

**Development and Acceptability of Early Childhood Module focusing on Cooperative Learning for Daycare Center in Antipolo**

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**Table of Contents**

	<b>Page</b>
Endorsement .....	iv
Certificate of Originality .....	v
List of Tables .....	vi
List of Figures .....	vii
List of Appendices .....	viii
Abstract .....	ix
1.0 Introduction.....	1
2.0 Background of the Study.....	2
2.1 Theoretical Framework .....	2
2.2 Conceptual Framework .....	3
2.3 Variable Discussion .....	3
2.4 Literature Review .....	3
2.5 Statement of the Problem .....	20
3.0 Research Method .....	20
3.1 Research Design .....	21
3.2 Research Locale .....	21
3.3 Research Instrument .....	21
3.4 Data Analysis .....	21
3.5 Data Collection .....	22
3.6 Population and Sampling .....	23
3.7 Research Ethics .....	23
4.0 Results and Discussion .....	23
5.0 Discussion .....	35

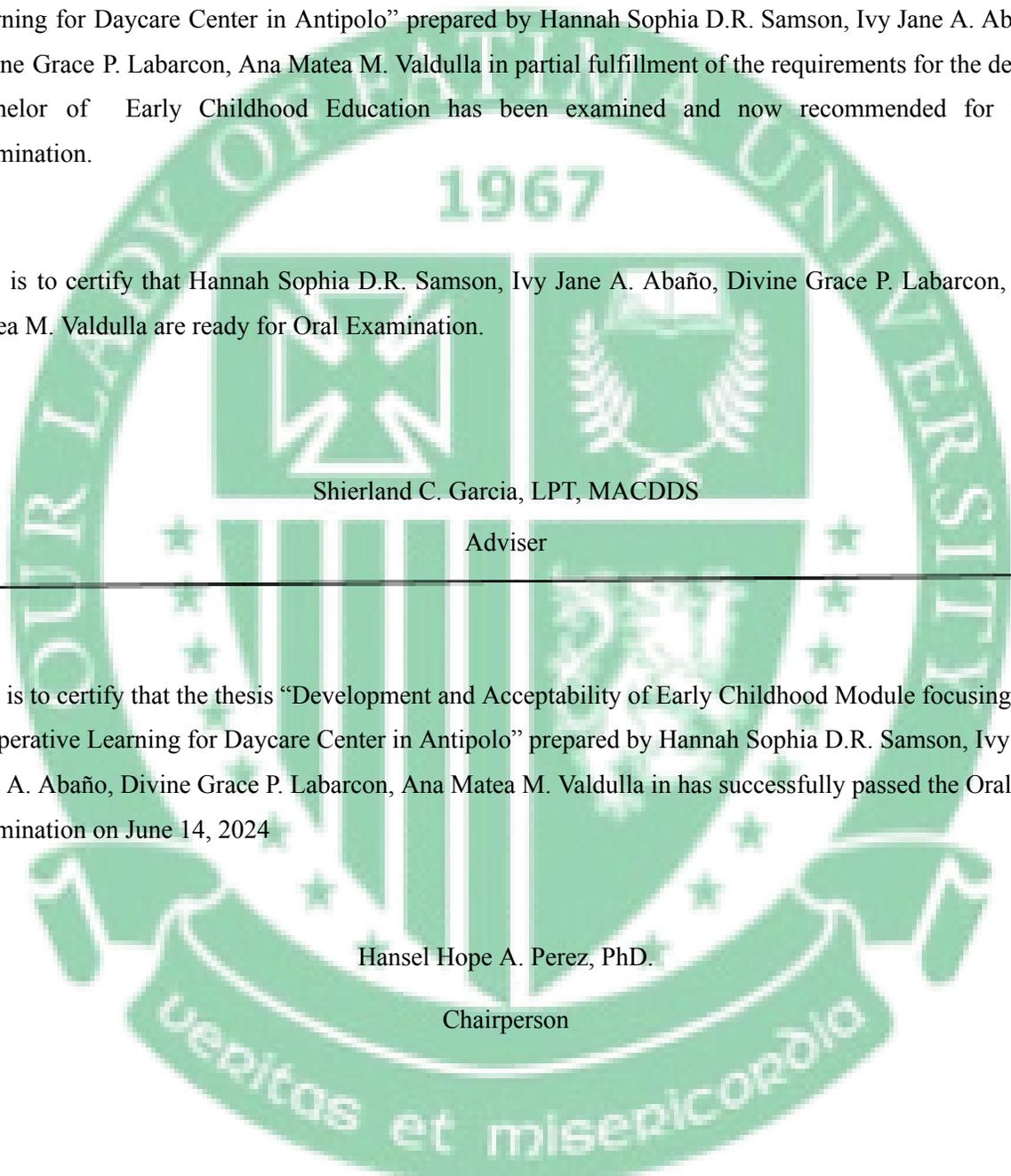
DEVELOPMENT AND ACCEPTABILITY OF EARLY CHILDHOOD MODULE...

5.1 Summary of Findings .....	35
5.2 Conclusion .....	36
5.3 Recommendations .....	37

**ENDORSEMENT**

This thesis entitled “Development and Acceptability of Early Childhood Module focusing on Cooperative Learning for Daycare Center in Antipolo” prepared by Hannah Sophia D.R. Samson, Ivy Jane A. Abaño, Divine Grace P. Labarcon, Ana Matea M. Valdulla in partial fulfillment of the requirements for the degree Bachelor of Early Childhood Education has been examined and now recommended for Oral Examination.

This is to certify that Hannah Sophia D.R. Samson, Ivy Jane A. Abaño, Divine Grace P. Labarcon, Ana Matea M. Valdulla are ready for Oral Examination.



