideas from various theories, including the theories from Vygotsky, Gardner, Piaget, Bronfenbrenner, Brunner and Dewey. Each of these theories will elaborate further on its effectiveness on Reggio Emilia principles. Educational theory, which includes theories of learning and instruction, explicates the fundamental frameworks of learning and teaching. Acknowledging learning theories aid teachers in reflecting on their practice, improving, reshaping, and refining their work, and according to the advancement of professionalism (Wong et al., 2019).

Vygotsky's theory, which was inspired by Lev Vygotsky, has disclosed that children develop new social and cognitive skills through social interactions with older people (Kautz et al., 2014). This is consistent with another name for this theory, Vygotsky's Sociocultural Theory, which refers to social terms that explain how learning is much more important in the context of a social process than the independent process of discovery. Vygotsky's theory, which was introduced in 1962,

has three distinct levels: cognitive, motoric, and socio-cultural. Cognitive learning is the process of thinking about concepts and ideas; motor learning is the process of doing something; and sociocultural learning is the process of interacting with others (Vygotsky, (1978). Play was seen by Vygotsky as another way for kids to learn about their socio-cultural environment. Vygotsky used the example of a boy playing with bricks to illustrate his idea. The child learns object exploitation skills while playing with the blocks, which he later used to build structures (Bjork-Willen, 2022).

The sociocultural theory of Vygotsky holds that learning is largely a social process in which the assistance of parents, caregivers, peers, and the greater society and culture plays a crucial role in the development of higher psychological processes (Silalahi, 2019).

Howard Gardner (1983) introduced the Gardner theory with the concept of Multiple Intelligences, which refers to the learning occurring through many types of intelligence, with people having varying levels of each. Multiple intelligences is a theory that outlines the various methods by which students learn and obtain information (Mahmood et al., 2022). Gardner's theory implies that people do not always possess all of their intelligence at birth and have different ways of processing data (Cook, 2021). Therefore, Gardner introduced eight different types of intelligence to broaden this concept of intelligence: 1) linguistic, 2) logical/mathematical, 3) spatial, 4) bodily-kinesthetic, 5) musical, 6) interpersonal, 7) intrapersonal, and 8) naturalist. Gardner's multiple intelligences theory has had a significant impact on how people think about human intelligence (Gardner, 1983). This theory believes people can be intelligent in different ways. Gardner contends that schools and teachers should teach in a way that encourages all types of intelligence, not just the traditional ones like linguistic and logical intelligence (Ababneh, 2021).

Research findings indicated that multiple intelligences adapted to teaching activities could outstandingly improve the ability to conspire to learn with peers (Yerizon & Putra, (2021), enhance students' learning achievement (Ndia et al.,2020), promote the motivation to learn (Hajhashemi et al., 2018) and enhance reading comprehension (Nemat,2016). Furthermore, this theory suggests that teachers should individualize instruction by identifying students' strengths and weaknesses (Elsayed, 2021).

The Theory of Cognitive Development proposed by Swiss psychologist Jean Piaget (Domingo, 2021) which is also known as Piaget's theory suggests that children progress through stages based on their ability and intelligence to perceive sophisticated relationships (Bellieni, 2022).

Piaget's theory, published in 1936, refers to a specific insight which is the involvement of growth and development in children's expanding ability to comprehend their world, and children cannot execute specific tasks until they have reached a specific level of psychological maturity (Pakpahan & Saragih, 2022). Piaget discovered that children of certain ages frequently gave the same varieties of incorrect answers, and he formulated a theory of how children's cognitive processes developed on these findings (Waite-Stupiansky, 2017). There are four stages of development suggested by Piaget's theory of cognitive development 1) sensorimotor stage: birth to 2 years, 2) preoperational stage: 2 to 7 years, 3) concrete operational stage: 7 to 11 years and 4) formal operational stage: ages 12 and up (Piaget, 1936). Teachers can use Piaget's theory in the classroom to create a great learning environment for their students by asking students to reflect on their experiences or empowering discussions regarding what is being instructed. Meanwhile, for the students, the cognitive learning that occurs during the learning session will undoubtedly boost their confidence (Daly-Smith et al., 2018)

and motivate the children to enhance the tendency for children to develop a learned inadequacy reaction when confronted with challenging problems(Yee & Braver, 2018).

Meanwhile, Urie Bronfenbrenner, a Russian-American physiologist, who developed the Bronfenbrenner theory acknowledged that every aspect of a person's environment impacted their development (Soyer, 2019). Bronfenbrenner's theory is among the most widely recognized theories that inspired social environments on human evolution. The progression of Bronfenbrenner's ecological systems theory views child development as a complex system of relationships inspired by various levels of the environment, from the contexts of immediate family and the school to more general cultural values, laws, and customs (Chuang et al., 2018). Bronfenbrenner's theory which was published in 1979 contends that your upbringing influences every aspect of your life. Bronfenbrenner also developed the Ecological Systems Theory (EST) to focus on the child's environment's quality and context. and highlighted that, the interaction within these environments becomes more complex as the child grows. According to Crawford (2020), the ecological systems theory states that humans encounter different environments throughout their lifespan that may influence children's development through five major structures; 1) micro-system (families, teachers, school, peers), 2) meso-system (communication between the parents and teachers), the 3) exosystem (neighbourhood, parent's workplaces), 4) macrosystem (socioeconomic, belief) and (5)chronosystem consist of changes in family structure and economic cycles (Bronfenbrenner, 1974, 1979).

Dewey Theory was founded by John Dewey in 1938, which holds that humans develop and evolve as a result of their interactions with the outside world. John Dewey's educational philosophy stated that children learn best when they

interact with the environment and participate in the school's learning plan (Escudero, 2022). Furthermore, based on Dewey's theory, the learning process involves pragmatism which is doing practical things that get results (Mailhot & Lachapelle, 2022).

Wang (2015) defines pragmatism as a teaching and learning approach in which students can understand and use the methods and skills needed to complete a task. In explaining the direction of this theory towards children's development, Dewey's theory has outlined four principles: (a) Learning by doing or experiential learning (b) Discussion (c) Interactive and (d) Interdisciplinary. In terms of education, the process of learning through experience or experiential learning is important and focuses on learning by doing (Almoussa & Hejazi, 2022). This theory encourages students to learn through experiences that aid in their ability to remember facts and retain information (Stang, 2022). Dewey's educational philosophy prioritizes meaningful learning activities and participation in classroom democracy. Dewey's learning theory emphasizes the significance of the creative mind in propelling thinking and learning forward, as well as teachers offering students to engage in mischievous deliberation of possibilities and experience the world.

