

Teachers' Competence and the Effectiveness of Kindergarten Education Programs: Intervention Strategies in Northern Tabuk District 1, Kalinga

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Abstract

This study determined the competence of Kindergarten teachers, the effectiveness of Kindergarten Education programs, and the intervention strategies employed in public elementary schools in Northern Tabuk District 1, Kalinga. It described the teachers' profile, the implementation of the general objectives of Kindergarten Education, the development of the seven learning domains, the effectiveness of selected teaching factors, the hindrances encountered in instruction, and the interventions used to address these concerns. The study employed a descriptive research design. Twenty Kindergarten teachers served as respondents and answered a structured questionnaire. Data were analyzed using frequency counts, percentages, and weighted means. Findings revealed that the respondents were qualified, experienced, and active in professional development activities. The general objectives of Kindergarten Education were implemented, while the seven domains were developed, with values development and physical health and motor development receiving the highest ratings. Teacher competence, learning materials, classroom environment, parent factor, pupil factor, and instructional supervision were rated effective to very effective. Hindrances were generally least serious to slightly serious, indicating that these concerns did not greatly disrupt instructional delivery. Teachers often applied interventions such as involving parents, using outdoor activities, introducing classroom innovations, and monitoring pupil achievement. The study concludes that Kindergarten Education in Northern Tabuk District 1 is effectively delivered through competent teachers, supportive learning conditions, parental participation, and responsive intervention strategies that help prepare young learners for formal schooling.

Keywords: Early Childhood Education, Intervention Strategies, Kindergarten Education, Program Effectiveness, Teacher Competence

1. Introduction

Kindergarten is a vital bridge between home-based early learning and the more structured demands of formal schooling. At this age, children develop rapidly in language, thinking, movement, self-regulation, social interaction, and early literacy and numeracy. Quality early childhood education is therefore not merely preparation for Grade 1; it is a foundation for children's confidence, curiosity, and readiness to participate in school life. The global education agenda gives strong attention to this stage through Sustainable Development Goal 4.2, which calls for access to quality early childhood development, care, and pre-primary education before primary school entry (United Nations, 2015; UNESCO, 2024).

In the Philippines, Kindergarten Education is positioned as the first stage of compulsory basic education and is expected to nurture the whole child through play, exploration, communication, values formation, health habits, creativity, and early academic readiness. The Kindergarten Curriculum Guide emphasizes seven developmental domains, namely language, literacy and communication; socio-emotional development; values development; physical health and motor development; aesthetic and creative development; mathematics; and understanding of the physical and natural environment (Department of Education, 2016). These domains recognize that young children learn best when activities are concrete, joyful, meaningful, and connected to their daily experiences.

The competence of Kindergarten teachers is central to the success of these goals. Teachers of young learners do more than deliver lessons; they design routines, guide behavior, observe development, communicate with families, prepare learning materials, and respond to individual differences. Developmentally appropriate practice calls for teachers to consider child development, individual needs, and the social and cultural life of learners when planning instruction (National Association for the Education of Young Children [NAEYC], 2020). Evidence from pre-primary education systems likewise points to trained, supported, and motivated teachers as a key condition for quality learning experiences in the early years (UNESCO & OECD, 2022).

Program effectiveness in Kindergarten also depends on the presence of learning materials, a safe and engaging classroom, active parent participation, and instructional supervision. Young children benefit from real objects, pictures, manipulatives, stories, music, movement, outdoor activities, and guided play because these resources help them understand ideas through direct experience. The World Bank (2022) notes that quality early learning requires child-centered pedagogy, purposeful materials, teacher support, and responsive interactions. In the same way, recent studies on teacher professional development stress that continuous, practice-based support helps teachers adopt new strategies and improve classroom implementation (El-Hamamsy et al., 2023).

In Northern Tabuk District 1, Kindergarten teachers work with children whose learning needs, home support, classroom exposure, and readiness levels may differ. For this reason, it is important to examine how teachers carry out the goals of Kindergarten Education, how the seven domains are developed, what factors support or weaken instruction, and what interventions teachers use when hindrances arise. The findings of this study may guide school heads, teachers, and local education leaders in strengthening Kindergarten Education through practical and responsive strategies.