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This is to certify that the thesis “Development and Acceptability of Early Childhood Module focusing on Cooperative Learning for Daycare Center in Antipolo” prepared by Hannah Sophia D.R. Samson, Ivy Jane A. Abaño, Divine Grace P. Labarcon, Ana Matea M. Valdulla in has successfully passed the Oral Examination on June 14, 2024

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### **CERTIFICATE OF ORIGINALITY**

This is to certify that this research paper was originally constructed by the researchers, with the guidance of the professionals who helped to acknowledge, review, and approve this research. This research paper does not contain any material previously published or written by another person nor material that has been accepted for the award of any degree or diploma in Our Lady of Fatima University - Antipolo and other higher educational institutions.

Sincerely,

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**List of Tables**

	<b>Page</b>
Table 1.1: Demographic Profile .....	23
Table 2.1: Positive Interdependence .....	27
Table 2.2: Individual and Group Accountability .....	28
Table 2.3: Interpersonal and Small Group Skills .....	29
Table 2.4: Face-to-Face Interaction .....	31
Table 2.5: Group Processing .....	32
Table 2.6: Summary of the Level of Acceptability .....	33
Table 3: Significance Difference in Acceptability Ratings Among Five Factors. ....	

**List of Figures**

	<b>Page</b>
Figure 1: The Research Paradigm of Development and Acceptability of Early Childhood Module for Daycare Center focusing on Cooperative Learning.....	3

**List of Appendices**

	<b>Page</b>
Appendix A: Survey Questionnaire .....	39
Appendix B: Sample Early Childhood Cooperative Learning Module .....	46
Appendix C: Consent Form .....	47
Appendix D: Tally sheet .....	51
Appendix E: Ethical Review Certificate .....	53
Appendix F: Certificate of Questionnaire Validation .....	54
Appendix G: Statistician's Certificate .....	57
Appendix H: Letter of Request for Endorsement Letter .....	58
Appendix I: Certificate of Appearance (CSWD) .....	59

### **Abstract**

Despite its long-standing presence in educational theory, cooperative learning has not achieved the same widespread adoption as differentiated instruction or blended learning. This approach involves students working together in small groups to achieve shared learning objectives, contrasting with traditional lecture-based methods. With this, the researcher aimed to create an environment that fosters collaboration, shared responsibility, and effective communication among young learners. Using a quantitative comparative research design, the researchers distributed questionnaires to two-hundred-one (201) daycare centers in both District 1 and District 2 in the City of Antipolo. The questionnaire assessed various factors such as educator perceptions, student engagement, and the overall effectiveness of the cooperative learning module.

Findings reveal that there is a typical gender distribution in early childhood education settings, where female educators dominate. Additionally, results indicated that the cooperative learning module significantly improved both academic performance and social skills among young learners. The consistent high ratings across these factors suggest that the module is well-designed to meet the educational needs of young learners, fostering both academic and social development. It was also revealed that there is a statistically significant difference in the acceptability ratings among the five factors evaluated in the study, including educator satisfaction, student engagement, resource adequacy, implementation ease, and overall effectiveness.

The results indicate that the observed differences among group means are not due to chance, suggesting that the respondents perceive the various components of the cooperative learning module differently. This study contributes to the understanding of effective integration of the learning module toward teaching. Further, it enhances the educational climate by promoting a collaborative learning environment among students. These findings underscore the potential benefits of cooperative learning in early childhood education and provide valuable insights for educators and policymakers aiming to implement such approaches.

## 1.0 Introduction

Cooperative learning, despite its long-standing presence in educational theory, has not attained the same widespread adoption as differentiated instruction or blended learning (Elmo, 2017; Zook, 2018). This approach involves students working together in small groups to achieve shared learning objectives, contrasting with traditional lecture-based methods (Lewis, 2019). Advocates argue that cooperative learning enhances student engagement by leveraging social interaction and reducing classroom management challenges (Rigacci, 2020).

Research underscores the versatility of cooperative learning across educational levels and subjects, facilitating both academic learning and socialization (Gillies, 2014). By assigning specific tasks within groups, cooperative learning naturally encourages effective collaboration among students (Zook, 2018). Moreover, its adaptable guidelines accommodate diverse educational tasks, from basic exercises to complex projects (Lewis, 2019).

Despite its potential benefits, empirical studies reveal varying effectiveness of cooperative learning practices, which may contribute to its limited adoption in educational settings (Lewis, 2019; Page, 2017). This approach promotes cooperative student participation and supports a positive learning environment characterized by mutual dependence among group members (Bartsch, 2017; Alyssa, 2022). However, challenges such as perceived obstacles to effective collaboration and mixed impacts on educational outcomes remain significant considerations (Le et al., 2017; Chandra, 2015; Zambrano et al., 2019; Sotto, 2021).

This study explored the relevance of cooperative learning within daycare centers, focusing on its impact on student engagement and learning outcomes. The research assessed the acceptability and effectiveness of an Early Childhood Cooperative Learning Module to contribute to understanding the complexities and potential benefits of cooperative learning in educational practice. Specifically, the study examined the profile of teacher-respondents in terms of sex, civil status, highest educational attainment, age, and years in service. It also evaluated the level of acceptability of the Early Childhood Cooperative Learning Module across dimensions such as positive interdependence, individual and group accountability, interpersonal and small group skills, face-to-face interaction, and group processing. Statistical analysis was conducted to determine if there was a significant difference in acceptability ratings among these factors.

