

The Role of Non-Formal ECE Center Heads in Enhancing the Competency of Underqualified Early Childhood Educators

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ABSTRACT

This study was motivated by the large number of underqualified educators in non-formal early childhood education (ECE) institutions and the need to strengthen the leadership role of ECE center heads in supporting educator competency development. This study aimed to analyze the competency levels of underqualified non-formal ECE educators, examine the contributions of ECE center heads, determine the relationship between leadership contributions and educator competencies, and identify strategies used to enhance educator competencies. A mixed-methods approach with a sequential explanatory design was employed. The quantitative phase involved 137 underqualified non-formal ECE educators in Batang Regency selected proportionally from a population of 207 educators, while the qualitative phase used interviews and documentation to explain the quantitative findings. Data were collected through validated and reliable questionnaires, interview guidelines, and documentation, and were analyzed using descriptive statistics, assumption testing, Pearson correlation, coefficient of determination, and thematic analysis. The findings show that pedagogical and personal competencies were categorized as high, whereas social and professional competencies remained low. The contribution of ECE center heads had a positive and significant relationship with educator competencies ($r = 0.638$; $p < 0.05$), explaining 40.7% of the variance. Qualitative findings identified seven strategies: data-based planning, resource optimization, training facilitation, professional value internalization, cross-unit collaboration, positive work climate creation, and continuous professional development. This study concludes that ECE center heads play a strategic role in supporting the competency development of underqualified educators in non-formal ECE settings.

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1. INTRODUCTION

Early childhood education (ECE) serves as a crucial foundation for children's long-term cognitive, social-emotional, and character development. Numerous international studies confirm that the quality of PAUD services is significantly influenced by the competence of educators and the leadership of educational institutions. Therefore, improving the quality of educators and strengthening leadership have become strategic priorities in the development of ECE across various countries.

In Indonesia, the commitment to improving the quality of early childhood education has been reaffirmed through various regulations that require specific academic qualifications and competencies for educators (PP Nomor 04 Tentang Standar Nasional Pendidikan, 2022). However, in practice, particularly in non-formal ECE institutions, many educators still do not meet the minimum academic qualification of a Bachelor's degree (S1) or Diploma IV (D4) in Early Childhood Education (ECE) or a relevant Bachelor's degree in education. In Batang Regency, the number of unqualified educators remains significant. According to data from HIMPAUDI Batang Regency in 2025, the number of educators across 275 non-formal early childhood education (PAUD) institutions was recorded at 397. Of this total, 190 educators met the qualifications, while 207 did not, presenting a unique challenge in maintaining the quality of educational services for young children.

The Head of an Early Childhood Education (ECE) Unit is a leader within the ECE institution who plays a crucial role in creating an environment that supports and motivates educators to continue learning and developing. As a leader in education, the ECE Head must be able to support, guide, motivate, nurture, and protect all members of the school community (Solana & Mustika, 2023). As a leader, they must be accountable for the implementation of educational activities, school management, staff development, as well as the use and maintenance of facilities and infrastructure (Megawati, et.al.,2021). Motivating educators to grow and develop their competencies is no easy task. Therefore, the quality of leadership is not only reflected in the head's ability to direct the institution but also in how they support the professional growth of their educators. Encouragement and motivation from the Head of the Early Childhood Education Unit are necessary to maintain educators' enthusiasm. Educators' motivation often wanes without ongoing encouragement. This underscores the need for sustained efforts to maintain educators' enthusiasm and dedication in carrying out their duties (Darling-hammond et.al.,2017).

Previous research conducted by Nur Khotimah & Desty Irnayanty (2023) examined the strategies employed by the principal to enhance teacher competencies at TK Pertiwi 01 Pati, with respondents limited to the principal and teachers within a single institution, and utilizing a qualitative descriptive approach. The results of this study placed greater emphasis on the description of the school principal's leadership strategies within the context of a formal institution and a relatively narrow scope. Meanwhile, studies on how ECE center heads contribute to supporting and improving the competencies of non-qualified educators remain limited, particularly in non-formal ECE units and in regional contexts. In fact, ECE unit heads play a strategic role in mentoring, supervising, facilitating training, and creating a work environment that supports continuous professional development.