The Theories: Principles of Reggio Emilia and Special Needs

Reggio Emilia educators agreed that the combination of theories produces the principles of effectiveness in the Reggio Emilia approach (Rinaldi, 2021). The integration of children with special needs into school systems is a global issue being addressed. As a result, some Reggio Emilia principles will look at how it can assist special needs children in their learning process and the principles are as follows:

The image of the child in Vygotsky's theory

Childhood is an essential stage in human development. This is demonstrated by Trent (2019), who reported that A child's brain develops rapidly during the first five years of life. This indicates how a child's learning relies on their age group and how a child's brain grows during the first few years of life will depend on the quality of their experiences. (Bick et al., 2022). Thus, the image of children outlined by Reggio Emilia educators is beneficial to the child's growth. According to the concept of child image (Cameron & Boyles, 2022). All children, along with children with learning disabilities who have unique personalities and learning styles, have readiness, potential, and inquisitiveness, and they are fascinated by relationships, establishing their learning, and negotiating with everything that their environment draws to them. Radhika and Kiran (2017) conducted a study on 106 children with learning disabilities to assess students' cognitive ability to classify the computer hardware, words, alphabets, different colours, and shapes. According to research findings, half of the learning-disabled children in this study can identify computer components such as monitors, keyboards, and mice, meanwhile, more than half can recognize and pronounce words and alphabets. Nevertheless, some of them had difficulty reading and writing respectable words and had difficulty giving examples of the forms in question. This demonstrates that readiness and curiosity play an important role in assisting special needs children's learning processes. Vygotsky was adamant about creating a learning environment in which students with disabilities could use "psychological tools" 13 to compensate for their disabilities (Finesilver et al., 2022). Special needs children have a significant impact on the development of social factors.

The 100 Languages in Gardner's theory

Malaguzzi (1996) wrote a poem titled "100 linguaggi" (The 100 Languages) to demonstrate how children communicate and respond to what they see around them. The 100 languages also refer to children's self-expression, in which children can express their thoughts and feelings through words, choices, or actions (Kocer, 2012). Self-expression is essential for a child's sense of identity, self-confidence, and about the world. Furthermore, this will also broaden the minds of children, allowing them to develop ideas and sharpen their cognitive skills (Nurjanah & Hardiyanti, 2020). It will also assist children in positively communicating their feelings (Bailey et al., 2020). Meanwhile, Pritzker, (2016) stated that children reveal themselves when free to express their inner needs, wants and preferences. In general, children can express themselves through play, choice, conversation (Mehrabian, 2017), art (Quaglia et al., 2015), art (Malchiodi, 2014), and writing (Fartoukh et al., 2012). It is critical to provide children with a plethora of opportunities to instil in them the confidence to speak up and be themselves. Furthermore, this will undoubtedly encourage children to take proactive steps that will allow them to express themselves in comfortable ways. Creating a welcoming learning environment for children through simple activities can go a long way toward allowing them to express themselves. Howard Gardner's multiple intelligences theory emphasizes that the human brain uses various types of intelligence or skills. Children's intelligence is the result of complex interactions between their heredity and their experiences. Children, including those with special needs, learn and express themselves in a variety of ways. Simacek et al., (2021) stated that children with learning disorders can be taught interaction skills that allow them to cope independently and increase social relationships. The National Joint Committee (NJC) for the Communicative Needs of Persons with Severe Disabilities, which issued

The Communication Bill of Rights in 1992 states that everyone has the fundamental right to influence the conditions of their 14 own existence through communication (Wofford et al., 2022). Aside from this public right, a special set of needs (Pálfi et al., 2020) and communication rights should be protected in every daily interaction that involves people with severe disabilities. The following are some of these fundamental communication rights; (a) the right to sensitive interaction with others, (b) the right to ask and know about my schedule and world, (c) the right to be taught how to communicate, (d) the right to share feelings and (e) the right to be heard and responded to. The 100 languages in special needs children are essential because they enable children to appreciate their individuality, which is a requisite constituent of developing a strong sense of self (Saroyan, 2021), as well as developing their imaginations and problem-solving skills (Rashidov, 2022).

Pedagogical Documentation in Piaget's Theory

In the Reggio Emilia Approach, the focus of documentation is on how and what children learn. The documentation usually includes samples of the children's work, photographs of children engaged in the project work and comments. (Mesquita, 2022). Other forms of documentation can include photography, tape recording, and video (Lim & Cho, 2019). Documentation can be written in several ways, including taking observation notes on what the teacher observes the child doing, or making a note of the picture, event or experience (Bingham et al., 2022). By using the theory of Piaget in the classroom for documenting children's work, teachers may develop a better understanding of their students' thinking and align their teaching strategies with their cognitive level (Erlandsson et al., 2021). According to Hostyn et al., (2020), pedagogical documentation is an essential method in special needs education

as it supports planning, implementing, assessing, and developing early childhood education. Smith & Sheridan (2019) highlighted that in terms of family participation, pedagogical documentation is essential for assisting the special needs children in their education as families become aware of their child's experiences at kindergarten and get opportunities to contribute to the activities. Simultaneously, it will help the teachers to know the group of children, their interests, thoughts, skills, potentialities and ways of participation (Heiskanen et al., 2019).

Many Reggio Emilia institutes have been built in countries around the world, including Italy, Sweden, Norway and Denmark to display the results of 15 children's work and, in turn, indirectly open the world's eyes to how documenting the results of children's work can benefit the world.

Community influences in Bronfenbrenner's theory

Community connections play an important role in social development and it is also an element that greatly influences children's environment. According to Froli et al., (2022), the presence of community relations provides children with a sense of belonging and aids in the development of social and other skills. Gulleng, (2021), a community is emphasized as a group of people who share a common geographical, social and cultural life pattern and have a relatively interdependent livelihood. The community entails the distinct sections in the branch and the way they interact to acquire the outcome which could promote the culture that exists inside the organization. (Dankwa, 2020). According to Wenger (2021), community connections for children may include extended family and friends, neighbours, and members of local organizations. Different community connections provide different advantages to children (Chawla, 2015) and children's confidence can also be bolstered by strong social connections, which can lead to new friendships.

(Hino, 2012). Reupert et al., (2022) stated that the prominent proverb, it takes a village to raise a child, which comes from an international conference held in Oslo, 2018 produces a clear message which means that the entire community plays a salient responsibility in the growth and development of its younger generations.

The importance of community in children's learning process can be linked to Bronfenbrenner's theory, which states that a series of environmental and personal contexts can affect a child's development (Antony, 2022). This coincides with a study done by Egilson et al., (2016) in which to gain new experiences and interactions for children with Autism Spectrum Disorder with other people and environments, the family should participate in the community. At the same time, the community would help children have the opportunity to generalize current skills (Jamaluddin et al., 2021). In general, children with disabilities have the same social needs as children without disabilities. They require love and respect while playing and exploring their surroundings with other children and adults. To ensure that these special children feel valued and accepted in the community. Opportunities are required for children to develop and use their bodies and minds to the best of their abilities.