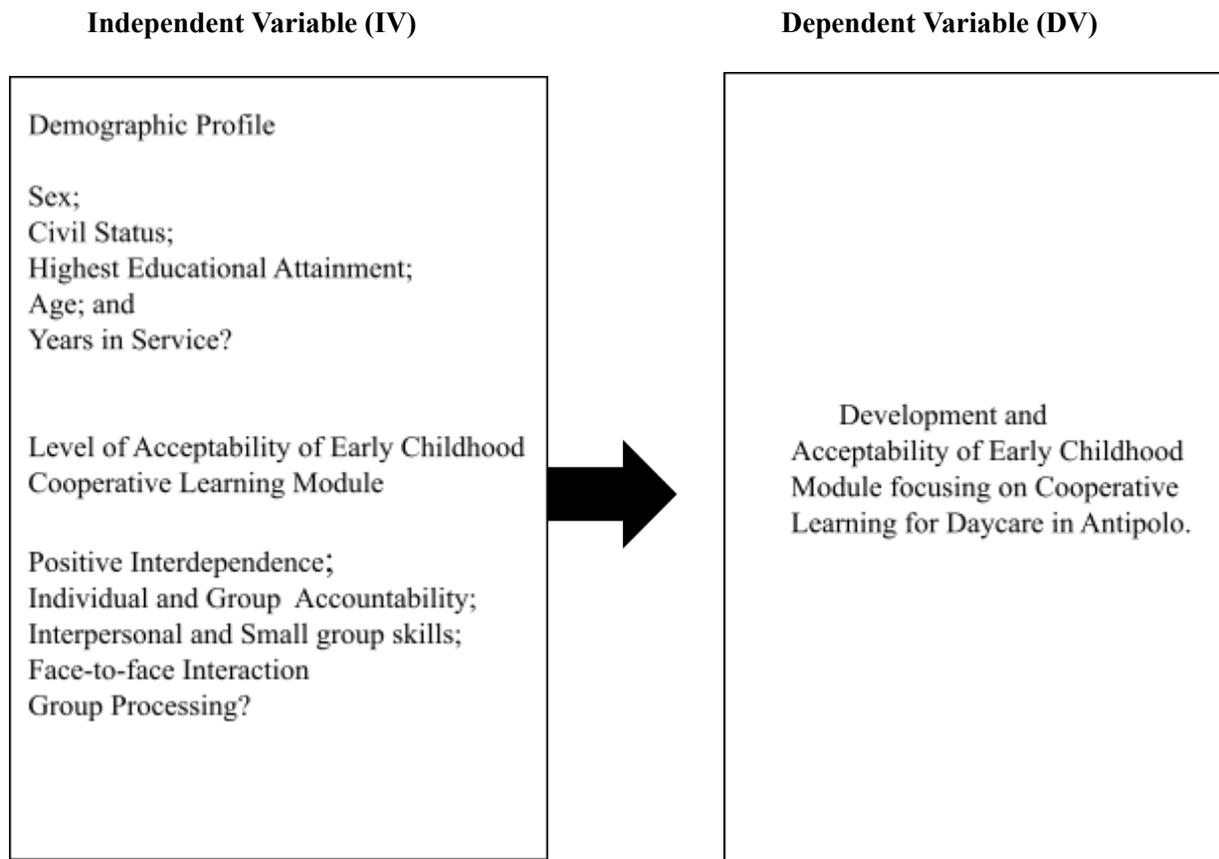
## **2.0 Background**

### **2.1 Theoretical Framework**

This study adopts the cooperative learning theory by Ivan Andreev (2023) as its primary theoretical framework. Andreev's theory describes cooperative learning as an instructional method where small groups of students work together on activities and assignments to enhance their understanding and learning process. Each participant is responsible for acquiring new knowledge and skills while supporting their teammates' learning. The theory identifies five fundamental components of cooperative learning: Positive Interdependence, where members recognize their shared success or failure; Individual and Group Accountability, ensuring equal contribution towards common goals; Interpersonal and Small Group Skills, which are essential for effective teamwork; Face-to-Face Engagement, involving direct interaction and verbal problem-solving; and Group Processing, where team members regularly assess their progress and celebrate achievements.

This theory is directly related to the research as it provides a structured framework for developing cooperative learning modules for daycare centers. By incorporating Andreev's components, the research aims to create an environment that fosters collaboration, shared responsibility, and effective communication among young learners. The theory's emphasis on active participation and mutual support aligns with the research's objective of enhancing student engagement and learning outcomes. Additionally, the benefits highlighted by Andreev, such as the development of life skills, improved communication, and increased tolerance and diversity, are critical for the holistic development of children in daycare settings. Thus, the cooperative learning theory not only guides the design of the modules but also ensures that the research addresses the cognitive, social, and emotional needs of the students.

## 2.2 Conceptual Framework



*Figure 1. The Research Paradigm of Development and Acceptability of Early Childhood Module for Daycare Center focusing on Cooperative Learning*

## 2.3 Variable Discussion

### 2.3.1 Sex

Gender diversity among teachers holds significant implications for early childhood education. A mix of male and female teachers can provide diverse role models, challenging gender stereotypes and promoting inclusivity (Nashriyah et al., 2017.) For instance, male teachers may offer nurturing and caring qualities traditionally associated with female educators, while female teachers can exemplify leadership and resilience. This diversity can positively impact children's perceptions of gender roles, creating a more inclusive learning environment.

Gender diversity among teachers plays a pivotal role in early childhood education, influencing not only the dynamics of the classroom but also the social and emotional development of children.

Nashriyah et al. (2017) emphasized that a balanced representation of male and female teachers can foster inclusivity and challenge traditional gender stereotypes. Male educators, for example, can demonstrate nurturing qualities often linked to female educators, while female teachers can showcase leadership traits, thereby broadening children's perspectives on gender roles.

Cameron (2020) explored the impact of male educators in early childhood settings, highlighting their ability to serve as positive role models, particularly for young boys. The study revealed that having male teachers contributes to a balanced and diverse learning environment, which helps children develop a more comprehensive understanding of gender equality and cooperation. Together, these findings suggest that gender diversity among educators enhances the overall quality of early childhood education.

### ***2.3.2. Civil Status***

As stated by Odanga et al. (2019), the civil status of teachers, whether married or single, can influence their availability and work-life balance. Married teachers may have additional familial responsibilities, potentially affecting their engagement in cooperative activities. Conversely, single teachers might have more flexibility and time to invest in collaborative efforts. Understanding and accommodating these differences in civil status can contribute to effective teamwork and cooperative initiatives in early childhood education settings.