This study broadens its scope by including all non-formal early childhood education (ECE) educators in Batang Regency who do not yet meet the required qualifications, thereby providing a more comprehensive and representative picture of the issues surrounding educator competencies in the region. Additionally, the novelty of this study is evident in the institutional context, specifically non-formal early childhood education, which has distinct characteristics, challenges, and management systems compared to formal early childhood education. The condition of underqualified educators in non-formal early childhood education is a critical aspect that has not been extensively examined in previous research, particularly regarding the role and contributions of center heads in enhancing their competencies. Methodologically, this study employs a mixed-methods approach, combining quantitative and qualitative methods. This approach enables the researcher to obtain more comprehensive data, both numerically and in terms of depth.

Based on this background, this study aims to analyze the competency levels of underqualified non-formal early childhood education (ECE) teachers in Batang Regency, examine the role of ECE center heads in enhancing these competencies, determine the relationship between the unit heads' contributions and teachers' competencies, and identify the efforts and strategies implemented in the competency enhancement process.

2. METHODS

This study employs a mixed-methods approach with a sequential explanatory design. In the first phase, a descriptive quantitative study was conducted to measure the competency levels of underqualified educators and the roles of Early Childhood Education Center Heads, followed by a

qualitative study to further explore and explain the quantitative findings. This design was chosen because it allows the researcher to obtain an objective statistical overview as well as a deeper contextual understanding of the efforts and strategies of center heads in improving educators' competencies.

The study population consists of 207 underqualified non-formal ECE educators in Batang Regency who are registered in the 2025 HIMPAUDI data. The sample was determined using the Isaac and Michael formula with a 5% margin of error, resulting in a sample of 137 respondents (Sugiyono, 2023: 138). The sampling technique was conducted proportionally based on the distribution of non-formal PAUD units in Batang Regency.

The quantitative research instrument consisted of a closed-ended questionnaire using a Likert scale with four response options: always (AL), often (OF), sometimes (SO), and never (NEV). The questionnaires were collected online using Google Forms to measure educators' competencies and perceptions of the contributions of Early Childhood Education Unit Heads. The qualitative instruments consisted of interview guidelines and documentation. Before use, the instruments were tested for validity and reliability. Reliability was tested using Cronbach's Alpha coefficient with a minimum threshold of 0.60, and the instruments were thus deemed reliable.

There are 44 statements to measure educators' competencies and 39 statements regarding educators' perceptions of the contributions of Early Childhood Education Center Heads. This instrument was administered to 43 respondents, namely non-formal early childhood educators. The validity of the competency instrument for non-qualified early childhood educators showed that out of 44 items, 34 had calculated r-values greater than the critical r-value and were therefore valid, while the remaining 10 had calculated r-values less than the critical r-value and were invalid. Meanwhile, for the instrument measuring perceptions of the contribution of ECE unit heads, which consists of 39 statements, 34 statements had a calculated r-value greater than the table r-value and were therefore valid, while the remaining 5 statements had a calculated r-value less than the table r-value and were therefore invalid. The reliability test results for the non-qualified educator competency instrument yielded a Cronbach's Alpha value of 0.874, and for the ECE Center Head contribution instrument, a Cronbach's Alpha value of 0.892. This indicates that both instruments are reliable.

Quantitative data analysis included descriptive statistics, normality tests, linearity tests, Pearson correlation tests, and coefficient of determination (R^2) tests. Qualitative data were analyzed thematically through the stages of data reduction, data presentation, and drawing conclusions (Creswell, 2014). This study has received academic approval from the Graduate Program at Semarang State University, where the researcher is pursuing studies as part of the thesis preparation process, and has complied with educational research ethics requirements, including voluntary participant consent.

3. FINDINGS AND DISCUSSION

3.1 Findings

3.1.1 Quantitative Findings

a. Assumption Test

Table 1. Normality Test

One-Sample Kolmogorov-Smirnov Test			
		Contributions of ECE Head	Educator competences
N		137	137
Normal	Mean	105.39	96.36
Parameters ^{a,b}	Std. Deviation	15.523	13.109
Most Extreme	Absolute	.074	.055
Differences	Positive	.069	.046
	Negative	-.074	-.055
Test Statistic		.074	.055
Asymp. Sig. (2-tailed)		.063 ^c	.200 ^{c,d}

The results of the Kolmogorov–Smirnov test indicate that the data are normally distributed. The p-values for the variable “Contribution of the Head of the Early Childhood Education Unit” were 0.063 (>0.05) and for the variable “Educator Competence” were 0.200 (>0.05). Thus, the assumption of normality is met.

