ISSN: 2945-4190

World Journal on Education and Humanities Research
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Vol. 3, Issue 4, pp. 190-201
Received, July 2023; Revised September 2023;
Accepted October 2023

Article

Implementation of Differentiated Instructions in Teaching Kindergarten Learners

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Abstract: This comprehensive assessment of the implementation of Differentiated Instruction in a Kindergarten teaching context demonstrates a highly commendable level of implementation across various dimensions. The mean scores for indicators within the categories of Student Interest, Assessment, Lesson Planning, Content, Process, and Product consistently indicate that Differentiated Instruction is highly implemented. Educators in this setting are dedicated to tailoring their teaching methods to meet the diverse needs and interests of their young learners. Additionally, an analysis of the relationship between respondent profiles and Differentiated Instruction implementation showed that demographic factors such as age, civil status, years in teaching, educational attainment, and training attended did not significantly impact implementation. This suggests that the commitment to differentiated teaching practices reflects a pedagogical approach prioritizing personalized learning for kindergarten students. Overall, these findings highlight the educators' dedication and success in providing a tailored and inclusive learning environment crucial for the growth and development of kindergarten learners.

Keywords: Differentiated Instructions, Kindergarten, Inclusive learning Environment

Introduction

Kindergartens is an extremely important year in the lives of children. It is during this stage that they are naturally inquisitive and keenly aware of their surroundings (Hammer, 2020). Diamon et al. (2019) also suggested that they also started to understand the things that they had seen and felt for the first time. Learners bring their own unique cultures, talents, skills, and the morals and ethics that were instilled in them by their parents with them into the classroom (Rosyad et al., 2022). As a result, there is a variety of approaches to learning that

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correspond to each individual's traits and in each classroom, the instructor is able to recognize the myriad of qualities shared by students who are open to new information and eager to absorb it (Tomlinson, 2021; Fitgerald, 2021). According to Anwer (2019) instructing students who come from a variety of backgrounds is always going to be a difficult task for teachers. In addition to this, teachers in kindergarten need to be aware of how to accommodate the various learner profiles and learning interests of their students (Papadakis et al., 2021).

Kindergarten teachers in the Philippines face the problem of motivating their students to study while also addressing the diversity of Filipino students in their classrooms and making accommodations for these variances (Anero & Tamayo, 2023). Differentiated instruction is going to be the approach that is taken to the learning environment in the typical Philippine classroom, which has anywhere from 40 to 50 students or more. This is being done as a reaction to the various learning levels and requirements of the students. As a result of this, differentiated instruction is put into practice in a wide variety of educational establishments. In this regard, they adapt the teachings to accommodate the various intelligences possessed by the students as well as their own unique qualities.

In grades K through 12, teachers have access to a variety of instructional methodologies, one of which is differentiation (Tang et al., 2020). Differentiated instruction for the students is something that the teachers are strongly urged to think about and incorporate into their lesson planning in order to ensure that the students fully comprehend the material being presented (Dack, 2019). This indicates that in order for educators to be able to communicate these choices for students, they must consistently engage in the practice of formative assessment. However, there is still a question as to whether or not teachers in public schools use differentiated instructions because it is not mandatory for instructors to choose which differentiated instructions they will use or when they will use it. As a result, there is a question as to whether or not teachers in public schools use differentiated instructions. As a result of the widespread pandemic, it is extremely difficult for educators to implement differentiated instruction because the government has banned the more traditional practise of face-to-face communication between instructors and students (Shohel et al., 2022).

Despite the abundant literature on differentiated instruction and its significance in catering to diverse learning needs, there is a conspicuous paucity of research focusing specifically on its implementation within the context of Cordova Elementary School and Buyong Elementary School. Furthermore, the unique challenges and adaptations required during the COVID-19 pandemic have introduced a new dimension to educational delivery, necessitating a deeper understanding of how differentiated instruction is being practiced. This study aims to bridge this gap by providing empirical insights into the

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application of differentiated instruction in these particular settings, thereby contributing to the broader discourse on effective pedagogical strategies during unprecedented times.