Parental participation and involvement in Bruner's theory

Parental involvement in children's education is believed to benefit children's development. Parental involvement, as defined by Gachari et al. (2012), is the participation of parents in all aspects of education and child development. Parents participate in school activities by attending Parent-Teacher meetings, assisting their children with homework, and participating in a variety of other school activities. Parental involvement according to Estrada-Chichon (2022) is defined as an action that encourages parents to assist their children with various tasks and activities that support their

children's maturity and educational development at home, usually by the learning guidelines suggested by the teacher. Thus, the involvement of parents in special needs children's education has an indirect positive effect on the development of these children's education (Boonk et al., 2018). The parent is regarded as an essential resource for the child's learning in the Reggio approach. Parents and teachers must exchange ideas to create a more positive and productive learning environment. A book written by Van Voorhis et al., (2013) shows that regardless of their origin or socioeconomic status, students who have involved parents are more likely to have better grades and test scores, attend school regularly, have greater social skills, exhibit improved behaviour, and adjust well to school.

The Bruner theory, according to Rannikmae et al. (2020), asserted that when kids begin learning new concepts, they need assistance from teachers and other adults in the form of active support. The research shows that children whose parents are involved in school will have thicker skin and are more responsible for their achievement in schoolwork than children on their own. (Lara & Saracosti, 2019). Parent involvement activities include conferring a journal or log for homework that parents sign upon accomplishment (Kung & Lee, 2016), sending students home with notes on what they did well and where they can improve (Nunez et al., 2015), and sending a class newsletter home with curriculum themes and highlights (Okeke, 2014). A study conducted by Balli (2016) 17 on the involvement of parents in the education of special needs children stated that parents should be more intensive in assisting, accompanying, and guiding their children, particularly children with special needs, to improve their motivation and academic achievement. Furthermore, Wang & Sheikh-Khalil, (2014) explained that parental participation also helps special needs children feel cherished by their

parents, demonstrating behavior improvement in schools such as communication, empathy, and conflict resolution. (Thomas et al., 2020), and production communication between the teacher and the parent can oblige the school about the student (Fishman & Nickerson, 2015). Children with special needs require more attention than other children. The involvement of teachers in schools certainly benefits all parties involved, including the teacher, the children, the school, and the parents. Parents should not undervalue their involvement in their children's learning processes because parents are the primary pillar in the learning processes of special needs students.

Learning exploration by project in Dewey theory

The Reggio Emilia Approach has observed that children learn quickly when they are involved in a project that is well structured to accomplish a specific goal (Asy'ari & Rachmawati, 2022). This approach uses a "child-developed curriculum" as opposed to a "child-prepared curriculum" where children create projects based on their areas of interest. The Reggio Emilia project framework has several distinctive qualities and components, including a guided inquiry (Senent et al., 2022), multimodal learning, (Brandao & Theodotou, 2020) symbolic representations (Mikati, 2019) and a holistic approach (Miller, 2019). These factors led to the conclusion that the Reggio Emilia Approach can be classified as a project-based learning (PBL) strategy. Thus, PBL is an effective teaching strategy that has numerous advantages for students, including the development of critical thinking (Umar & Ko, 2022) and building self-confidence (Yuliansyah & Ayu, 2021). Dewey's theory has developed a concept of 'learning by doing' which relates to the project-based learning methodology. Learning by doing is when children engage in an activity practically as they learn by doing, which gives them the chance to learn more. According to Bruce, & Bloch (2012), peop-

le understand their experiences when they produce things and explore their surroundings. This is also an 18 designation applied to a wide range of educational circumstances as well as a pedagogical strategy used by teachers to encourage their students to engage in more practical and innovative forms of learning. Numerous studies have shown that project-based learning is associated with giving special needs children the opportunity such as to use creative thinking skills to innovate new projects (Eldiva & Azizah, 2019), enhancing classroom engagement (Arntzen, 2018), and provide teachers with the possibility to forge closer bonds with their students by serving as facilitators of active learning (Lopez & Corcoran, 2014). This is also supported by a study conducted by Cevik & Uredi (2016) where the results of a study on Mild Intellectual Disability (MID) children show an increase in academic achievement and a positive attitude towards project-based learning. There is no doubt that project-based learning appears to help children become comfortable with obstructions by developing strong problem-solving skills and self-confidence, as a reflection on one's conclusions is essential in a continuous inquiry process. This extended learning is possible because children are working to solve real-world problems that are important to them, and it allows for deep learning and comprehension understanding of topics and concepts.

The environment is the third teacher in Vygotsky and Piaget's theory

Educators are very concerned and agree that what is around children will influence their learning development process (Cade et al., 2022). Therefore, creating a community of shared relationships between students, teachers, and parents in the classroom as well as a feeling of place in the world is one of the most potent and crucial aspects of implementing the Reggio Emilia approach. The ambience is seen as the third teacher

as it contributes numerous opportunities for children to explore, experiment, develop and their ideas (Feliu-Torruella, 2021). It should be a place for research and encourage collaboration and communication. Therefore, learning through this environment has been applied in the Reggio Emilia Approach based on Vygotsky's theory and also Piaget's theory where these two theories state that environmental factors affect the development and progress of a child. Two examples of environmental factors in children's development are the physical environment (Schell & Rousham, 2022) and the psychosocial environment (Burke et al., 2018). According to Debele (2015), the school's 19 physical environments include buildings, laboratories, equipment, classroom furniture, teaching materials, libraries, and playgrounds. A conducive and exciting learning environment is created in large part by the physical setting of the classroom. A study conducted by Iswari et al., (2020) which focuses on the learning environment for special needs children shows that friendly schools can optimally develop the potential of students with special needs from a wide variety of students. Another study on the impact of the environment on special needs children can be found in Alnahdi's (2014) study, which stated that assistive technology plays an important part in the learning progress of special needs children. Meanwhile, peers are referred to as the psychosocial environment, which is also closely related to learning motivation. There is no doubt that special needs children's daily interactions in the classroom influence their learning development. This is supported by a study on special education needs children conducted by Louick & Muenks (2022), the findings of which show that the influence of peers is very important in providing interaction and motivation during the learning process in the classroom. Syukri & Humaera (2019) conducted research on the employment of teaching aids such as flashcards,

foldable books, and posters in the subject of English for special needs children, and the findings revealed that this method ultimately increases students' motivation. Students with disabilities frequently experience higher levels of stress, anxiety, depression, and other emotional trauma. All of these factors can have a significant influence on their self-esteem and ability to learn and focus in school. As a result, motivation is critical in the development of special needs children.

Conclusion

The learning theories and the Reggio Emilia Approach continue to influence education today on many levels, notably for kids with special needs. To better understand how the Reggio Emilia theory might help children with exceptional needs develop conceptual understanding and knowledge systems, this article was prepared. The Reggio Emilia approach has gained acceptance as a foundation for instruction in kindergarten classrooms in some nations. By the theories previously discussed, the Reggio Emilia approach was associated with special needs children by employing both pragmatic and scientific ways to advance education. Each hypothesis offered includes remarks on how it helps children with unique needs. Children with special needs benefit from a more enjoyable learning environment and the freedom to select the learning style they prefer thanks to the uniqueness of the Reggio Emilia approach. The approach used in the Reggio Emilia approach establishes a curriculum and learning environment that removes all significant distractions, giving the special needs students the ability to concentrate on what is being taught and producing a more beneficial learning environment. The key ideas in the aforementioned theories are that learning and information acquisition need to take place in appropriate environments and socially secure circumstances.