2. Material and methods

2.1 Research Design

This study employed a descriptive research design to determine teachers' competence, the effectiveness of Kindergarten Education programs, and the intervention strategies implemented in public elementary schools of Northern Tabuk District 1, Kalinga. The design was appropriate because the study described existing teacher characteristics, instructional practices, teaching factors, hindrances, and interventions based on the responses of Kindergarten teachers.

2.2 Locale of the Study

The study was conducted in public elementary schools of Northern Tabuk District 1, Kalinga. The locale was selected because Kindergarten teachers in the district directly implement the Kindergarten curriculum and work with young learners whose readiness, home support, and classroom exposure may vary.

2.3 Respondents of the Study

The respondents were twenty Kindergarten teachers from public elementary schools in Northern Tabuk District 1, Kalinga.

2.4 Sample and Sampling Procedure

Purposive sampling was used because the respondents were directly involved in implementing the Kindergarten curriculum, managing young learners, using learning materials, coordinating with parents, and applying interventions to improve classroom learning.

2.5 Research Instrument

A structured questionnaire served as the main data-gathering instrument. It included sections on respondents' profile, implementation of the general objectives of Kindergarten Education, development of the seven domains, effectiveness of factors in teaching Kindergarten, hindrances encountered, and interventions initiated by teachers. The instrument used five-point scales suited to each variable, such as Fully Implemented to Least Implemented, Very Effective to Least Effective, Very Serious to Not Serious, and Always to Never. The questionnaire was tried out among teachers who were not included in the actual respondents, and suggestions were used to refine the final form.

2.6 Data Gathering Procedure

Permission was secured from the proper school authorities before the conduct of the study. The researcher distributed the questionnaires to the respondents and retrieved them after completion.

2.7 Data Analysis Techniques

Frequency counts and percentages were used to describe the teachers' profile. Weighted mean was used to determine the extent of implementation, development, effectiveness, seriousness of hindrances, and frequency of intervention

2.8 Ethical Considerations

Participation in the study was treated with confidentiality and respect. The respondents were informed of the purpose of the study, and their responses were used only for academic analysis. No personal identifiers were included in the manuscript prepared for journal submission.

3. Results and Discussion

3.1 Profile of Kindergarten Teacher-Respondents

Table 1. *Profile of Kindergarten teacher-respondents*

Profile Variable	Category	Frequency	Percentage
Age	25-30	5	25.00
	31-35	8	40.00
	36-40	4	20.00
	41-45	2	10.00
	46-50	1	5.00
Gender	Male	0	0.00
	Female	20	100.00
Civil Status	Single	2	10.00
	Married	18	90.00
Present Position	LSB Teacher	3	15.00
	Teacher I	9	45.00
	Teacher III	8	40.00
Highest Educational Attainment	Bachelor's Degree	12	60.00
	Master's Degree	8	40.00
Performance Rating	Outstanding	2	10.00
	Very Satisfactory	15	75.00
	Satisfactory	3	15.00
Years in Teaching	1-5 years	6	30.00
	6-10 years	10	50.00
	11-15 years	4	20.00
Seminars/Trainings Attended	School	20	100.00
	District	20	100.00
	Division	15	75.00
	Regional	10	50.00
	National	6	30.00
	International	1	5.00

Note. *Frequency of mention.

Table 1 shows that the teacher-respondents were mostly 31-35 years old (40.00%), female (100.00%), married (90.00%), Teacher I in position (45.00%), bachelor's degree holders (60.00%), and rated Very Satisfactory in performance (75.00%). Half of them had 6-10 years of teaching experience, while all had attended school and district trainings. These data indicate that the Kindergarten teachers were professionally prepared and had continuing exposure to training opportunities, a point consistent with UNESCO and OECD's (2022) emphasis that teacher preparation and professional support are important to quality pre-primary education.