Table 2. Linearity Test
ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Educator	Between	(Combined)	15301.609	53	288.710	2.969	.000
Competences *	Groups	Linearity	9503.084	1	9503.084	97.738	.000
Contributions of ECE Head		Deviation from Linearity	5798.525	52	111.510	1.147	.285
	Within Groups		8070.143	83	97.231		
	Total		23371.752	136			

The results of the linearity test showed an F-value of 2.969 with a significance level of 0.000 (<0.05). The deviation from linearity was 0.285 (>0.05), indicating that the relationship between the contribution of the Head of the Early Childhood Education Unit and educator competence is linear. This means that the competence of non-qualified educators and the contribution of the Head of the Early Childhood Education Unit are linearly distributed.

b. Determination Coefficient Test

Table 3. Test of Determination Coefficient

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.638 ^a	.407	.402	12.00217

a. Predictors: (Constant), Head contribution

The coefficient of determination (R^2) of 0.407 indicates that 40.7% of the variation in educators' competencies can be explained by the contribution of the Head of the Early Childhood Education Unit, while 59.3% is influenced by other factors outside the scope of the study. This value indicates a substantial effect size in the context of educational research.

b. Correlation Test

Table 4. Correlation Test
Correlations

		Contributions of ECE Head	Educator competences
Contributions of ECE Head	Pearson Correlation	1	.638**
	Sig. (2-tailed)		.000
	N	137	137
Educator competences	Pearson Correlation	.638**	1
	Sig. (2-tailed)	.000	
	N	137	137

** . Correlation is significant at the 0.01 level (2-tailed).

Based on the table above, the correlation test between the contribution of non-formal early childhood education unit heads and the competencies of underqualified educators yielded a Sig. (2-tailed) value of $0.000 < 0.05$; therefore, they are said to be correlated or to have a relationship. Furthermore, the Pearson correlation coefficient is 0.638, indicating that the contribution of the Head of the ECE Center and the competencies of underqualified educators are strongly correlated.

c. Statistical Data Results on the Competence of Underqualified Educators

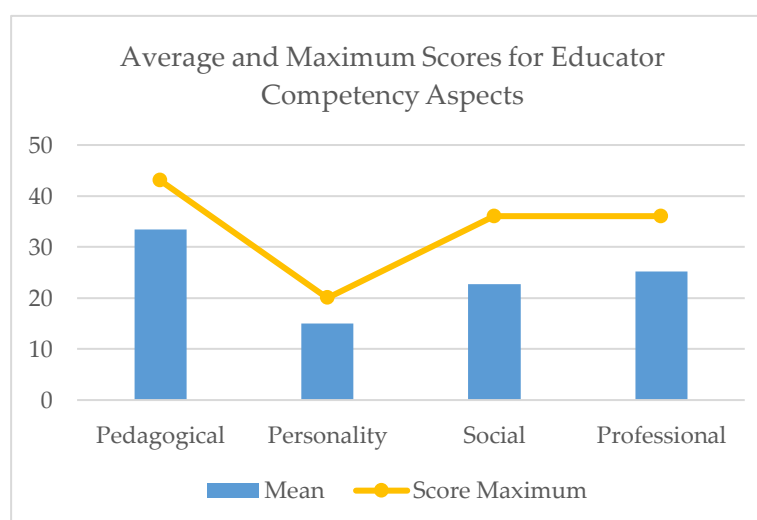
Table 5. Educator Competency Statistics Data

Competency Aspect	Minimum Score	Maximum Score	Mean	Std. Deviation	Category
Pedagogical	19.00	43.00	33.42	4.75	High
Personality	9.00	20.00	15.04	2.69	High
Social	14.00	36.00	22.74	4.52	Low
Professional	15.00	36.00	25.15	3.97	Low
N	137				

Based on the results of descriptive analysis of 137 non-qualified non-formal early childhood educators in Batang Regency, an overview of competency levels in four aspects was obtained, namely pedagogical, personality, social, and professional.