The civil status of teachers has been found to influence their work dynamics and overall engagement in educational settings. According to Odanga et al. (2019), married teachers often juggle familial responsibilities alongside their professional duties, which can sometimes limit their availability for extracurricular or cooperative activities. On the other hand, single teachers tend to exhibit greater flexibility and availability, enabling them to actively participate in team-based initiatives and contribute more time to professional development opportunities.

Nadeem and Fatima (2021) explored how civil status impacts teacher stress and workload management. Their findings indicated that married teachers frequently experience role conflict, as balancing family commitments with job responsibilities can lead to fatigue and reduced classroom engagement. However, schools that implement family-friendly policies and support mechanisms can help mitigate these challenges and enhance teacher productivity.

Rahman and Bakar (2020) highlighted that single teachers often demonstrate higher levels of collaboration and engagement in workplace activities, which positively influences team performance and the implementation of innovative teaching practices. Their study underscores the importance of understanding the varying needs of teachers based on their civil status to foster inclusivity and efficiency in early childhood education.

### ***2.3.3 Highest Educational Attainment***

Alam and Mohanty (2023) noted that the educational background of teachers is a crucial factor in shaping their understanding of child development and pedagogical practices. Teachers with advanced degrees may possess a deeper theoretical knowledge and research-based insights, contributing to the enhancement of cooperative work. Their expertise can elevate the quality of collaborative initiatives, ensuring that early childhood education practices align with the latest research findings and best practices.

The highest educational attainment of teachers significantly impacts their capacity to deliver quality education and engage in cooperative learning strategies. Alam and Mohanty (2023) emphasized that teachers with advanced degrees often possess extensive theoretical knowledge and research-based insights, enabling them to implement innovative teaching methods effectively. This expertise not only enhances individual teaching practices but also contributes to team-based initiatives by introducing evidence-based approaches to early childhood education.

Brown and Carter (2022) explored the link between educational attainment and leadership in collaborative settings. Their findings revealed that teachers with higher academic qualifications are more likely to take on leadership roles in team-based projects, fostering an environment of professional growth and mentorship. Such teachers often guide their colleagues in implementing pedagogical strategies that are aligned with the latest educational trends.

Similarly, Zhang and Lee (2021) highlighted that educators with postgraduate qualifications tend to have a more nuanced understanding of child development and learning theories. This advanced knowledge facilitates effective collaboration, as they can share insights and strategies that improve classroom dynamics and student outcomes. These findings underscore the importance of investing in professional development opportunities for early childhood educators to enhance their qualifications and teaching competencies.

#### ***2.3.4. Age***

The role of age is significant in molding a teacher's approach to instruction and their ability to adapt to changing pedagogical strategies. As highlighted by Rapanta et al. (2021), younger educators frequently bring a new viewpoint, readily embracing technological advancements and modern teaching approaches. Conversely, seasoned teachers draw upon extensive classroom experience and traditional teaching methods. In a cooperative setting, a varied age range can stimulate a lively exchange of ideas, cultivating an atmosphere where the amalgamation of youthful enthusiasm and experienced sagacity contributes to the overall improvement of early childhood education quality.

Age plays a pivotal role in shaping teachers' instructional methods and their adaptability to emerging educational trends. Rapanta et al. (2021) observed that younger teachers tend to be more adept at integrating technology and contemporary teaching methodologies into their classrooms. Their familiarity with digital tools and innovative practices often brings fresh perspectives to cooperative learning environments, fostering creativity and modernization.

McKenzie and Robson (2022) highlighted the contributions of older educators, who often rely on years of experience and tried-and-tested strategies to manage classrooms effectively. Their expertise in handling diverse student needs and situations provides a stabilizing influence in collaborative settings. The combination of seasoned judgment and pragmatic teaching methods adds depth to team dynamics and enhances decision-making in educational practices.

Johnson and Ali (2020) emphasized that intergenerational collaboration among teachers of varying age groups promotes a healthy exchange of ideas. Younger educators benefit from the mentorship and insights of their senior counterparts, while experienced teachers gain exposure to innovative approaches. This synergy can lead to the development of well-rounded, inclusive, and effective early childhood education programs.

#### ***2.3.5. Years in Service***

According to Beck (2020), experience in the teaching profession brings a wealth of insights and expertise. Veteran teachers, with years of classroom experience, offer stability and mentorship to collaborative efforts. They may guide newer teachers and contribute institutional knowledge that enriches cooperative endeavors. Conversely, newer teachers may infuse cooperative work with fresh

perspectives, innovative ideas, and a willingness to embrace contemporary teaching methodologies, creating a balanced and dynamic collaborative environment.

The number of years a teacher has spent in service significantly influences their approach to collaboration and their contributions to educational environments. Beck (2020) emphasized that veteran teachers, with their wealth of experience, offer invaluable stability and guidance to their colleagues. Their deep institutional knowledge and expertise provide a strong foundation for cooperative teaching practices, helping to mentor newer educators and facilitate more effective classroom management and decision-making.

In a similar vein, Farley and Swenson (2022) discussed how teachers with extensive years of service often act as pillars of support in educational settings, contributing to the professional development of younger teachers. Their experience allows them to navigate classroom challenges effectively, offering practical insights that improve the quality of collaborative teaching initiatives. Furthermore, their long tenure often enables them to introduce traditional, yet highly effective, teaching strategies that complement modern pedagogical approaches.

Conversely, new teachers with fewer years of service can bring innovative ideas and a fresh outlook to collaborative work. As noted by Sargent and Wells (2021), early-career educators are more likely to embrace new technologies and teaching methodologies, which can invigorate collaborative efforts and drive innovation in early childhood education. Their enthusiasm for contemporary strategies, combined with the mentorship of seasoned colleagues, contributes to a dynamic and balanced teaching environment.

### ***2.3.6. Positive Interdependence***

Positive interdependence is a critical factor in successful cooperative work. It refers to the mutual reliance of teachers on each other to achieve common goals. In the context of early childhood education, positive interdependence fosters a sense of shared responsibility and commitment among teachers. When educators collaborate seamlessly, drawing on each other's strengths and supporting areas of growth, cooperative efforts result in more effective teamwork and improved outcomes for the children (Tamimy et al., 2023).