3.2 Extent of Implementation of the General Objectives of Kindergarten Education

Table 2. *Implementation of the general objectives of Kindergarten Education*

General Objective	Weighted Mean	Qualitative Description	Rank
Character and values development	4.62	Fully Implemented	1
Language development	4.16	Implemented	2
Social-emotional development	4.14	Implemented	3
Physical health, well-being, and motor development	4.05	Implemented	4
Cognitive/intellectual development	4.02	Implemented	5
Creative and aesthetic development	4.02	Implemented	5
Average Weighted Mean	4.11	Implemented	

Table 2 obtained an average weighted mean of 4.11, described as Implemented. The highest-rated objective was character and values development ($M = 4.62$), followed by language development ($M = 4.16$), social-emotional development ($M = 4.14$), physical health, well-being, and motor development ($M = 4.05$), and both cognitive/intellectual and creative-aesthetic development ($M = 4.02$). The results show that teachers give strong attention to values, language, social behavior, health, thinking, and creativity, which reflects the holistic direction of the Kindergarten curriculum (Department of Education, 2016; NAEYC, 2020).

3.3 Extent of Development of the Seven Domains of Kindergarten Education

Table 3. *Development of the seven domains of Kindergarten Education*

Domain	Mean	Qualitative Description	Rank
Values Development (Kagandahang Asal)	4.25	Fully Developed	1
Physical Health and Motor Development (Kalusugang Pisikal at Pagpapaunlad sa Kakayahang Motor)	4.23	Fully Developed	2
Aesthetic/Creative Development (Sining)	4.16	Developed	3
Language, Literacy, and Communication (Wika, Karunungan sa Pagbasa at Pagsulat)	4.14	Developed	4
Socio-Emotional Development (Pagpapaunlad ng Sosyo-Emosyunal at Kakayahang Makipamuhay)	4.09	Developed	5
Mathematics (Matematika)	4.05	Developed	6
Understanding of the Physical and Natural Environment (Pag-unawa sa Pisikal at Natural na Kapaligiran)	4.04	Developed	7
Average Weighted Mean	4.14	Developed	

Table 3 obtained an average weighted mean of 4.14, described as Developed. Values development ranked first ($M = 4.25$), followed by physical health and motor development ($M = 4.23$), aesthetic/creative development ($M = 4.16$), language, literacy, and communication ($M = 4.14$), socio-emotional development ($M = 4.09$), mathematics ($M = 4.05$), and understanding of the physical and natural environment ($M = 4.04$). The strong ratings across domains affirm that the Kindergarten program addresses child development beyond academics, which is in harmony with current early childhood guidance that learning should cover social, emotional, physical, language, cognitive, and creative growth (UNESCO, 2024; World Bank, 2022).

3.4 Effectiveness of Factors in Teaching Kindergarten Education

Table 4. *Effectiveness of teachers' competence in teaching Kindergarten Education*

Indicator	Mean	Qualitative Description	Rank
Maintains good relation to internal and external stakeholders	4.53	Very Effective	1
Completes assigned tasks	4.44	Very Effective	2
Knowledge on modern trends of teaching-learning process	4.40	Very Effective	3
Serves as demonstration teacher when assigned	4.35	Very Effective	4
Gives and follows up homework	4.35	Very Effective	4
Ensures the pupils achieve mastery of the subject matter	4.23	Very Effective	6
Works without supervision	4.23	Very Effective	6
Possesses good values with refined character	4.14	Effective	8
Teaches and guides pupils in a friendly manner	4.14	Effective	8
Conducts participatory activities	4.09	Effective	10
Key factor in the learning process	4.05	Effective	11
Open to positive feedback and innovations	4.05	Effective	12
Maintains conducive teaching and learning process	3.98	Effective	12
Develops teaching strategies that fit the pupils learning level	3.98	Effective	12
Preparation of accurate lesson logs/plan	3.90	Effective	15
Guides and helps the pupils without discrimination	3.91	Effective	16
Subscribes to professional magazines	3.88	Effective	17
Average Weighted Mean	4.15	Effective	