- 1) Pedagogical Competence had a minimum score of 19.00 and a maximum score of 43.00, with a mean of 33.42 and a standard deviation of 4.75. This mean score falls into the high category, indicating that most educators have sufficient ability to create a safe learning environment, carry out learning activities, and assess child development.
- 2) Personality Competence has a minimum score of 9.00 and a maximum of 20.00 with a mean of 15.04 and a standard deviation of 2.69. This score is also in the high category, which indicates that educators have the moral, emotional, and spiritual maturity to behave in accordance with educational ethics, carry out their duties responsibly, and serve as role models for their students.
- 3) Social Competence shows a minimum score of 14.00 and a maximum score of 36.00 with an average (mean) of 22.74 and a standard deviation of 4.52. This average falls into the low category, meaning that some educators still experience limitations in their ability to work together and collaborate, communicate, and establish good social relationships with fellow educators, parents, and the community, as well as their involvement in professional organizations and broader networks to improve the quality of learning.
- 4) Professional Competence has a minimum score of 15.00 and a maximum of 36.00, with an average (mean) of 25.15 and a standard deviation of 3.97. This score is in the low category, indicating that the ability to design learning materials that meet the needs of students, understanding the characteristics and learning styles of children, and using the curriculum as a guide for learning still need to be improved.

The competency levels of underqualified non-formal early ECE are shown in the following figure.

**Figure 1.** The competency levels of underqualified educators

Descriptively, pedagogical and personal competencies fall into the high category, while social and professional competencies fall into the low category. These findings indicate that although aspects of instructional management and personal maturity are quite strong, collaborative skills and professional competence still need to be strengthened.

3.1.2 Qualitative Findings

The in-depth interviews yielded seven main themes that represent the contributions of the Heads of Non-Formal Early Childhood Education Center in enhancing the competencies of underqualified educators.

a. Theme 1: Data Based Planning

1) Data Evaluation Results

The evaluation results are obtained from various sources, including teacher supervision reports and education report. This approach is taken to ensure that every teacher competency development activity is based on relevant data and aligned with actual needs.

"One way we do this is by reviewing the results of teacher supervision, then engaging all teachers in a discussion and planning competency enhancement programs tailored to their needs." (Head 5)

"We review the educational reports. These reports include findings, recommendations, and corrective actions. Then we discuss together with the teachers about the activities to be implemented, including those related to teacher competency enhancement." (Head 2)

2) Reflection Results

The Head of the Early Childhood Education Unit also conducts joint reflections with educators to determine their competency needs.

"I invite educators to engage in discussion and self-reflection. They need to identify what they need to learn and what areas may still be lacking; please feel free to share your thoughts." (Head 4)

A needs analysis is necessary to identify areas of competency that remain weak based on the results of evaluations and joint reflection. Most ECE Center Heads noted that conducting evaluations and reflection makes it easier to determine competency improvement programs with clear priorities and to tailor them to the unit's specific conditions.

b. Theme 2 : Resource Utilization

The head of the early childhood education unit optimizes available resources to enhance educators' competencies, including financial resources, human resources, and facilities and infrastructure.

1) Financial

This effort is realized by allocating a special budget for competency-enhancement activities, both small-scale and large-scale.

"We receive annual funding support from the foundation in the amount of Rp 750,000, which we allocate for educator competency enhancement activities organized by Aisyiyah." (Head 4).

"If there is information about paid tiered training programs, the school is ready to cover the costs; educators do not have to pay out of pocket." (Head 3)

2) Human Resources

The Head of the ECE Center recognizes that educators have varying skill sets. This presents an opportunity for the Head of the Early Childhood Education Unit to encourage peer learning.

"Some of our educators can draw, while others can write stories. So one creates the story, and the other illustrates it. They can learn from each other." (Head 1)

"Some of our educators are still not very tech-savvy, so I'm making an effort to have those who are already proficient or more skilled teach those who aren't yet." (Head 5)

3) Facilities and Infrastructure

The Head of the ECE Center ensures the availability of facilities and infrastructure such as IT equipment, internet access, and classrooms that can also be used for educational activities.

"Providing facilities were used for training activities and developing training materials, such as laptops, printers, office supplies, and others." (Head 2)

Thus, the utilization of resources—including financial resources, human resources, and facilities and infrastructure—constitutes an effective strategy for the Head of the ECE Center in enhancing educators' competencies. Financially, the Head of the ECE Center demonstrates a tangible commitment to enhancing educators' competencies through planning and budgeting tailored to the needs of the unit and the educators.

c. Theme 3 : Training Facilitation

Another initiative undertaken by the Head of the Early Childhood Education Unit to help educators improve their competencies is to enroll them in both formal and informal training programs.