Incorporating cooperative learning into daycare modules involves emphasizing positive interdependence among group members, which is widely recognized in elementary schools for its significant social and cognitive benefits (Gillies, Millis, & Davidson, 2023). Positive resource interdependence in cooperative learning can foster cooperation but may also lead to informational dependence, which can impact learning outcomes (Gillies, Millis, & Davidson, 2023). Therefore, when developing an early childhood module that focuses on cooperative learning for daycare, it is crucial to balance the benefits of cooperation with potential challenges related to resource interdependence. The module should strive to create a sense of complementarity among children, where the success of one child benefits all, while also ensuring that each child has access to the necessary resources for independent learning and growth. By structuring activities to promote both cooperation and individual learning within the daycare setting, the module can effectively harness the advantages of positive interdependence while mitigating its potential drawbacks (Gillies, Millis, & Davidson, 2023).

In a study by Mulin and Hongbo (2020), they investigated the impact of various cooperative learning patterns on learners' positive interdependence and autonomous learning abilities in English. Employing a blended cooperative learning approach grounded in the hypothesis of "output-driven, input-enabled," the study conducted a 24-week contrastive teaching experiment alongside a questionnaire survey. Findings revealed that learners participating in blended cooperative learning exhibited significantly higher levels of positive interdependence, particularly in resource interdependence. Moreover, this approach led to notable improvements in overall autonomous learning ability, although gains in strategy-oriented ability were less pronounced. Correlation analysis indicated positive associations between positive interdependence—specifically goal and resource interdependence—and autonomous learning ability, with resource interdependence showing a notably stronger correlation. To enhance the effectiveness of cooperative learning and foster greater autonomous learning, recommendations included refining evaluation mechanisms, emphasizing individual accountability, providing explicit strategy-oriented instruction, and offering constructive guidance on cooperative learning activities.

Moreover, Van Staden (2021) focused on a postgraduate class in distance education comprising 77 students, divided into 11 CBGs with 7 members each. These groups were tasked with aiding each other in assignment completion, motivating submission, and providing academic and personal support throughout the academic year. Findings indicated that CBGs effectively facilitated the formation of reciprocal relationships, fostering positive interdependence among members. Social network analysis

proved valuable in assessing this interdependence both at the group and class levels. However, the technique was discontinued prematurely following the departure of the author from the university. Further investigation is warranted to explore potential correlations between positive interdependence and academic achievement.

Positive interdependence, a key element in cooperative learning, plays a pivotal role in fostering successful collaboration among educators. According to Tamimy et al. (2023), positive interdependence occurs when teachers rely on each other to achieve common goals, which in turn promotes a sense of shared responsibility and commitment. In early childhood education, this mutual reliance among teachers enhances teamwork and leads to more effective outcomes for children. By leveraging each other's strengths and supporting areas of growth, educators contribute to a cohesive learning environment that benefits both themselves and the children they teach.

In the context of early childhood education, Gillies, Millis, and Davidson (2023) highlighted the importance of positive interdependence in cooperative learning modules. Their study, focusing on elementary education, demonstrated that emphasizing mutual reliance among group members leads to significant social and cognitive benefits. By creating interdependent learning activities that involve both cooperation and independent growth, educators can ensure a balanced and productive collaborative learning environment. However, they also noted the challenges that may arise, such as informational dependence, which could potentially hinder some students' learning outcomes. Effective module design should address these challenges to maximize the benefits of positive interdependence while minimizing its drawbacks.

Mulin and Hongbo (2020) examined the role of positive interdependence in a blended cooperative learning approach, specifically within a language learning context. Their research found that learners who participated in cooperative learning activities demonstrated significantly higher levels of positive interdependence, particularly in terms of resource and goal interdependence. This interdependence positively influenced autonomous learning abilities, though improvements in strategy-oriented abilities were less pronounced. The study suggested that incorporating a structured approach to evaluation and accountability could further enhance the cooperative learning experience and promote greater autonomy among participants.

### ***2.3.7. Individual and Group Accountability***

The foundation of effective teamwork lies in achieving a harmonious equilibrium between individual and group accountability. It is imperative for each team member to acknowledge their role in advancing collective goals. Herrity (2023) asserts that individual accountability plays a pivotal role in ensuring that each team member leverages their distinctive strengths. Furthermore, the concept of group accountability underscores the collective responsibility of the team for its overall performance and results, nurturing a culture of unity and collaboration.

The research paper by Sabol (2021) discusses preschool accountability systems, such as Quality Rating and Improvement Systems (QRIS), which aim to evaluate and enhance children's outcomes in early care and education settings. It emphasizes the importance of assessing and monitoring individual children's experiences to improve child policy effectively. The paper highlights the necessity for accountability systems to concentrate on enhancing children's outcomes in early childhood education, aligning with the concept of developing a cooperative learning module for daycare settings. Cooperative learning strategies can promote social skills, cognitive development, and overall learning outcomes in young children, making it a valuable approach for early childhood education (Sabol, 2021).

A study by Pérez et al. (2021) found that cooperative learning factors, especially individual responsibility, strongly predicted task-approach goals (TAG) and self-approach goals (SAG), but had less influence on other-approach goals (OAG). Furthermore, students in primary, secondary, and baccalaureate education who showed high levels of TAG and SAG tended to also exhibit greater individual responsibility. These results highlight the importance of fostering individual responsibility to promote adaptive learning behaviors among students in physical education settings.

On the other hand, Russell and Strom (2022) highlights the transformative power of embracing healthy accountability within organizational cultures. Initially grappling with burnout and minimal engagement, the group's adoption of collective responsibility and clear expectations marked a pivotal shift towards sustainability and growth. By valuing compassionate feedback and upholding shared leadership principles, they not only revitalized their operations but also deepened trust and cohesion among members. This journey underscores the importance of fostering a culture where accountability fosters learning, resilience, and authentic relationships, essential for navigating the complexities of organizational and societal change.