Teachers must therefore consider how important the classroom atmosphere is to their special needs students. The Reggio Emilia teachers design specialized lesson plans for each kid based on their observations of them. Parents and educators discuss the benefits of including special needs kids in Reggio Emilia classrooms for discipline, self-assurance, and growth. The Reggio Emilia educational approach integrates all five senses into a child's development and learning process. In addition to being connected to memory and the capacity to retain or continue learning, the senses work together to provide special needs children with a comprehensive picture of their experiences.

References

- Ababneh, S. (2021). Jordanian EFL Students' Types of Intelligence in Learning English. *Journal of Education and E-Learning Research*, 8(3), 360–366. DOI [10.20448/journal.509.2021.83.360.366](https://doi.org/10.20448/journal.509.2021.83.360.366)
- Aden, F., & Theodotou, E. (2019). Reggio Emilia and the arts approach: Two exceptional examples of multimodal learning in early years. *Journal of Global Education and Research*, 3(2), 158–167. DOI [10.5038/2577-509x.3.2.1050](https://doi.org/10.5038/2577-509x.3.2.1050)
- Allehyani, S. H. (2022). Equity, diversity and inclusion: practitioners' perspectives toward reforming early childhood curriculum in Saudi Arabia. *International Journal of Special Education*, 37(3), 15448-15480.
- Almousa, M., & Hejazi, M. T. (2022). Toward learning organizations and organizational growth: perspectives on experiential learning and organizational learning. *Journal of Positive School Psychology* 6. (5). 5212–5229.
- Alnahdi, Ghaleb. (2014). Assistive technology in special education and the universal design for learning. *Turkish Online Journal of Educational Technology*. 18-23.
- Antony, E. M. (2022). Framing childhood resilience through Bronfenbrenner's ecological sys-

- tems theory: a discussion paper. *Cambridge Educational Research e-Journal*, 9, 244-257. DOI [10.17863/CAM.90564](https://doi.org/10.17863/CAM.90564)
- Arntzen, M. E. (2018) Project-based learning instructional design and the benefits it brings to modern classrooms specifically in special education. All Electronic Theses and Dissertations. Bethlen University.
- Asy'ari, S. M., & Rachmawati, Y. (2022). Discovering the properties of light through the ray of light learning in the Reggio Emilia approach in early childhood education. In 6th International Conference Of Early Childhood Education (Icece-6 2021) 67-73. Atlantis Press. DOI [10.2991/Assehr.K.220602.015](https://doi.org/10.2991/Assehr.K.220602.015)
- Bailey, E. R., Matz, S. C., Youyou, W., & Iyengar, S. S. (2020). Authentic self-expression on social media is associated with greater subjective well-being. *Nature Communications*, 11(1), 1-9. DOI [10.1038/S41467-020-18539-W](https://doi.org/10.1038/S41467-020-18539-W)
- Balli, D. (2016). Importance of parental involvement to meet the special needs of their children with disabilities in regular schools. *Academic Journal of Interdisciplinary Studies*, 5. (1). 147-152. DOI [10.5901/Ajis.2016.V5n1p147](https://doi.org/10.5901/Ajis.2016.V5n1p147)
- Belliemi, C. V. (2022). The models of mental growth. *A New Holistic-Evolutive Approach to Pediatric Palliative Care*, 49-54. DOI [10.1007/978-3-030-96256-2_7](https://doi.org/10.1007/978-3-030-96256-2_7)
- Bick, J., Lipschutz, R., Tabachnick, A., Biekman, B., Katz, D., Simons, R., & Dozier, M. (2022). Timing of adoption is associated with electrophysiological brain activity and externalizing problems among children adopted internationally. *Developmental Psychobiology*, 64(4), DOI [10.1002/Dev.22249](https://doi.org/10.1002/Dev.22249)
- Binaghi, G., & Guida, M. (2021). Psychoeducational strategies in school context to support students with specific learning disorders in a sample of children aged 6 to 16. In Y. Kats & F. Stasolla (Eds.), *Education and technology support for children and young adults with ASD and learning disabilities* (pp. 51-72). DOI [10.4018/978-1-7998-7053-1.ch004](https://doi.org/10.4018/978-1-7998-7053-1.ch004)
- Bingham, G. E., Gerde, H. K., Pikus, A. E., Rohloff, R., Quinn, M. F., Bowles, R. P., & Zhang, X. Y. (2022). Examining teachers' early writing knowledge and practices. *Reading and Writing*, 35, 2201-2227. DOI [10.1007/s11145-022-10299-x](https://doi.org/10.1007/s11145-022-10299-x)
- Bjork-Willén, P. (2022). Preschool children's pretend play is viewed from a & Vygotskian and a Piagetian perspective. In: Veraksa, N., Pramling Samuelsson, I. (Eds) *Piaget and Vygotsky in XXI Century. Early Childhood Research And Education: An Inter-Theoretical Focus*, 4. DOI [10.1007/978-3-031-05747-2_7](https://doi.org/10.1007/978-3-031-05747-2_7)
- Boonk, L., Gijsselaers, H. J., Ritzen, H., & Brand-Gruwel, S. (2018). A review of the relationship between parental involvement indicators and academic achievement. *Educational Research Review*, 24, 10-30. DOI [10.1016/J.Edurev.2018.02.001](https://doi.org/10.1016/J.Edurev.2018.02.001)
- Bronfenbrenner, U. (1974). Developmental research, public policy, and the ecology of childhood. *Child Development*, 45 (1), 1-5.
- Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, 32 (7), 513.
- Burke, S. E., Sanson, A. V., & Van Hoorn, J. (2018). The psychological effects of climate change on children *Current Psychiatry reports*, 20(5), 1-8. DOI [10.1007/s11920-018-0896-9](https://doi.org/10.1007/s11920-018-0896-9)
- Bruce, B.C., Bloch, N. (2012). Learning by doing. in: seel, n.m. (eds) *Encyclopedia of the sciences of learning*. Springer, Boston, Ma. DOI [10.1007/978-1-4419-1428-6_544](https://doi.org/10.1007/978-1-4419-1428-6_544)
- Cade, J., Wardle, F., & Otter, J. (2022). Toddler and preschool teachers' beliefs and perceptions about the use of developmentally appropriate practice. *Cogent Education*, 9(1), 2018908. DOI [10.1080/2331186x.2021.2018908](https://doi.org/10.1080/2331186x.2021.2018908)
- Cameron, K., & Boyles, D. (2022). Learning and teaching in a neoliberal era: the tensions of en-