1) Formal Training

The formal training programs include tiered training, thematic training, seminars, and workshops organized by the Department of Education, training providers, and professional organizations. As stated by the Head of the ECE Center below.

"We have enrolled our educators who do not yet hold a bachelor's degree in ECE in tiered training programs, even at the advanced level. They participate in those organized by the Department of Education, so they are free. Some also attend training organized by HIMPAUDI, which is paid." (Head 3)

2) Informal Training

Educators must continuously strive to improve their competencies; even after completing formal training, their knowledge must remain up to date. This is especially true today, given issues related to a paradigm shift in the curriculum, teaching modules, in-depth lesson planning, and other matters that naturally pose unique challenges for early childhood educators. Therefore, they need to engage in ongoing competency development through informal training.

"We conduct self-directed training on instructional planning and classroom management. We invite experts to train our teachers." (Head 3)

"I encourage educators to actively access self-directed training through PMM—now known as Ruang GTK—and it's free." (Head 2)

Educators' participation in both formal and informal training serves as a key strategy employed by ECE Center Heads to foster continuous and adaptive competency development in response to evolving policies and learning needs.

d. Theme 4 : Internalization of Values and Professional Exemplarity

This competency improvement effort is achieved through role models, strengthening, and character development of educators.

1) Role Modeling

The strategy involves direct examples, formal and informal reinforcement, and coaching. Formal means planned and scheduled regularly, while informal means incidental or occasional, as needed. As stated by the Head of the ECE Center below:

"Setting an example for educators. So, I do it first, setting up the play equipment, teaching in class. By doing so, I hope educators will emulate what I do, and so far it's been quite successful." (Head 2).

"I only provide conditional reinforcement and coaching because I'm busy. Usually, I invite them to hang out, have a meal. So...that's where I insert reinforcement." (Head 3)

2) Strengthening and Character Development for Educators

The head of another ECE Center provides formal training and guidance, held once every three months, specifically designed to develop educators' character and religious values.

"Here we have the UPA (Unit Pektanan Anggota), which, together with the foundation, is tasked with guiding educators in developing their character, strengthening their faith and piety, and refining their behavior and conduct, as educators." (Head 5)

This approach demonstrates that the role of the Head of the ECE Center is highly strategic in creating an environment that supports both the professional development and personal growth of educators, thereby hopefully having a positive impact on the quality of learning and the development of young children.

e. Theme 5 : Collaboration Across ECE Centers

Cross-unit collaboration in ECE, led by the ECE Center Head, takes the form of partnerships with professional organizations and participation in learning forums.

1) Partnerships with Professional Organizations

The ECE Center Head establishes partnerships with professional organizations to provide educators with access to professional development opportunities. Through these partnerships, educators have the opportunity to participate in training sessions, seminars, and best-practice sharing activities organized by these organizations. As stated by the following ECE Center Heads:

"I look for information to see if there are any training opportunities being organized by HIMPAUDI or IGABA. But usually, if there is a training program, they notify us at least a month in advance." (Head 1)

"We participated in a book discussion organized by HIMPAUDI Batang Regency. We had all our educators attend." (Head 6)

2) Participating in Learning Forums

Meanwhile, other ECE units have joined learning forums or cross-unit learning communities, including with KB (Play group), TPA (Childcare), TK (Kindergarten) and RA (Islamic Kindergarten) units, with a broader scope covering the Batang Regency.

"We are part of the Sekolah Penggerak learning community. Additionally, there is an early childhood education cluster whose members are KB and TK teachers within the subdistrict. We also participate in the Kombel GPP Batang activities. I encourage educators to be bold in sharing best practices with their peers." (Head 2)

Collaboration with professional organizations and active participation in learning forums and communities provide a space for educators to share knowledge, experiences, and best practices with one another.

f. Theme 6 : Creating a Positive Work Environment

The Head of the ECE Center strives to create a positive work environment through support and trust in educators, fostering open communication, and offering recognition.

1) Support and Trust

As a form of support, the head of the early childhood education unit facilitates all the needs of educators in carrying out their duties and responsibilities, such as IT equipment, office supplies, guidebooks, and play equipment.