Individual and group accountability are essential elements for the success of cooperative learning, particularly in early childhood education settings. Herrity (2023) argues that individual accountability ensures that every team member takes ownership of their specific contributions to the collective goals of the group. This fosters a sense of responsibility and encourages members to maximize their strengths. On the other hand, group accountability emphasizes the collective responsibility of the entire team for their overall performance, creating a culture of unity and shared success. Both forms of accountability work together to promote effective collaboration and positive outcomes in educational settings.

Sabol (2021) extended the idea of accountability to early childhood education through the examination of Quality Rating and Improvement Systems (QRIS), which are designed to evaluate and enhance children's learning outcomes. These systems highlight the importance of individual accountability within classrooms, where both teachers and students are held accountable for achieving developmental milestones. By integrating such accountability practices into cooperative learning modules, daycare centers can improve social skills, cognitive development, and overall learning outcomes. The paper underscores how cooperative strategies in early childhood education not only support individual growth but also contribute to the collective progress of children in the learning environment.

Pérez et al. (2021) explored the impact of individual responsibility within cooperative learning contexts, revealing that factors such as individual responsibility strongly predict task-approach goals (TAG) and self-approach goals (SAG). Their findings suggest that students who take greater individual responsibility tend to exhibit more adaptive learning behaviors and higher levels of engagement. In early childhood education, fostering individual responsibility through cooperative learning activities can help young children develop self-regulation and accountability, which are foundational for later academic and social success.

Russell and Strom (2022) examined the role of accountability in organizational culture, particularly in educational settings. Their study showed that embracing collective responsibility and clear expectations transformed a group from struggling with disengagement to one thriving on trust and collaboration. This transformation underscores the importance of fostering both individual and group accountability to create an environment conducive to learning, resilience, and authentic

relationships, which is crucial in the context of cooperative learning in daycare and early childhood education.

### ***2.3.8. Interpersonal and Small Group Skills***

As per Gwenna (2020), the prosperity of collaborative endeavors significantly depends on the interpersonal and small group skills exhibited within the team. Interpersonal skills lay down the bedrock of a cohesive team dynamic, which encompass effective communication and the cultivation of relationships. Additionally, small group skills, such as active listening and conflict resolution, play a crucial role in steering through the intricacies of group interactions, facilitating seamless cooperation on the pursuit of common objectives.

Furthermore, Casquero-Modrego et al. (2022) investigated the impact of small group dynamics on active learning processes, specifically within the context of a Web Map Service (WMS) project. Geomatics Engineering students at a university in Catalonia engaged in team-based WMS creation, while counterparts at a university in Galicia pursued the same task individually. Throughout the course, three surveys were conducted to gather student feedback and evaluate their learning experiences based on project outcomes. The findings indicate that collaborative learning in small groups significantly enhances academic performance, boosts motivation, and fosters the acquisition of essential professional skills necessary for their careers.

Additionally, Suryadi (2020) indicated that small group discussions were not previously utilized for teaching speaking skills to eighth grade students at SMP Darul Muhajirin junior high school, a research initiative was undertaken. The study employed a quasi-experimental design, commencing with a homogeneity test to select experimental and control classes. The control class received typical teaching techniques and materials, while the experimental class engaged in small group discussions for speaking practice. Both groups underwent a post-test assessment, and subsequent analysis revealed a significant difference in speaking skill scores between the experimental class and the control class. Statistical analysis using SPSS confirmed the significance, underscoring the efficacy of small group discussions in enhancing students' speaking abilities. This research provides valuable insights for English teachers at SMPN Darul Muhajirin to integrate engaging materials, specifically small group discussions, into their teaching practices for speaking skills.

The success of cooperative learning efforts is largely dependent on the interpersonal and small group skills displayed by participants. As highlighted by Gwenna (2020), interpersonal skills are foundational to team dynamics. Effective communication, empathy, and relationship-building are vital for ensuring that all team members work cohesively towards shared objectives. Small group skills, such as active listening and conflict resolution, further enhance the effectiveness of teamwork. These skills allow individuals to navigate group interactions more smoothly, ensuring that collaboration remains productive and harmonious, even when disagreements arise.

Casquero-Modrego et al. (2022) explored the role of small group dynamics in active learning. Their study, which involved university students working in small teams to develop a Web Map Service (WMS), found that collaborative learning in small groups positively impacted academic performance, motivation, and the acquisition of professional skills. The students who engaged in small group work not only demonstrated higher learning outcomes but also reported an improved understanding of the material. These findings underscore the importance of fostering small group collaboration in educational settings, where interpersonal skills can be developed and refined, directly contributing to academic and personal growth.

Suryadi (2020) examined the impact of small group discussions on the speaking skills of eighth-grade students. His research demonstrated that students who participated in small group discussions performed significantly better in speaking assessments compared to those who received traditional instruction. This research highlighted the effectiveness of small group discussions in enhancing communication skills, offering practical implications for teaching practices. The study suggests that small group interactions provide an ideal environment for students to practice and develop essential interpersonal communication skills, making them more confident and proficient speakers.

These studies emphasize the critical role of interpersonal and small group skills in enhancing collaborative learning and educational outcomes. Developing these skills in early childhood education, particularly within cooperative learning modules, can foster stronger communication, collaboration, and problem-solving abilities among young children, laying the foundation for lifelong learning and effective teamwork.

### ***2.3.9. Face-to-Face Interaction***

Within the sphere of academic dialogue, the importance of face-to-face interaction retains its utmost significance. Gruber et al. (2022) affirm that face-to-face communication facilitates a more comprehensive exchange of information, enabling a nuanced understanding and interpretation. Going beyond the pragmatic aspects, in-person interaction plays a vital role in cultivating trust and a communal atmosphere within the team. This environment engenders a heightened sense of connection among team members, nurturing a collaborative spirit that ultimately amplifies the overall performance of the team.