Table 4 obtained an average weighted mean of 4.15, described as Effective. The highest indicators were maintaining good relations with internal and external stakeholders ($M = 4.53$), completing assigned tasks ($M = 4.44$), and knowledge of modern teaching-learning trends ($M = 4.40$). The lowest indicators were subscribing to professional magazines ($M = 3.88$), guiding pupils without discrimination ($M = 3.91$), and preparing accurate lesson logs/plans ($M = 3.90$). These findings show that the teachers were strong in relationship-building, task completion, and instructional awareness, while professional reading, inclusive guidance, and documentation still need steady attention. Recent literature gives similar weight to teacher competence, reflective practice, and continuous professional learning in strengthening early childhood instruction (NAEYC, 2020; El-Hamamsy et al., 2023).

Table 5. *Effectiveness of learning materials in teaching Kindergarten Education*

Learning Material	Mean	Qualitative Description	Rank
Television	4.19	Effective	1
Real objects/pictures	4.16	Effective	2
Workbooks	4.14	Effective	3
Supplementary materials	4.12	Effective	4
Localized materials	4.09	Effective	5
Big books	4.05	Effective	6
Manipulative materials	4.04	Effective	7
Small books	4.00	Effective	8
Projector	3.91	Effective	9
Dough	3.49	Effective	10
Average Weighted Mean	4.02	Effective	

Table 5 obtained an average weighted mean of 4.02, described as Effective. Television ranked first ($M = 4.19$), followed by real objects/pictures ($M = 4.16$), workbooks ($M = 4.14$), supplementary materials ($M = 4.12$), localized materials ($M = 4.09$), big books ($M = 4.05$), manipulative materials ($M = 4.04$), small books ($M = 4.00$), projector ($M = 3.91$), and dough ($M = 3.49$). The weighted mean indicates that teachers used varied materials to make learning concrete for young children, which agrees with early learning research that purposeful materials and hands-on experiences help children build language, movement, creativity, and early numeracy skills (World Bank, 2022; Zosh et al., 2022).

Table 6. *Effectiveness of the learning environment in teaching Kindergarten Education*

Indicator	Mean	Qualitative Description	Rank
Activities are interesting at all times	4.74	Very Effective	1
Connects lessons to real-life situations	4.05	Effective	2
Conducive learning atmosphere	4.02	Effective	3
Utilizes variety of activities	3.98	Effective	4
Sets classroom standards	3.42	Effective	5
Average Weighted Mean	4.04	Effective	

Table 6 obtained an average weighted mean of 4.04, described as Effective. Activities that are interesting at all times ranked first ($M = 4.74$), followed by connecting lessons to real-life situations ($M = 4.05$), providing a conducive learning atmosphere ($M = 4.02$), using a variety of activities ($M = 3.98$), and setting classroom standards ($M = 3.42$). The ratings point to a classroom climate where children are engaged through meaningful activities. This is consistent with developmentally appropriate practice, which values active, relevant, and child-centered experiences in early learning (NAEYC, 2020; World Bank, 2022).

Table 7. *Effectiveness of the parent factor in teaching Kindergarten Education*

Indicator	Mean	Qualitative Description	Rank
Assists the child in going to school	4.58	Very Effective	1
Helps the given homework	4.32	Very Effective	2
Guides during recess time	4.23	Very Effective	3
Cooperates with the teachers at all times	4.12	Effective	4
Confident to school authorities	4.09	Effective	5
Average Weighted Mean	4.27	Very Effective	

Table 7 obtained an average weighted mean of 4.27, described as Very Effective. Assisting the child in going to school ranked first ($M = 4.58$), followed by helping with homework ($M = 4.32$), guiding during recess time ($M = 4.23$), cooperating with teachers ($M = 4.12$), and being confident toward school authorities ($M = 4.09$). The results show that parents were active partners in the children's schooling. Current early childhood guidance recognizes family engagement as a major support for school readiness, positive behavior, and continuity between home and school learning (UNICEF, 2019; UNESCO, 2024).