- gaging in froebelian-informed pedagogy while encountering quality standards. *Global Education Review*, 9(2), 99-117.
- Cappelli, G., Vasta, M. A (2021). The silent revolution: school reforms and Italy's educational gender gap in the liberal age (1861–1921). *Clometrica* 15, 203–229. DOI [10.1007/S11698-020-00201-6](https://doi.org/10.1007/S11698-020-00201-6)
- Cevik, M., & Uredi, F. (2016). Effects of the project-based learning on academic achievement and attitude of students with mild intellectual disability in life science course. *International Journal Of Learning And Teaching*. 8(2), 90-99. DOI [10.18844/Ijlt.V8i2.754](https://doi.org/10.18844/Ijlt.V8i2.754)
- Chawla, L. (2015). Benefits of nature contact for children. *Journal of Planning Literature*, 30(4), 433-452. DOI [10.1177/0885412215595441](https://doi.org/10.1177/0885412215595441)
- Chuang, S. S., Glozman, J., Green, D. S., & Rasmi, S. (2018). Parenting and family relationships in Chinese families: a critical ecological approach. *Journal of Family Theory & Review*, 10(2), 367-383. DOI [10.1111/Jftr.12257](https://doi.org/10.1111/Jftr.12257)
- Cook, W. S. (2021). The intelligence concept and racial classification as sociological products of Western education. *Sociology Compass*, 15(12). DOI [10.1111/Soc4.12941](https://doi.org/10.1111/Soc4.12941)
- Cowie, H. (2019). *From birth to sixteen: children's health, social, emotional and linguistic development*. Routledge.
- Crawford, M. (2020). ecological systems theory: exploring the development of the theoretical framework as conceived by Bronfenbrenner. *J Pub Health Issue Pract*, 4(2), 170. DOI [10.33790/Jphip1100170](https://doi.org/10.33790/Jphip1100170)
- Dankwa, K. D. (2020). Deciphering the myth about non-compliance and its impact on cyber security and safety. *Modern Theories And Practices For Cyber Ethics And Security Compliance* (pp. 59-72). IGI Global.
- Daly-Smith, A. J., Zwolinsky, S., Mckenna, J., Tomporowski, P. D., Defeater, M. A., & Manley, A. (2018). Systematic review of acute physically active learning and classroom movement breaks on children's physical activity, cognition, academic performance and classroom behaviour: understanding critical design features. *Bmj Open Sport & Exercise Medicine*, 4(1). DOI [10.1136/Bmjsem-2018-000341](https://doi.org/10.1136/Bmjsem-2018-000341)
- Debele, A.F. (2015). The study of the physical environment of the primary schools to implement inclusive education: the case of Addis Ababa, Ethiopia. *International Journal of Sciences: Basic and Applied Research*. 24, 54-67.
- Dewey, J. (1938). *Experience and Education*. New York: Macmillan Company.
- Domingo, J. G. (2021). Cognitive skills achievement in mathematics of the elementary pre-service teachers using Piaget's seven logical operations. *Turkish Journal of Computer and Mathematics Education (Turcomat)*. 12(4), 435-440. DOI [10.17762/Turcomat.V12i4.524](https://doi.org/10.17762/Turcomat.V12i4.524)
- Edwards, C. P., Lella, G., & Forman, G. E. (2012). *The hundred languages of children: the Reggio Emilia experience in transformation*. Praeger, Cop.
- Egilson, Snaefridur & Jakobsdóttir, Gunnhildur & Ólafsson, Kjartan & Leosdottir, Thora. (2016). Community participation and environment of children with and without autism spectrum disorder: Parent Perspectives. *Scandinavian Journal of Occupational Therapy*. 24(3), 187-196 DOI [10.1080/11038128.2016.1198419](https://doi.org/10.1080/11038128.2016.1198419)
- Eldiva, F. T, & Azizah, N. (2019). Project-based learning in improving critical thinking skill of children with special needs. *Proceedings of the International Conference on Special and Inclusive Education (ICSIE 2018)*, 296. 348-355. DOI [10.2991/Icsie-18.2019.64](https://doi.org/10.2991/Icsie-18.2019.64)
- Elsayed, A. M. A., Abbas, R. E. S., & Abdou, M. S. A. (2021). Can an educational activity program based on Feuerstein's program and Gardner's theory increase excellence and creativity in math in Omani students? *Fnu Journal Of Social Sciences*, 15(3). 1. DOI [10.51709/19951272/Fall-2021/1](https://doi.org/10.51709/19951272/Fall-2021/1)

- Erlandsson, M., Gustavsson, C., & Karlsudd, P. I. (2021). An unclear task? the perspectives of Swedish preschool and special needs teachers on their role in assessing and documenting child development. *disability, Cbr & Inclusive Development*, 32(2), 30-50. DOI [10.47985/dcidj.457](https://doi.org/10.47985/dcidj.457)
- Escudero, J. C. (2022). The Influence of Educators, Followers of John Dewey's Educational Thought, in the Chilean School System: Irma Salas, Amanda Labarca, and Darío Salas. *Teachers College Record*, 124(10), 134–154. DOI [10.1177/01614681221137148](https://doi.org/10.1177/01614681221137148)
- Eskey, M.E., & Oboegbulem, A.I. (2013). Designing appropriate curriculum for special education in an urban school in Nigeria: *US-China Education Review A*, 3 (4). 252-258.
- Estrada-Chichon, J. (2022). Parental involvement in EFL learning with preprimary children: shaping the features of video tutorials. DOI [10.4018/978-1-7998-8405-7.Ch022](https://doi.org/10.4018/978-1-7998-8405-7.Ch022)
- Fartoukh, M., Chanquoy, L., & Piolat, A. (2012). Effects of emotion on writing processes in children. *Written Communication*, 29(4), 391-411. DOI [10.1177/0741088312458640](https://doi.org/10.1177/0741088312458640)
- Finesilver, C., Healy, L., Bauer, A. (2022). Supporting diverse approaches to meaningful mathematics: from obstacles to opportunities (50-75). In Xin, V.P., Tzur, R., Thouless, H. (eds) *Enabling mathematics learning of struggling students. Research in Mathematics Education*. Springer, Cham.
- Fishman, C. E., & Nickerson, A. B. (2015). Motivations for involvement: A preliminary investigation of parents of students with disabilities. *Journal Of Child And Family Studies*, 24(2), 523-535. DOI [10.1007/S10826-013-9865-4](https://doi.org/10.1007/S10826-013-9865-4)
- Feliu-Torruella, M., Fernández-Santín, M., & Atenas, J. (2021). Building relationships between museums and schools: Reggio Emilia as a bridge to educate children about heritage. *Sustainability*, 13(7), 3713. DOI [10.3390/Su13073713](https://doi.org/10.3390/Su13073713)
- Frolli, A., Savarese, G., Di Carmine, F., Bosco, A., Saviano, E., Rega, A., Carotenuto, M. & Ricci, M. C. (2022). Children on the autism spectrum and the use of virtual reality for supporting social skills. *Children (Basel)*, 9(2):181. DOI [10.3390/children9020181](https://doi.org/10.3390/children9020181)
- Gachari, R., Kinuthia, J. & Wambua, B. (2021). Parental engagement in school an educational programmes for immigrant learners. 1-16. DOI [10.4018/978-1-7998-4712-0.Ch011](https://doi.org/10.4018/978-1-7998-4712-0.Ch011)
- Gallagher-Immenschuh, C. K., & Broderick, M. (2021). Crystallizing moments: teacher-student interaction and engagement in online primary grades education. In *Handbook of Research On Transforming Teachers' Online Pedagogical Reasoning for Engaging K-12 Students in Virtual Learning* (Pp. 212-235). IGI Global.
- Gardner, H. (1983). *Frames of Mind: a Theory of Multiple Intelligences*. New York: Basic Books.
- Gulcicek, T, Tonga F. E., And Erden F. (2019). Examining Turkish early childhood education curriculum in terms of mainstream curriculum models. *OMÜ Eğitim Fakültesi Dergisi*, 77–106, DOI: [10.7822/omuefd.604939](https://doi.org/10.7822/omuefd.604939)
- Gulleng, D. (2021). Reform the police and end the violence: what works between community policing and state police in north-central Nigeria.21. DOI [10.4018/978-1-7998-6884-2.Ch006](https://doi.org/10.4018/978-1-7998-6884-2.Ch006)
- Hajhashemi, K., Caltabiano, N., Anderson, N., & Tabibzadeh, S. A. (2018). Multiple intelligences, motivations and learning experiences regarding video-assisted subjects in a rural university. *International Journal of Instruction*, 11, 167-182. DOI [10.12973/Iji.2018.11112a](https://doi.org/10.12973/Iji.2018.11112a)
- Hanurawan, F. (2017). The role of psychology in special needs education. *Journal of Icsar*. DOI [10.17977/Um005v1i22017p180](https://doi.org/10.17977/Um005v1i22017p180)
- Heiskanen, N., Alasuutari, M., & Vehkakoski, T. (2019). Recording support measures in the sequential pedagogical documents of children with special education needs. *Journal Of Early*