Additionally, Nelson et al. (2021) investigated differences in children's performance across tasks related to verbal comprehension, fluid reasoning, visual spatial skills, working memory, attention and executive functioning, social perception, and numerical skills. Results indicated no significant differences between the face-to-face and online formats for five out of eight tasks. Additionally, the study explored the impact of parent involvement in children's performance during online assessments, finding no significant effect. Exploratory analyses suggested that the format of assessment did not vary significantly for children at risk, particularly those born preterm. These findings contribute to the expanding literature on the comparability of different data collection methods in developmental psychology research, especially in the context of online methodologies.

The amount of time adolescents spent engaging in digital communication through technologies like smartphones raised concerns that computer-mediated communication (CMC) might replace face-to-face (FtF) interactions and disrupt social development. Manago et al. (2020) conducted an online daily diary study with 169 adolescents in the United States, assessing their CMC and FtF interaction times, as well as the number of text messages exchanged with friends and parents. On the final day of the survey, adolescents reported on their emotional closeness with friends and parents, as well as their perception of closeness and autonomy balance with parents. Results indicated that CMC primarily stimulated social interactions rather than displacing them. Texting and CMC time with friends predicted closeness with friends even after accounting for FtF time, while texts with parents predicted closeness with parents similarly. Additionally, the study supported the hypothesis that CMC would enhance adolescent autonomy. Time spent in CMC with parents predicted greater volitional dependence (the combination of volition and closeness), whereas texts with friends predicted greater independent decision-making (volition combined with distance). The findings underscore how communication technologies are integrated into adolescents' relationships with both friends and

parents, suggesting that CMC can support adolescents in navigating their autonomy and emotional closeness with parents, and in constructing meaningful relationships with friends.

In academic settings, the role of face-to-face interaction is irreplaceable and crucial for fostering effective communication and collaboration. Gruber et al. (2022) emphasize that face-to-face communication allows for a more comprehensive and nuanced exchange of information. In-person interactions enable participants to pick up on nonverbal cues, such as body language and facial expressions, which can provide deeper insights into the discussion and promote mutual understanding. Beyond practical communication, these interactions also help to build trust and camaraderie among team members, creating an environment conducive to collaboration and improved team performance. This sense of connection can elevate the quality of cooperative efforts, particularly in educational contexts where teamwork is essential.

Nelson et al. (2021) explored the comparison between face-to-face and online interactions in children's performance across various cognitive and social tasks. Their research indicated that there were no significant differences between the two formats for most tasks, such as verbal comprehension, working memory, and executive functioning. This study suggests that face-to-face interaction is not always essential for task performance, particularly in controlled settings where both formats are well-structured. However, the findings also raise important questions about how digital platforms might offer comparable cognitive benefits, depending on the context, and whether these findings hold in more interactive or collaborative environments.

Manago et al. (2020) investigated how face-to-face and computer-mediated communication (CMC) influence social development in adolescents. Their study found that CMC, such as texting, primarily facilitated social interactions and did not replace face-to-face engagement. Specifically, the study revealed that time spent texting friends and parents positively correlated with feelings of closeness and emotional connection, indicating that CMC can enhance relationships rather than hinder them. Furthermore, the study demonstrated that adolescents who engaged in both CMC and face-to-face interactions displayed greater autonomy in their relationships, suggesting that CMC, when balanced with face-to-face communication, can foster independence and stronger social ties.

These studies underline the continued relevance of face-to-face interaction, especially in building trust, fostering collaboration, and enhancing communication within academic and social contexts. While

digital communication platforms can support relationships and collaboration, face-to-face interaction remains essential in strengthening the depth and quality of connections.

### ***2.3.10. Group Processing***

In a study conducted by Bricker et al. (2020), it was noted that collaboration within group processes was deemed a recommended practice in the domain of early intervention and early childhood special education (EI/ECSE), as stipulated by federal legislation for young children with disabilities. A thorough examination of relevant literature indicated that group processing entailed a sophisticated set of principles and practices essential for teams and programs to adopt to ensure effective and sustained change. Despite the recognized intricacies of group processing in EI/ECSE, only a limited number of systems frameworks had been proposed to organize the vital components of effective collaboration within group contexts. A framework was introduced that delineated the core components of group processing in EI/ECSE. This system further elucidated and put into operation the infrastructure and practices associated with these components, specifying the levels of action at which these practices operated.

According to Sutherland et al. (2019) group processing serves as a critical component in the implementation of cooperative learning (CL), functioning as the primary method for group members to reflect on behaviors that either hinder or facilitate group work. Engaging in group processing helps students grasp their personal and social development by acknowledging how they navigate conflicts, collaborate to overcome challenges, and gain new insights into their peers. Despite its pivotal role in CL, group processing is often overlooked due to time constraints, a mistaken belief that reflection occurs naturally during activities, or teachers lacking facilitation skills. Addressing these challenges requires a structured, student-centered approach. Drawing from adventure-based learning principles, this article suggests adopting the Sunday afternoon drive debrief model as a method to prioritize group processing within CL settings. While briefly outlining the Sunday afternoon drive model, the focus remains on specific pedagogical strategies employed during the implementation of CL.

Moreover, Hauer et al. (2021) noted that group decision-making within competency-based medical education (CBME), particularly through clinical competency committees (CCCs), is essential for evaluating learner progress effectively. Drawing from theories and practices developed since the 1930s, CCCs leverage group dynamics to enhance decision-making by promoting idea generation, error correction, collective memory, and comprehensive data utilization. Despite

these advantages, challenges such as groupthink and data synthesis issues require attention to optimize CCC functioning. Standardizing core committee functions and providing training for members and chairs can improve communication processes and ensure consistent outcomes across different specialties and institutions. Continued research into group decision-making in graduate medical education promises further insights into refining CCC practices and supporting learner advancement in CBME programs.