This study aims to explore the execution of differentiated instruction within the public education spheres of Cordova Elementary School and Buyong Elementary School. Adopting a quantitative research approach, this investigation endeavors to assess the extent of differentiated instructional practices adopted by educators in both schools. Specifically, it seeks to ascertain the prevalence of differentiated instruction utilization, scrutinize the ways in which educators intend to implement it amidst the ongoing challenges posed by the COVID-19 pandemic, and illuminate the incumbent duties and responsibilities of instructors in providing exceptional early childhood education.

Methodology

This study is anchored in a quantitative research paradigm, utilizing a descriptive-correlational method to unravel various facets of differentiated instruction practices in early childhood education. It focuses on examining the demographic characteristics of the participating kindergarten teachers, such as age, gender, civil status, years in teaching, educational background, and attendance in training and seminars. Specifically, the study seeks to evaluate the extent to which differentiated instruction is employed across different dimensions such as students' interests, assessments, lesson planning, content, process, and product. It also investigates the potential relationships between the teachers' demographic profiles and their use of differentiated instruction, as well as probing for any significant disparities in the application of these instructional strategies.

A total of 20 kindergarten teachers from Cordova Central School and Buyong Elementary School constituted the study's respondents. The data collection instruments included a modified survey questionnaire, adapted from Tomlinson and Allan's (2000) Teacher Survey on Differentiated Instructions, complemented by an interview guide to facilitate deeper insights. The study follows the input-process-output model, with the "input" phase encompassing the gathering of demographic data and information on differentiated instruction practices. The research was conducted in the public schools of Cordova Central School and Buyong Elementary School, providing a focused environment for this investigation. Data collected were systematically summarized, organized, and subjected to statistical analysis to derive meaningful conclusions and insights.

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Results

Table 1. Profile of Respondents

		Frequency	Percentage
A. Age [in years]			
	20 - 25	5	50.00
	26 - 30	2	20.00
	31 - 35	0	0.00
	36 - 40	3	30.00
B. Gender			
	Female	10	100.00
C. Civil Status			
	Married	4	40.00
	Single	6	60.00
D. Years in Teaching			
	1 - 5	8	80.00
	6 - 10	1	10.00
	11 - 15	1	10.00
E. Highest Educational Attainment			
	College Graduate	7	70.00
	Masters Level	2	20.00
	Masters Graduate	1	10.00
F. Training			
	CEAP-CEPA	6	60.00
	Developing Math Thinking	1	10.00
	Teachers Congress	1	10.00
	TESDA	1	10.00
	MAPEH	1	10.00

Table 1 provides a comprehensive breakdown of the demographic profile of the respondents involved in this study, with a specific focus on kindergarten teachers from Cordova Central School and Buyong Elementary School. In terms of age distribution, a noticeable 50% of the respondents fall within the 20-25 years age bracket, indicating a relatively young demographic.

The 26-30 years age group constitutes 20%, while those aged 36-40 represent 30% of the participants. Notably, there are no respondents within the 31-35 years age range. When it comes to gender, the table reflects a homogenous group as all participants (100%) are female. Analyzing the civil status, 60% of the teachers are single, and 40% are married. A significant majority of the respondents have 1-5 years of teaching experience, comprising 80% of the sample. Those with 6-10 years and 11-15 years of experience each make up 10% of the participants. Regarding educational attainment, the majority are college graduates (70%), followed by those at the master's level (20%), and a smaller fraction (10%) who have completed their master's degrees. Training and professional development among the respondents vary, with 60% having attended CEAP-CEPA programs.

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Other training programs mentioned include Developing Math Thinking, Teachers Congress, TESDA, and MAPEH, each attended by 10% of the respondents. This diversity in training reflects a range of professional development opportunities pursued by the kindergarten teachers in this study. In summary, this profile of respondents paints a picture of a predominantly young, entirely female group of kindergarten teachers, most of whom are in the early stages of their teaching careers, with a variety of professional development experiences.