- Intervention*, 41(4), 321-339. DOI [10.1177/1053815119854997](https://doi.org/10.1177/1053815119854997)
- Hino, K., Shiraishi, Y., Hoshi, T. & Ikaga, T. (2012). Factors of children's participation in community activities and structural relationship to their health. *Journal of Architecture and Planning (Transactions Of Aija)*. 77(679). 2119-2125. DOI [10.3130/Aija.77.2119](https://doi.org/10.3130/Aija.77.2119)
- Hong, S. B., Shaffer, L., & Han, J. (2017). Reggio Emilia inspired learning groups: relationships, communication, cognition, and play. *Early Childhood Education Journal*, 45(5), 629-639. DOI [10.1007/s10643-016-0811-0](https://doi.org/10.1007/s10643-016-0811-0)
- Hostyn, I., Mäkitalo, A. R., Hakari, S., & Vandenbussche, L. (2020). The professional actuation of pedagogical documentation in Belgian and Finnish early childhood education settings. *Early Child Development And Care*, 190(3), 400-413. DOI [10.1080/03004430.2018.1475368](https://doi.org/10.1080/03004430.2018.1475368)
- Iswari, M., Marlina, M., Nurhastuti, A, Murni, I & Armaini, N. (2020). Friendly inclusive environment toward learning in inclusive education. *Atlantis Press*. 86-92. DOI [10.2991/Assehr.K.200217.018](https://doi.org/10.2991/Assehr.K.200217.018)
- Jamaluddin, R., Sapak, M., Abd Kadir, S., Mohd H., Syahidatul K. & Kamis, A. (2021). The implementation of vocational skills in teaching and learning of people with disabilities in the community-based rehabilitation centre (cbrc): a review from ecological environments perspective. *Universal Journal Of Educational Research*. 9. 1877-1885. DOI [10.13189/Ujer.2021.091107](https://doi.org/10.13189/Ujer.2021.091107)
- Jo Rudy, L. (2022). *What To Say Instead Of "Special Needs."* Verywell Family.
- Kautz, T., Heckman, J., Diris, R., Weel, B. & Borghans, L. (2014). Fostering and measuring skills: improving cognitive and non-cognitive skills too. promote lifetime. success. *SSRN Electronic J.* 1-18. DOI [10.2139/ssrn.2543890](https://doi.org/10.2139/ssrn.2543890)
- Kenneth W., Adjei B., Asante, E., Asare, A. & Ohemeng, A. (2021). Enhancing graduate employability skills: a case for e-learning environment in higher education delivery enhancing graduate employability skills: a case for e-learning environment in higher education delivery. *European Academic Research*. 9. 3209- 3229. DOI [10.1080/02602938.2021.1897086](https://doi.org/10.1080/02602938.2021.1897086)
- Kocer, H. (2012). The evaluation of the art activities applied in preschool education programmes in terms of self-expression opportunity given to child. *Procedia-Social And Behavioral Sciences*, 51, 289-295. DOI [10.1016/J.Sbspro.2012.08.161](https://doi.org/10.1016/J.Sbspro.2012.08.161)
- Kung, H. Y., & Lee, C. Y. (2016). Multidimensionality of parental involvement and children's mathematics achievement in Taiwan: the mediating effect of math self-efficacy. *Learning And Individual Differences*, 47, 266-273. DOI [10.1016/J.Lindif.2016.02.004](https://doi.org/10.1016/J.Lindif.2016.02.004)
- Lara, L., & Saracosti, M. (2019). Effect of parental involvement on children's academic achievement in Chile. *Psychology*, 10, 1464. DOI [10.3389/Fpsyg.2.019.01464](https://doi.org/10.3389/Fpsyg.2.019.01464)
- Lim, S., & Cho, M. H. (2019). Parents' use of mobile documentation in a Reggio Emilia-inspired school. *Early Childhood Education Journal*, 47(4), 367-379. DOI [10.1007/S10643-019-](https://doi.org/10.1007/S10643-019-)
- Lee, A. (2022). *IDEA Disability Categories*. <https://www.understood.org/en/articles/conditions-covered-under-idea>.
- Louick, R., & Muenks, K. (2022). Leveraging motivation theory for research and practice with students with learning disabilities. *Theory into Practice*, 61(1), 102-112. DOI [10.1080/00405841.2021.1932154](https://doi.org/10.1080/00405841.2021.1932154)
- Lopez, C, & Corcoran, T. (2014). Relationships with special needs students: exploring primary teachers' descriptions. *International Journal of Inclusive Education*. 18. DOI [10.1080/13603116.2014.897385](https://doi.org/10.1080/13603116.2014.897385)
- Mailhot, C., & Lachapelle, M. D. (2022). Teaching management in the context of grand challenges: a pragmatist approach. *Management Learning*, DOI [10.1177/13505076221116991](https://doi.org/10.1177/13505076221116991)