Table 8. *Effectiveness of the pupil factor in teaching Kindergarten Education*

Indicator	Mean	Qualitative Description	Rank
Adhere to classroom standards	4.09	Effective	1
Works with group mates	4.05	Effective	2
Possess good values	3.98	Effective	3
Well disciplined in the classroom	3.96	Effective	4
Participate actively in the classroom activities done	3.93	Effective	5
Average Weighted Mean	4.00	Effective	

Table 8 obtained an average weighted mean of 4.00, described as Effective. Adherence to classroom standards ranked first ($M = 4.09$), followed by working with group mates ($M = 4.05$), possessing good values ($M = 3.98$), discipline in the classroom ($M = 3.96$), and active participation in classroom activities ($M = 3.93$). The findings show that pupils demonstrated classroom behaviors that supported learning. This is aligned with early childhood practice that treats social behavior, cooperation, self-regulation, and participation as important parts of learning readiness (NAEYC, 2020; UNESCO, 2024).

Table 9. *Effectiveness of instructional supervision in teaching Kindergarten Education*

Indicator	Mean	Qualitative Description	Rank
Conducts school-based in-service training according to teacher needs	4.33	Very Effective	1
Monitors and evaluates implemented programs in Kindergarten Education	4.30	Very Effective	2
Equal opportunities for teachers to grow professionally	3.96	Effective	3
Observes teachers when at work for improvement	3.84	Effective	4
Monitors classroom management during classroom visits	3.40	Effective	5
Average Weighted Mean	3.97	Effective	

Table 9 obtained an average weighted mean of 3.97, described as Effective. The highest indicators were conducting school-based in-service training according to teachers' needs ($M = 4.33$) and monitoring and evaluating implemented Kindergarten programs ($M = 4.30$). Equal opportunities for professional growth ($M = 3.96$), observing teachers for improvement ($M = 3.84$), and monitoring classroom management during visits ($M = 3.40$) followed. The weighted mean indicates that supervision helped sustain program delivery, with school-based training as the strongest support. This corresponds with evidence that teacher development is most useful when it is needs-based, continuous, and connected to classroom practice (UNESCO & OECD, 2022; El-Hamamsy et al., 2023).

3.5 Hindrances Intervening in the Teaching of Kindergarten

Table 10. *Summary of hindrances encountered in teaching Kindergarten*

Area	Highest-Rated Hindrance	Mean	QD	Category Mean	QD
Teachers' competence	Negative attitude in attending seminar/workshop due to time and financial constraints	1.82	Slightly Serious	1.43	Least Serious
Teachers' personality	Negative perception on classroom observation	1.79	Least Serious	1.35	Least Serious
Learning materials	Insufficient supply of materials	2.40	Slightly Serious	1.77	Least Serious
Classroom environment	Lack of concern to low-performing pupils	1.35	Least Serious	1.22	Least Serious
Parent factor	No conducive place for home study	2.40	Slightly Serious	1.58	Least Serious
Pupil factor	Lack of good values	1.88	Slightly Serious	1.66	Least Serious

Area	Highest-Rated Hindrance	Mean	QD	Category Mean	QD
Instructional supervision	Limited time to monitor teachers due to time constraints	2.26	Slightly Serious	1.87	Slightly Serious
Grand Mean				1.55	Least Serious

Table 10 obtained a grand mean of 1.55, described as Least Serious. By category, instructional supervision recorded the highest category mean ($M = 1.87$), followed by learning materials ($M = 1.77$), pupil factor ($M = 1.66$), parent factor ($M = 1.58$), teachers' competence ($M = 1.43$), teachers' personality ($M = 1.35$), and classroom environment ($M = 1.22$). The highest specific concerns were insufficient supply of materials and no conducive place for home study (both $M = 2.40$), followed by limited time to monitor teachers ($M = 2.26$). These findings show that the hindrances were manageable, although materials, home learning support, and supervisory time need attention. Early childhood quality frameworks similarly identify resources, family support, and teacher supervision as practical conditions that shape children's classroom experiences (World Bank, 2022; UNESCO, 2024).