Table 2. Implementation of Differentiated Instruction in Teaching Kindergarten as to Student Interest

	Indicators	Mean	Interpretation
A.	**Student Interest**		
1.	I know individual student interest and can relate it to instruction.	3.60	Highly implemented
2.	I know individual student culture and expectations and can relate to instruction.	3.30	Highly implemented
3.	I know individual student life situations and how it may impact their learning.	3.70	Highly implemented
4.	I am aware of student's learning disabilities and handicaps and how to address them in lessons so as not to impair their learning.	3.70	Highly implemented
	Aggregate Mean	**3.58**	**Highly implemented**

The data presented in Table 2 provides insight into the implementation of differentiated instruction in a kindergarten setting, specifically focusing on aligning teaching methods with student interests. The indicators assess the teacher's awareness and integration of individual students' interests, cultural backgrounds, life situations, and learning disabilities or handicaps into instructional planning. According to the mean scores, the teacher demonstrates a strong capability in all four areas, with the scores ranging from 3.30 to 3.70, all categorized as highly implemented. The highest scores are observed in the teacher's understanding of individual students' life situations and ability to address learning disabilities in lessons (both at 3.70), indicating a particularly strong performance in these areas. The aggregate mean of 3.58 consolidates these findings, affirming that differentiated instruction tailored to student interests is highly implemented in this setting. This reflects a pedagogical approach that is attuned to the diverse needs of the students, striving to create an inclusive and supportive learning environment that acknowledges and accommodates the unique backgrounds, abilities, and interests of each child.

Table 3 presents data on the implementation of differentiated instruction in a kindergarten classroom with a specific focus on

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assessment practices. The indicators evaluate how effectively the teacher utilizes assessments to tailor their instruction to meet the diverse needs of their students. The data indicates a strong application of differentiated assessment practices across all indicators, with mean scores ranging from 3.50 to 3.80, all falling within the 'Highly implemented' category.

Table 3. Implementation of Differentiated Instruction in Teaching Kindergarten as to Assessment

	Indicators	Mean	Interpretation
B.	**Assessment**		
1.	I pre-assess readiness to adjust the lesson.	3.50	Highly implemented
2.	I assess during the unit to gauge understanding.	3.60	Highly implemented
3.	I assess at the end of the lesson to determine knowledge acquisition.	3.80	Highly implemented
4.	I determine student's learning styles.	3.50	Highly implemented
	Aggregate Mean	**3.60**	**Highly implemented**

The teacher proactively engages in pre-assessment to understand students' readiness levels and adjust lessons accordingly, as evidenced by a score of 3.50. During the unit, continuous assessments are conducted to monitor understanding, scoring slightly higher at 3.60, which demonstrates an ongoing commitment to understanding and addressing student needs in real-time. The end-of-lesson assessments aimed at gauging knowledge acquisition receive the highest score of 3.80, indicating a strong emphasis on ensuring that learning objectives are met. Additionally, the teacher is attentive to determining students' learning styles, achieving a score of 3.50 in this area. With an aggregate mean of 3.60, the overall implementation of differentiated assessment practices in this kindergarten classroom is highly effective. The teacher's commitment to understanding and addressing individual learning needs through varied and strategic assessment practices underscores their dedication to fostering a supportive and responsive learning environment. This approach not only helps in catering to the diverse learning needs of the students but also plays a crucial role in enhancing their educational experiences and outcomes.

The data presented in Table 4 illustrates the successful implementation of Differentiated Instruction (DI) in teaching kindergarten, particularly in the context of lesson planning. The indicators assessed in this table all reflect a high level of implementation, with an aggregate mean of 3.70, indicating that DI principles are being effectively applied in kindergarten classrooms. The first indicator highlights the commitment to ensuring each student reaches their highest potential, emphasizing individualized instruction. The use of varied materials to cater to students' diverse reading levels and interests is another strong aspect, promoting engagement and accommodating different learning styles.