- Mahmood, M. D., Raheem, B. R., & Nehal, R. (2022). Developing multiple intelligences through different learning styles: an integrated approach to learner-centered pedagogy. *Journal La Edusci*, 3(1), 13-17. DOI [10.37899/Journallaedusci.V3i1.634](https://doi.org/10.37899/Journallaedusci.V3i1.634)
- Malaguzzi, L. (1996). *The Hundred Languages of Children: The Reggio Emilia approach to early childhood education*. New Jersey: Ablex Publishing Corporation.
- Malchiodi, C. (2014). *Breaking the silence: Art therapy with children from violent homes*. Routledge.
- McNally, S. A., & Slutsky, R. (2017). Key elements of the reggio emilia approach and how they are interconnected to create the highly regarded system of early childhood education. *Early Child Development And Care*, 187(12), 1925-1937. DOI [10.1080/03004430.2016.1197920](https://doi.org/10.1080/03004430.2016.1197920)
- Mehrabian, A. (2017). *Communication without words*. Communication Theory (Pp. 193-200). Routledge.
- Mesquita, C. (2022). Substantiation of the invisible: pedagogical documentation as professional development support. *European Early Childhood Education Research Journal*, 30(2), 239-250. DOI [10.1080/1350293X.2022.2046835](https://doi.org/10.1080/1350293X.2022.2046835)
- Mező, K (2022). Students with Learning Disabilities and the Learning Support Mechanism of Educators during the COVID-19 Pandemic. *Hungarian Journal of Disability Studies & Special Education* 2022/2 | Special Issue. 16-24. DOI [10.31287/FT.en.2022.2.3](https://doi.org/10.31287/FT.en.2022.2.3)
- Mikati, M. (2019). An Italian fusion: a comparison between a Montessori and a Reggio-Emilia approach to early childhood education (Doctoral Dissertation, California State University, Northridge).
- Miller, V. (2019). Creating the third teacher through participatory learning environment design: Reggio Emilia principles support student wellbeing. *School Spaces for Student Wellbeing and Learning* (239-258). Springer, Singapore. DOI [10.1007/978-981-13-6092-3_13](https://doi.org/10.1007/978-981-13-6092-3_13)
- Mitchiner, J., Batamula, C. & Kite, B. J. (2018). Hundred languages of deaf children: exploring the Reggio Emilia approach in deaf education. *American Annals of the Deaf*. DOI [10.1353/aad.2018.0021](https://doi.org/10.1353/aad.2018.0021)
- Mohd. A., Manisah Ahmad, Tarmizi, Salleh, Norshidah & Majid, Rosadah. (2018). Learning support for students with special needs at a public university from the perspective of non-academic staff. *Journal Of Icsar*. 2. 78-81. DOI [10.17977/Um005v2i12018p078](https://doi.org/10.17977/Um005v2i12018p078)
- Ndia, L., Solihatin, E., & Syahrial, Z. (2020). The effect of learning models and multiple intelligences on mathematics achievement. *International Journal of Instruction*, 13(2), 285-302. DOI [10.29333/Iji.2020.13220a](https://doi.org/10.29333/Iji.2020.13220a)
- Nemat Tabrizi, A. R. (2016). Multiple intelligence and EFL learners' reading comprehension. *Two Quarterly Journal Of English Language Teaching And Learning University Of Tabriz*, 8(18), 199-221.
- Nunez, J. C., Suárez, N., Rosário, P., Vallejo, G., Valle, A., & Epstein, J. L. (2015). relationships between perceived parental involvement in homework, student homework behaviours, and academic achievement: differences among elementary, junior high, and high school students. *Metacognition And Learning*, 10(3), 375-406. DOI [10.1007/S11409-015-9135-5](https://doi.org/10.1007/S11409-015-9135-5)
- Nurjanah, N. E., & Hardiyanti, W. D. (2020, September). playing through painting activities to stimulate early childhood creativity. *Proceedings of The 4th International Conference On Learning Innovation and Quality Education* 1-4. DOI [10.1145/3452144.3452232](https://doi.org/10.1145/3452144.3452232)
- Okeke, C. I. (2014). Effective home-school

- partnership: some strategies to help strengthen parental involvement. *South African Journal Of Education*, 34(3). DOI [10.15700/201409161044](https://doi.org/10.15700/201409161044)
- Okoro, C. U. (2019). Activity-based learning strategies and academic achievement of social studies students in Obio/Akpor local government area. *International Journal Of Education And Evaluation*, 5(1), 19-24.
- Pakpahan, F. H., & Saragih, M. (2022). Theory of cognitive development by Jean Piaget. *Journal Of Applied Linguistics*, 2(2), 55-60. DOI [10.52622/Joal.V2i2.79](https://doi.org/10.52622/Joal.V2i2.79)
- Piaget, J. (1936). *Origins of intelligence in the child*. London: Routledge & Kegan Paul.
- Pritzker, S. E. (2016). New age with Chinese characteristics? translating inner child emotion pedagogies in contemporary China.
- Quaglia, R., Longobardi, C., Iotti, N. O., & Prino, L. E. (2015). A new theory on children's drawings: analyzing the role of emotion and movement in graphical development. *Infant Behavior Development*, 39, 81-91. DOI [10.1016/j.infbeh.2015.02.009](https://doi.org/10.1016/j.infbeh.2015.02.009)
- Radhika, S. & Kiran, V.. (2017). Cognitive development of children with learning disabilities: an intervention study. *International Journal of Educational Science and Research (IJESR)*. 7 (4). 53-60
- Ramadhanty, E., Wulandari, R. T., & Tirtaningsih, M. T. (2022). Abhinaya circuit video media in online learning to train physical-motor ability of early childhood: a developmental studies. *Child Education Journal*, 4(1), 38-49. DOI [10.33086/Cej.V4i1.2824](https://doi.org/10.33086/Cej.V4i1.2824)
- Rannikmae, M., Holbrook, J., & Soobard, R. (2020). Social constructivism Jerome Bruner. *Theory And Practice (Pp. 259-275)*. Springer, Cham. DOI [10.1007/978-3-030-43620-9_18](https://doi.org/10.1007/978-3-030-43620-9_18)
- Reupert, A, Shulamith L., Straussner, Bente Weimand, & D. Maybery. (2022)"It takes a village to raise a child: understanding and expanding the concept of the "village"." *Frontiers in Public Health* 10. DOI [10.1007/978-3-030-43620-9_18](https://doi.org/10.1007/978-3-030-43620-9_18)
- Rimes, J., Gilkes, D., & Thorpe, L. (2018). Hundreds of messages on a leaf: inspirations from Reggio Emilia. In *Evidence-Based Learning and Teaching (Pp. 99-112)*. Routledge.
- Rinaldi, C. (2021). *In dialogue with Reggio Emilia: listening, researching and learning*. Routledge.
- Santos, M.& Peres, C. & Schmitt, M. & Peres, A. (2022). Digital game design tutorial for use in the basic school: a pedagogical proposal. *IGI Global*. DOI [10.4018/978-1-6684-3710-0.Ch033](https://doi.org/10.4018/978-1-6684-3710-0.Ch033)
- Pálfi, S.; Rákó, E. ; Varga Nagy, A. ; & Teszenyi, E. (2020): Children's rights in Hungary in early childhood education and care In: Jane, Murray; Beth, Blue Swadener; Kylie, Smith (edit) *The Routledge Handbook of Early Childhood Rights*. London, Routledge of Taylor and Francis Group. pp. 354-365.
- Saroyan, J. S. (2021). Developing a supportive peer environment: engaging students through cooperative skills in the classroom. In *Developmental and Educational Psychology*, 3(1), 81-89. DOI [10.25082/adeq.2021.01.001](https://doi.org/10.25082/adeq.2021.01.001)
- Schell, L. M., & Rousham, E. K. (2022). Environmental effects on growth. *Human Growth and Development* 261-31. DOI [10.1016/B978-0-12-822652-0.00013-4](https://doi.org/10.1016/B978-0-12-822652-0.00013-4)
- Seid, A. (2019). University instructors' self-efficacy belief to provide instructional accommodations for addressing the educational needs of students with disabilities In *Ethiopian Universities: Implication On Quality Of Higher Education*.
- Senent, I. G., Kelley, K., & Abo-Zena, M. M. (2022). Sustaining curiosity: reggio-emilia inspired learning. In *The Influence Of Theorists And Pioneers On Early Childhood Education (Pp. 262-273)*. Routledge.
- Shabazian, A. N. (2016). The role of documentation in fostering learning. *YC Young Children*,71(3),73-79.