3.6 Interventions Initiated by Teachers

Table 11. *Interventions initiated by teachers to address identified hindrances*

Intervention	Mean	Qualitative Description	Rank
Tap parents to help/assist their children at home	4.33	Always	1
Utilizes outdoor activities for a change in environment	4.05	Often	2
Introduces classroom innovations to improve school performance	4.04	Often	3
Monitor pupil achievement	3.68	Often	4
Gives enrichment activities to boost their understanding	3.40	Sometimes	5
Develops positive behavior to improve their performance	3.23	Seldom	6
Helps create a school culture of programs, goals, and services relevant to the pupils experiences	3.23	Seldom	6
Reinforces activities that develop pupils higher-order thinking skills	3.11	Seldom	8
Provides complete and accurate instructional devices to improve their learning style	2.91	Seldom	9
Provides learning materials that enhance pupils understanding	2.75	Seldom	10
Average Weighted Mean	3.47	Often	

Table 11 obtained an average weighted mean of 3.47, described as Often. The most frequently initiated intervention was tapping parents to help or assist their children at home ($M = 4.33$), followed by using outdoor activities for a change in environment ($M = 4.05$), introducing classroom innovations ($M = 4.04$), monitoring pupil achievement ($M = 3.68$), and giving enrichment activities ($M = 3.40$). The least frequently initiated interventions were providing learning materials that enhance understanding ($M = 2.75$), providing complete and accurate instructional devices ($M = 2.91$), and reinforcing activities that develop higher-order thinking skills ($M = 3.11$). These results indicate that teacher responses were strongest in parent involvement and activity-based learning. This is consistent with research that play, outdoor learning, and family participation can support children's language, social, motor, and cognitive development when guided by intentional teaching (UNICEF, 2019; Zosh et al., 2022; Yang et al., 2025).

4. Conclusion & Recommendations

Based on the findings, Kindergarten Education in Northern Tabuk District 1, Kalinga is delivered by teachers who are qualified, experienced, and active in professional development activities. The general objectives of Kindergarten Education are implemented, and the seven domains are developed, with values development and physical health and motor development receiving the highest ratings. The teaching factors assessed in the study, particularly teacher competence, learning materials, classroom environment, parent factor, pupil factor, and instructional supervision, were rated effective to very effective. The hindrances encountered by teachers were generally least serious to slightly serious, showing that they did not greatly disrupt instruction. Teachers often used interventions such as tapping parents for home support, using outdoor activities, introducing classroom innovations, and monitoring pupil achievement. These findings indicate that Kindergarten Education in the district is supported by competent teachers, active family participation, child-centered learning experiences, and practical interventions that help young learners build the readiness needed for formal schooling.

Based on the findings, it is recommended that Northern Tabuk District 1 continue strengthening Kindergarten Education through needs-based teacher training, improved access to learning materials, sustained instructional supervision, and regular parent involvement activities. Teachers may also be encouraged to prepare inclusive lesson plans, use more hands-on and outdoor activities, reinforce higher-order thinking through play-based tasks, and monitor pupil progress consistently so that each developmental domain receives balanced attention.

The study was limited to twenty Kindergarten teachers from public elementary schools in Northern Tabuk District 1, Kalinga. Since the findings were based on teacher responses gathered through a structured questionnaire and treated with descriptive statistics, the results may not fully reflect the views of parents, pupils, school heads, or other districts. The interpretation should therefore be read within the specific respondents, locale, instrument, and School Year 2025-2026 covered by the study.

Compliance with ethical standards

The study adhered to institutional ethical standards in the conduct of educational research. Participation was voluntary, the purpose of the study was explained to the respondents, and permission from the proper school authorities was secured before data gathering. The confidentiality of responses was maintained, no personal identifiers were included in the manuscript, and the data were used only for academic analysis. The authors take responsibility for the integrity of the manuscript, acknowledge the sources and contributions used in the study, retain responsibility for copyright matters, and declare that no conflict of interest was involved in the preparation of this work.

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