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Additionally, involving learners in the design and selection of learning activities empowers them in their educational journey

Table 4. Implementation of Differentiated Instruction in Teaching Kindergarten as to Lesson Planning

	Indicators	Mean	Interpretation
C.	**Lesson Planning**		
1.	I teach up by assuring each student works towards their highest potential.	3.70	Highly implemented
2.	Materials are varied to adjust to students' reading/interest abilities	3.80	Highly implemented
3.	Learners play a role in designing/selecting learning activities.	3.70	Highly implemented
4.	I adjust for diverse learner needs with scaffolding, tiering instruction & provide student choice in learning activities.	3.70	Highly implemented
5.	I provide tasks that require students to apply and extend understanding.	3.60	Highly implemented
	Aggregate Mean	**3.70**	**Highly implemented**

The use of scaffolding, tiering, and providing student choice demonstrates a proactive approach to addressing diverse learner needs. Finally, the provision of tasks that encourage the application and extension of understanding indicates a focus on depth of learning. Overall, this data suggests that kindergarten teachers are successfully integrating DI into their lesson planning, which can lead to more effective and inclusive educational experiences for young learners.

Table 5. Implementation of Differentiated Instruction in Teaching Kindergarten as to Content

	Indicators	Mean	Interpretation
D.	**Content**		
1.	The curriculum is based on major concepts and generalizations	3.60	Highly implemented
2.	I clearly articulate what I want students to know, understand and be able to do.	3.80	Highly implemented
3.	I use variety of materials other than the standard text.	3.60	Highly implemented
4.	I provide a variety of support strategies (organizers, study guides, study buddies).	3.60	Highly implemented
	Aggregate Mean	**3.65**	**Highly implemented**

Table 5 provides valuable insights into the implementation of Differentiated Instruction (DI) in teaching kindergarten, particularly with regard to content. The indicators assessed in this table collectively reflect a highly implemented approach to DI, with an aggregate mean of 3.65. Firstly, the emphasis on structuring the curriculum around

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major concepts and generalizations (Indicator 1) highlights a focus on essential content, which is a fundamental aspect of effective instruction. Indicator 2 underscores the importance of clear learning objectives, ensuring that teachers are transparent about what students should know and be able to do, which is crucial for effective differentiation. The use of a variety of materials beyond standard textbooks (Indicator 3) is indicative of an effort to cater to diverse learning styles and preferences. Lastly, Indicator 4, which involves providing support strategies such as organizers and study guides, demonstrates a commitment to scaffolding learning and ensuring that students receive the necessary assistance to succeed. This data indicates a strong commitment to differentiated instruction in kindergarten content delivery, which can lead to more meaningful and tailored learning experiences for young students.

Table 6. Implementation of Differentiated Instruction in Teaching Kindergarten as to Process

	Indicators	**Mean**	**Interpretation**
E.	**Process**		
1.	The pace of instruction varies based on individual learner needs.	3.60	Highly implemented
2.	I use learner preference groups and/or learning preference centers.	3.50	Highly implemented
3.	I group students for learning activities based on readiness, interests, and/or learning preferences.	3.30	Highly implemented
4.	The classroom environment is structured to support a variety of activities including group and/or individual work.	3.60	Highly implemented
	Aggregate Mean	**3.50**	**Highly implemented**

The data presented in Table 6 reflects the successful implementation of Differentiated Instruction in a Kindergarten classroom, with a strong focus on the instructional process. The indicators related to the process of teaching demonstrate a high level of implementation, as evidenced by the mean scores. First, the pace of instruction is noted to vary based on individual learner needs, which is a fundamental aspect of Differentiated Instruction. This flexibility in pacing ensures that each student can progress at their own rate, catering to their unique learning requirements. Secondly, the use of learner preference groups and learning preference centers further enhances the personalized learning experience. This approach recognizes that children have diverse learning styles and preferences, allowing for tailored instruction that suits individual needs. Thirdly, grouping students for learning activities based on readiness, interests, and learning preferences shows that the teacher is attuned to the diverse needs and abilities of their students. This practice fosters a more engaging and effective learning environment. Finally, the structured classroom environment that supports a variety of activities, including both group and individual

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work, is crucial for accommodating different learning modalities and promoting student engagement. In summary, the aggregate mean score of 3.50 indicates that Differentiated Instruction is highly implemented in this Kindergarten classroom. The teacher's commitment to tailoring instruction to meet the needs and preferences of each student is commendable and is likely to result in enhanced learning outcomes and a positive classroom experience.