- Silalahi, R. M. (2019). Understanding Vygotsky's zone of proximal development for learning. polyglot: *Jurnal Ilmiah*, 15(2), 169-186. DOI [10.19166/Pji.V15i2.1544](https://doi.org/10.19166/Pji.V15i2.1544)
- Simacek, J., Elmquist, M., Dimian, A. F., & Reichle, J. (2021). Current trends in telehealth applications to deliver social communication interventions for young children with or at risk for autism spectrum disorder. *Current Developmental Disorders Reports*, 8(1), 15-23. DOI [10.1007/S40474-020-00214-W](https://doi.org/10.1007/S40474-020-00214-W)
- Soyer, G.F. (2019). Book review: The Ecology of Human Development by Urie Bronfenbrenner, *Journal Of Culture And Values In Education*, 2(2), 77-80. DOI [10.46303/jcve.02.02.6](https://doi.org/10.46303/jcve.02.02.6)
- Spengler, J. R., Ervin, E. D., Towner, J. S., Rollin, P. E., & Nichol, S. T. (2016). Perspectives on West Africa ebola virus disease outbreak, 2013–2016. *Emerging Infectious Diseases*, 22(6), 956 DOI [10.32032/eid2206.160021](https://doi.org/10.32032/eid2206.160021)
- St Nicholas Early Education. (2020, December 11). What is the reggio emilia approach? st Nicholas's early education. <https://stnicholasmn.Org.Au>
- Stang, K. (2022). Brain-based learning methods and student achievement [master's thesis, Bethel University]. Spark Repository.
- Syukri, Suhartini & Humaera, Isna. (2019). Gaining motivation on English learning for special needs students using flashcards, foldable books and posters in an EFL context. Langkawi: *Journal Of The Association For Arabic And English*. 5. 91. DOI [10.31332/Lkw.V5i2.1303](https://doi.org/10.31332/Lkw.V5i2.1303)
- Tatalovic Vorkapic, S. & Polanec, E. (2015). An empirical study about the use of the Internet and computer games among Croatian children. 322-372. DOI [10.4018/978-1-4666-8205-4.Ch015](https://doi.org/10.4018/978-1-4666-8205-4.Ch015)
- Thomas, J., Utley J., Hong S., Korkmaz H. & Nugent G. (2020). Parent Involvement and Its Influence on Children's STEM Learning. In *Handbook of Research on STEM Education* ed. Carla C. Johnson, Margaret J. Mohr-Schroeder Tamarra J. Moore and Lyn D. English, Routledge Handbooks Online.
- Trent, A. R. (2019). The impact of prior settings in early childhood on kindergarten readiness (Doctoral Dissertation, Eastern Kentucky University).
- Umar, M., & Ko, I. (2022). E-learning: direct effect of student learning effectiveness and engagement through project-based learning, team cohesion, and flipped learning during the COVID-19 pandemic. *Sustainability*, 14(3), 1724. DOI [10.3390/su14031724](https://doi.org/10.3390/su14031724)
- UNICEF (2022). *Seen, counted, included: Using data to shed light on the well-being of children with disabilities*. UNICEF DATA. <https://data.unicef.org/resources/children-with-disabilities-report-2021/>
- Van Voorhis, F. L., Maier, M. F., Epstein, J. L., & Lloyd, C. M. (2013). *The Impact of Family Involvement on the Education of Children Ages 3 To 8: A Focus On Literacy And Math Achievement Outcomes And Social-Emotional Skills*. MDRC.
- Vargáné, Nagy A. (2018): A Reggio pedagógia sajátos szemlélete. [The Special Approach of Reggio Pedagogy] In: Vargáné, Nagy Anikó (szerk.) *Családi nevelés 3*. Debrecen, Didakt, pp. 131-153.
- Vygotsky, L. S. (1978). *Mind in society: the development of higher psychological processes*. Massachusetts: Harvard University Press.
- Waite-Stupiansky, S. (2017). Jean Piaget's constructivist theory of learning. In *Theories of Early Childhood Education* (Pp. 3-17). Routledge.
- Wang, M. T., & Sheikh-khalil, S. (2014). Does parental involvement matter for student achievement and mental health in high school? *Child Development*, 85(2), 610-625. DOI [10.1111/Cdev.12153](https://doi.org/10.1111/Cdev.12153)
- Wang, Victor C. X. (2015) *Handbook of research on scholarly publishing and research methods*. Florida Atlantic University. IGI Global

- Wenger, G. C. (2021). *The supportive network: coping with old age*. Routledge.
- Wofford, M. C., Ogletree, B. T., & De Nardo, T. (2022). identity-focused practice in augmentative and alternative communication services: a framework to support the intersecting identities of individuals with severe disabilities. *American Journal of Speech-Language Pathology*, 31(5), 1933-1948. DOI [10.1044/2022_ajslp-21-00397](https://doi.org/10.1044/2022_ajslp-21-00397)
- Wong, J., Baars, M., De Koning, B. B., Van Der Zee, T., Davis, D., Khalil, M., & Paas, F. (2019). educational theories and learning analytics: from data to knowledge. In *Utilizing Learning Analytics To Support Study Success (Pp. 3-25)*. Springer, Cham. DOI [10.1007/978-3-319-64792-0_1](https://doi.org/10.1007/978-3-319-64792-0_1)
- Yee, D. M., & Braver, T. S. (2018). Interactions of motivation and cognitive control. current opinion *In Behavioral Sciences*, 19, 83-90. DOI [10.1016/J.Cobeha.2017.11.009](https://doi.org/10.1016/J.Cobeha.2017.11.009)
- Yerizon, Y., & Putra, A. A. (2021). The effect of various learning approaches on mathematical learning outcomes based on the multiple intelligences of students. *Athens Journal of Sciences*, 8(3), 213-228
- Yuliansyah, A., & Ayu, M. (2021). The implementation of project-based assignments in online learning during COVID-19. *Journal of English Language Teaching and Learning*, 2(1), 32-38. DOI [10.33365/Jeltl.V2i1.851](https://doi.org/10.33365/Jeltl.V2i1.851)