"Whatever the educators need, we provide. If we're short on play equipment, I can buy more or use items around us for learning." (Head 2)

2) Open Communication

In addition, good communication also greatly contributes to creating a comfortable work environment. All ECE Center Heads stated that they strive to establish communication and

harmonious relationships with all educators. This is reflected in the statements of the ECE Center Heads.

"I greet the educators every day at school. Sometimes, due to my busy schedule, I try to check in with them via the WhatsApp group." (Head 3)

"After finishing teaching, the teachers don't go home right away; we usually have a casual chat. They can talk about anything—teaching, dealing with children, or other matters unrelated to school." (Head 4)

3) Awarding Recognition

The creation of a positive work environment is also fostered by the ECE Center Head through the awarding of recognition to educators. Research findings indicate that there is variation in the implementation of these recognition practices.

"I give recognition to the teacher who always arrives the earliest. The gift is a bag, and I provide it personally without using school funds." (Head 3)

The award demonstrates the personal attention and concern of the Head of the ECE Center. It also reflects empathy on the part of the Head of the ECE Center, who was willing to use personal funds.

A different perspective was shared by another Head of the Early Childhood Education Unit.

"Here, the award is given in the form of an additional performance allowance. This is based on the results of the teacher performance evaluation." (Head 5)

Recognition for educators is also provided in non-material forms without specific criteria, meaning it is distributed equally to all educators through recreational activities such as visiting tourist spots, dining together, and watching movies.

"As for criteria, we haven't gotten there yet, since the number of teachers is small. But to appreciate what they've done, we usually take them out to eat or sometimes watch a movie." (Head 2)

These efforts demonstrate that the Head of the Early Childhood Education Unit serves not only as an administrative leader but also as a motivator capable of fostering harmonious interpersonal relationships with educators.

g. Theme 7 : Continuous Competency Development

Efforts to improve the competencies of unqualified early childhood educators do not stop at the strategies that have already been implemented; they also require forward-looking planning and orientation to ensure that competency development can proceed sustainably. Based on the interview results, the Head of the ECE Center demonstrated a commitment to and awareness of the importance of follow-up measures to strengthen educators' professionalism, namely accelerating educators' academic qualifications and facilitating access to funding.

1) Accelerating Academic Qualifications

The Head of the ECE Center views the need for more targeted follow-up measures so that competency enhancement does not stop at training alone. The Head of the ECE Center encourages and motivates educators to continue their studies toward formal education, particularly a Bachelor's degree in Early Childhood Education (S-1 PAUD), as a means of strengthening competencies and professionalism.

"I will encourage and motivate them to pursue a Bachelor's degree in Early Childhood Education to meet the standards, especially since I've heard there's now an RPL program, so those who have already participated in tiered training can complete their studies more quickly." (Head 4)

"My hope is that they can pursue a bachelor's degree in Early Childhood Education, not just attend training courses. I encourage educators to upgrade their qualifications so that, should an opportunity arise, they'll already have a ticket." (Head 6)

2) Based on the statement above, it is evident that the Head of the ECE Center is committed to encouraging educators to pursue formal education up to the Bachelor's degree in Early Childhood Education as part of efforts toward continuous competency development. The encouragement and motivation conveyed not only emphasize meeting qualification standards but also taking advantage of available opportunities, such as the *Rekognisi Pembelajaran Lampau* (RPL) program, as a fast-track pathway for educators who have completed tiered training programs.

3) Accelerating Access to Funding

Access to funding is a strategy that ECE Center Heads consider crucial for supporting the ongoing professional development of educators, particularly those who have not yet met academic qualifications. Financial constraints often pose the primary obstacle for educators seeking to pursue higher education. Therefore, the role of the Head of the ECE Center is not limited to providing motivation but also includes efforts to open access to various funding sources that enable educators to pursue further studies.

"So far, there hasn't been any funding assistance for educators' further studies, but perhaps in the future I will try to communicate with the foundation." (Head 5)

"Maybe I'll look for information; perhaps there are scholarship opportunities for educators who haven't gone to college yet." (Head 2)

In this context, ECE Center Heads are exploring potential funding support through communication with foundations or external sources such as scholarships.