Table 7. Implementation of Differentiated Instruction in Teaching Kindergarten as to Product

	Indicators	Mean	Interpretation
F.	**Product**		
1.	I provide multiple modes of expression in the final product.	3.60	Highly implemented
2.	I provide students with the choice to work alone, in pairs or small group.	3.90	Highly implemented
3.	The product connects with student interest.	3.80	Highly implemented
4.	I provide variety of assessment tasks.	3.80	Highly implemented
	Aggregate Mean	**3.78**	**Highly implemented**

Table 7 reveals a highly effective implementation of Differentiated Instruction in a Kindergarten classroom with a specific focus on the product aspect of teaching. The indicators related to product development consistently demonstrate a high level of implementation, as evidenced by the mean scores. Firstly, the provision of multiple modes of expression in the final product with a mean score of 3.60 indicates that the teacher is ensuring that students have various ways to demonstrate their understanding. This approach recognizes and accommodates the diverse strengths and preferences of the students, allowing them to showcase their learning in ways that resonate with them. Secondly, the high score of 3.90 for providing students with the choice to work alone, in pairs, or small groups reflects a strong commitment to student autonomy and collaboration. Allowing students to select their preferred working style empowers them to take ownership of their learning while also developing important social skills. Thirdly, the product's connection with student interest, with a mean score of 3.80, shows that the teacher values the relevance of learning materials to the students. By aligning the product with student interests, the teacher is making learning more engaging and meaningful, which can significantly enhance motivation and understanding. Finally, the provision of a variety of assessment tasks (mean score of 3.80) demonstrates a commitment to assessing student learning through different methods. This not only caters to diverse learning styles but also provides a more holistic view of a student's abilities and knowledge. In conclusion, the aggregate mean score of 3.78 indicates that Differentiated Instruction is highly implemented in terms of product development in this Kindergarten classroom. The teacher's focus on offering choices, connecting with student interests,

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and employing various assessment methods ensures a rich and personalized learning experience for each student, contributing to their overall growth and success.

Table 8. Relationship Between Profile of the Respondents and the Implementation of Differentiated Instruction in Teaching Kindergarten

Variables	Chi-Square	df	Critical Value	Significance	Result
Implementation of Differentiated Instruction in Teaching Kindergarten					
Age	2.708	2	5.991	Not significant	Ho accepted
Civil Status	3.750	1	3.841	Not significant	Ho accepted
Years in Teaching	4.531	2	5.991	Not significant	Ho accepted
Educational Attainment	1.518	2	5.991	Not significant	Ho accepted
Training Attended	4.792	4	9.488	Not significant	Ho accepted

Table 8 presents the results of an analysis examining the relationship between various respondent profiles and the implementation of Differentiated Instruction in teaching Kindergarten. The Chi-Square test was used to assess the significance of these relationships. The findings indicate that none of the variables tested had a significant relationship with the implementation of Differentiated Instruction in the Kindergarten classroom. The variables included age, civil status, years in teaching, educational attainment, and training attended. In each case, the p-values were greater than the chosen level of significance, suggesting that there is no statistically significant association between these demographic and professional characteristics of the respondents and the level of Differentiated Instruction implementation. As a result, the null hypothesis (Ho) was accepted for each variable, indicating that there is no compelling evidence to suggest that these specific factors have a direct impact on the implementation of Differentiated Instruction in the Kindergarten teaching context. These results emphasize that effective Differentiated Instruction is not solely dependent on these demographic or professional characteristics but rather on the specific teaching practices, strategies, and commitment of the educator in creating a personalized and inclusive learning environment for kindergarten students.

Conclusion

In conclusion, the data presented in this comprehensive assessment of the implementation of Differentiated Instruction in teaching Kindergarten reveals a highly commendable level of implementation across various dimensions. The mean scores for each indicator within the categories of Student Interest, Assessment, Lesson Planning, Content, Process, and Product consistently indicate that Differentiated Instruction is highly implemented in this Kindergarten teaching

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context. This underscores the dedication and effectiveness of the educators in tailoring their teaching methods to meet the diverse needs and interests of their young learners. Furthermore, the analysis examining the relationship between respondent profiles and the implementation of Differentiated Instruction showed that demographic factors such as age, civil status, years in teaching, educational attainment, and training attended did not have a statistically significant impact on the level of Differentiated Instruction implementation. This suggests that the commitment to differentiated teaching practices is not necessarily tied to these individual characteristics but rather reflects a pedagogical approach prioritizing personalized learning for kindergarten students.

Overall, the high level of implementation across the board and the lack of significant correlations with respondent profiles highlight the dedication of the educators and the success of their efforts in providing a tailored and inclusive learning environment for kindergarten learners, which is crucial for their growth and development.

References

Anero, J., & Tamayo, E. (2023). Going Back to Normal: A Phenomenological Study on the Challenges and Coping Mechanisms of Junior High School Teachers in the Full Implementation of In-Person Classes in the Public Secondary Schools in the Division of Rizal. *Psych Educ*, *12*, 767-808.

Anwer, F. (2019). Activity-Based Teaching, Student Motivation and Academic Achievement. *Journal of Education and Educational Development*, *6*(1), 154-170.

Dack, H. (2019). Understanding teacher candidate misconceptions and concerns about differentiated instruction. *The Teacher Educator*, *54*(1), 22-45.

Diamond, A., Lee, C., Senften, P., Lam, A., & Abbott, D. (2019). Randomized control trial of Tools of the Mind: Marked benefits to kindergarten children and their teachers. *PloS one*, *14*(9), e0222447.

Fitzgerald, A. (2021). Exploring'next practice': Principals' perceptions of graduate skills and attributes for future classrooms. *Australian Journal of Teacher Education (Online)*, *46*(5), 1-17.

Hammer, A. S. E. (2020). Kindergarten as a Budding Explorative Scientific Community. In *Children's Exploration and Cultural Formation* (pp. 141-157). Cham: Springer International Publishing.

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Papadakis, S., Vaiopoulou, J., Sifaki, E., Stamovlasis, D., & Kalogiannakis, M. (2021). Attitudes towards the use of educational robotics: Exploring pre-service and in-service early childhood teacher profiles. *Education Sciences*, *11*(5), 204.

Rosyad, A. M., Sudrajat, J., & Loke, S. H. (2022). Role of social studies teacher to inculcate student character values. *International Journal of Science Education and Cultural Studies*, *1*(1), 1-15.

Shohel, M. M. C., Shams, S., Ashrafuzzaman, M., Alam, A. S., Al Mamun, M. A., & Kabir, M. M. (2022). Emergency remote teaching and learning: Digital competencies and pedagogical transformation in resource-constrained contexts. In *Handbook of research on Asian perspectives of the educational impact of COVID-19* (pp. 175-200). IGI Global.

Tang, H., Lin, Y. J., & Qian, Y. (2020). Understanding K-12 teachers' intention to adopt open educational resources: A mixed methods inquiry. *British Journal of Educational Technology*, *51*(6), 2558-2572.

Tomlinson, C. A. (2021). *So each may soar: The principles and practices of learner-centered classrooms*. ASCD.

Tomlinson, C., & Allan, S. (2000). L e a d e r s h i p f o r differentiated schools and clasrooms. VA: Association for Supervision and Curriculum Development.

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