3.2 Discussion

3.2.1 Educators' Competency Levels

Research findings indicate that the competencies of unqualified non-formal early childhood educators fall into the high category in terms of pedagogical and personal aspects, but are low in terms of social and professional aspects. This means that although these educators are relatively strong in managing the learning process and demonstrating stable personal character, they remain weak in social networking and in mastering in-depth professional knowledge. In general, educators already possess good pedagogical and personal competencies; they are able to manage early childhood learning with patience, compassion, and creativity. However, in the social and professional aspects, their abilities still need to be improved. Many educators lack the confidence to collaborate, communicate effectively, or update their knowledge in line with contemporary developments. This finding is also supported by research by Apriliyanti (2020) and Mthanti & Msiza (2023) which highlights that enhancing the competencies of early childhood educators heavily depends on opportunities to participate in training, institutional support, financial support, and active interaction and leadership from the head of the unit. This means that while educators may be enthusiastic, without adequate guidance and facilities, their potential struggles to develop. Thus, the findings of this study reinforce that competency gaps among non-qualified educators are a common phenomenon, particularly within the context of non-formal education.

3.2.2 The Impact and Relationship of ECE Center Heads' Leadership on Educators' Competencies

The research findings indicate that the leadership of ECE Center Heads has a significant impact on and is significantly associated with the improvement of non-qualified educators' competencies. This is indicated by a correlation coefficient of 0.638 with a significance level of 0.000 ($p < 0.05$), suggesting a fairly strong positive relationship between the unit head's contributions and educators' competencies. Additionally, a coefficient of determination of 40.7% indicates that the unit head's contribution has a substantial influence in explaining variations in educators' competencies.

These findings suggest that the more effectively the Head of the ECE Center performs mentoring, supervision, and facilitation of professional development, the higher the resulting level of educators' competencies. This relationship is linear and consistent, where improved leadership quality is followed

by increased educator competence. Unit heads who are active in creating spaces for reflection, encouraging participation in training, and fostering open communication have proven capable of creating a learning environment conducive to educators' professional development.

Theoretically, these findings align with the concept of instructional leadership, which positions the school principal as the primary driver of improvements in the quality of learning through the functions of supervision, guidance, and reinforcement of pedagogical practices (Mutiarra et al., 2024). This is consistent with the findings of He et al., (2024) and Nellitawati et al., (2024), who state that the role of the school principal as an instructional leader and motivator of teachers can enhance teachers' professional development and teaching practices. Unit heads who routinely conduct supervision, reflective discussions, and internal training are able to build a culture of continuous learning within their institutions (Kilag & Sasan, 2023; Ma & Marion, 2021). This serves as evidence that leadership in early childhood education does not stop at administrative matters but extends further as a process of developing human resources, one of which is educators.

Leadership practices focused on data utilization, reflection, and training facilitation demonstrate systematic efforts to enhance educators' capacity. On the other hand, the dimensions of transformational leadership are also reflected in school principals' efforts to build motivation, set a good example, and create a positive and supportive work environment (Roni Harsoyo, 2022). This is also highlighted by Jalidar & Alias (2024), who state that instructional leadership practices are relevant for school principals to implement and can help develop teachers' potential. This principle is also relevant in the context of non-formal ECE, where unit heads function as mentors and learning facilitators for teachers who lack formal academic qualifications.

Thus, the leadership of the ECE Center Head not only contributes significantly to enhancing educators' competencies but also plays a crucial role in fostering a continuous professional development process. Effective leadership integrates instructional and transformational aspects, thereby not only improving educators' technical skills but also strengthening their motivation, commitment, and professional awareness in performing their duties.

3.2.3 Strategies of Early Childhood Education Center Heads for Improving the Competence of Unqualified Educators

Research findings indicate that heads of non-formal PAUD units employ various strategies to enhance the competencies of unqualified educators, including utilizing evaluation results and reflection, leveraging resources, facilitating training, internalizing professional values and setting a professional example, fostering cross-unit collaboration, creating a positive work environment, and promoting continuous competency development. These strategies do not stand alone but are mutually integrated to support the gradual and contextual improvement of educators' pedagogical, professional, and social competencies.

The use of evaluation and reflection results serves as the primary foundation for designing competency development programs. Unit heads utilize the results of supervision and joint reflection to identify educators' actual needs, such as weaknesses in lesson planning and classroom management. Based on these needs, unit heads then design programs such as training sessions, inviting guest speakers, and study visits to other institutions. This practice demonstrates that competency development is data-driven and needs-based, aligning with Guskey's (2002) model of professional development, where the process begins with needs identification, proceeds with development activities, and concludes with an evaluation of its impact on teaching practices.

Furthermore, strategies for facilitating training and utilizing resources indicate a systematic effort to provide support for enhancing educators' competencies. Center heads not only involve educators in various formal training programs but also allocate available resources to ensure the sustainability of development programs. This reinforces the implementation stage in Guskey's model, where the success of professional development is determined by institutional support as well as opportunities for teachers to apply training outcomes in real-world practice.

On the other hand, strategies for cross-departmental collaboration, the internalization of values and professional role modeling, and the creation of a positive work environment reflect a social learning

approach aligned with the concept of a community of practice (Wenger, 2000). Through collaboration across departments, learning community activities, and daily interactions among educators, a process of sharing experiences and best practices takes place, supporting collective competency development. The creation of a positive work environment through open communication, support, and trust also strengthens educators' engagement in the collaborative learning process. These conditions enable educators to be more active in experimenting and developing innovative teaching practices.

Furthermore, the research findings also indicate a focus on continuous competency development through encouragement to pursue formal education and efforts to provide access to funding for educators. This strategy reflects the principle of continuous professional development (CPD), which emphasizes that improving teachers' competencies is a long-term process that occurs gradually through a combination of formal education, training, and work experience. In this context, the unit head serves not only as a training facilitator but also as an agent of change who encourages educators to continue developing professionally. This approach aligns with the concept of continuous professional development (CPD), which emphasizes that the improvement of teachers' competencies is a continuous process that occurs throughout their professional careers, not an incidental activity (Creswell, 2009)(Day, 1999). In this context, competency development is not only achieved through formal training but also through work experience, reflection, collaboration, and self-directed learning.

Thus, the strategy implemented by the Head of the ECE Center demonstrates an integration of structural and social approaches in the professional development of educators. The structural approach is reflected through evaluation-based planning, training facilitation, and resource support, as described in Guskey's model. Meanwhile, the social approach is reflected through collaboration, shared learning, and the fostering of a positive work culture, as proposed by Wenger. The integration of these two approaches is key to enhancing the competencies of non-qualified educators in a sustainable and context-specific manner.

This study has several limitations that should be considered when interpreting the results. First, the data were primarily obtained from self-report questionnaires and interviews, which may introduce social desirability bias—where respondents tend to provide answers they believe align with expectations. Second, this study is limited to a specific regional context, so generalizing the findings to a broader context must be done with caution. Additionally, this study has not examined other factors that could potentially influence educators' competencies, such as individual motivation, organizational culture, or broader policy support.

The findings of this study have important implications at both the policy and practice levels. At the policy level, the results of this study indicate the need to strengthen leadership training programs for ECE Center Heads, particularly those focused on instructional and transformational leadership to support the development of educators' competencies. Furthermore, the government needs to expand access to continuous professional development programs, such as tiered training and support for advanced studies for non-qualified educators.

In practice, heads of early childhood education units are expected to integrate evaluation-based, training-based, and collaborative approaches in developing educators' competencies. The creation of learning communities and a positive work environment are also key factors in supporting continuous professional development. Thus, the development of educators' competencies depends not only on formal programs but also on leadership practices that foster a culture of learning within early childhood education units.

4. CONCLUSION

This study concludes that the competencies of underqualified non-formal early childhood education educators in Batang Regency vary across competency domains, with pedagogical and personal competencies categorized as high, while social and professional competencies remain relatively low. The findings also show a positive and significant relationship between the contributions of ECE center heads and educators' competencies, indicating that leadership practices such as data-based planning, resource optimization, training facilitation, professional value internalization, inter-institutional collaboration, the creation of a positive work climate, and continuous professional

development are associated with stronger educator competency development. However, this study is limited by its reliance on self-report questionnaires and interviews, its focus on one regional context, and its exclusion of other possible influencing factors such as educator motivation, institutional culture, policy support, and access to professional learning opportunities. Future research is therefore recommended to employ longitudinal or comparative designs across different regions, include broader institutional and individual variables, and examine how leadership strategies implemented by ECE center heads contribute not only to educator competency improvement but also to the quality of learning practices and child development outcomes in non-formal early childhood education settings.

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