Group processing is a fundamental practice in many educational and professional settings, emphasizing the importance of collaboration, reflection, and mutual growth. Bricker et al. (2020) explored group processing in the context of early intervention and early childhood special education (EI/ECSE), where it plays a vital role in improving the effectiveness of programs for children with disabilities. The study highlighted that group processing involves a set of well-defined principles that guide teams toward sustained change. By implementing a structured framework, teams can better manage the complexities of collaboration, ensuring that all members are engaged in the process and contribute to achieving the collective goal. However, the study also pointed out that there are limited frameworks for organizing these group processing components, and more research is needed to standardize these practices across different EI/ECSE systems.

Sutherland et al. (2019) examined the importance of group processing in cooperative learning (CL), emphasizing that this practice enables students to reflect on their roles within the group and assess how their actions affect group dynamics. Group processing helps students become more aware of their personal and social development, enabling them to learn conflict resolution, cooperation, and empathy. Despite its significant benefits, the practice is often neglected due to various challenges such as time constraints, assumptions that reflection happens naturally, or lack of teacher facilitation skills. The authors suggest adopting the "Sunday afternoon drive" debrief model from adventure-based learning to address these challenges. This model promotes structured reflection and prioritizes group processing in CL settings, which can help students develop a deeper understanding of their collaboration and learning experiences.

In the field of competency-based medical education (CBME), group processing is crucial for evaluating the progress of medical learners through clinical competency committees (CCCs), as noted by Hauer et al. (2021). These committees use group decision-making to assess learners' clinical performance, utilizing collective knowledge and expertise to ensure comprehensive evaluations. While group decision-making enhances the learning process by fostering idea generation and collective memory, it can also face challenges such as groupthink or difficulties in synthesizing

complex data. The study suggests that to optimize group processing in CCCs, it is necessary to standardize committee functions and provide training for members to improve communication and decision-making efficiency. The ongoing refinement of group decision-making practices will enhance the effectiveness of CBME programs and support learners' educational development.

These studies underline the importance of group processing in various educational and professional contexts. By encouraging structured reflection, enhancing collaboration, and addressing potential challenges, group processing can significantly improve team dynamics, learning outcomes, and decision-making processes.

### ***2.3.11. Modules***

Junaedah (2020) signified that working outdoors presented greater challenges compared to indoor settings; individuals were often more physically active, contending with the elements and maintaining heightened alertness for potential hazards. The researchers employed a mixed methods approach with a convergent parallel design. The findings indicated that: 1) The initial depiction of prosocial behavior among young children in "Joy Kids" Kindergarten, "Mangasa" Subdistrict, "Tamalate" Makassar District, revealed that educators focused on enhancing and implementing play-based activities to prevent negative influences on children's prosocial behavior. 2) Two education experts and a practitioner developed and approved of an outdoor learning module based on traditional games following its assessment on utility, feasibility, and accuracy. 3) The produced outdoor learning module, rooted in traditional games, had a positive impact on the development of prosocial behavior in young children. The evaluators validated its use, affirming its practical value for application in the field without the need for revisions, and all the components previously presented were declared valid for use.

The module was designed to adhere to the ECCD Checklist by the Department of Social Welfare and Development (DSWD), in partnership with UNICEF. The module consists of twenty-four (24) learning activities focusing on cooperative learning. It offers support to both institutions and educators in facilitating the children's learning with fun and engaging activities that will help develop the seven (7) domains of the Early Childhood Care and Development (ECCD) Checklist.

Modules, particularly in educational settings, serve as crucial tools in guiding both teaching and learning processes. Junaedah (2020) highlighted the development of an outdoor learning module

aimed at fostering prosocial behavior in young children. The study found that outdoor environments, with their inherent challenges, provided opportunities for more physical activity and increased awareness of potential hazards. The module, centered around traditional games, was designed in alignment with the Early Childhood Care and Development (ECCD) Checklist, a guideline developed by the Department of Social Welfare and Development (DSWD) and UNICEF. It consisted of twenty-four activities promoting cooperative learning and aimed at developing the seven key domains of early childhood education. The evaluators found the module both feasible and effective, confirming its value in supporting educators in promoting prosocial behaviors in young learners.

In a similar context, a study by McGee and Belk (2019) explored the role of structured learning modules in enhancing the learning experiences of children in early childhood education. Their research emphasized the importance of integrating play-based learning into module design to address the varied developmental needs of children. The findings underscored that modules focused on social and emotional development could significantly improve children's interactions and behavior in group settings. McGee and Belk (2019) suggest that modules should be adaptable and culturally relevant to engage children meaningfully, making learning an enjoyable and enriching experience.

Flores and Babb (2021) investigated the application of digital learning modules in promoting collaboration and problem-solving skills among primary school students. Their research found that digital modules could be as effective as traditional classroom learning methods, provided that they are well-designed and incorporate interactive elements. The study demonstrated that students' engagement levels increased when they were given opportunities to collaborate using digital tools, thus promoting cooperative learning behaviors. These findings support the idea that educational modules, whether in physical or digital formats, play an essential role in shaping positive learning outcomes, especially in the development of key social skills.

The collective insights from these studies affirm that well-designed educational modules, regardless of their format, are effective tools for supporting children's development, both in terms of academic learning and social behaviors. By integrating cooperative learning principles and ensuring the modules' alignment with educational standards, such as the ECCD Checklist, they offer a structured yet flexible approach to enhancing the overall educational experience.

## 2.4 Statement of the Problem

This Study determined “Development and Acceptability of Early Childhood Module focusing on Cooperative Learning for Daycare in Antipolo.”

Specifically, it sought answers to the following questions:

1. What is the profile of the teacher-respondents in terms of;
  - 1.1 Sex;
  - 1.2 Civil Status;
  - 1.3 Highest Educational Attainment;
  - 1.4 Age; and
  - 1.5 Years in Service?
  
2. What is the level of acceptability of Early Childhood Cooperative Learning Module in terms of;
  - 2.1 Positive Interdependence;
  - 2.2 Individual and Group Accountability;
  - 2.3 Interpersonal and Small Group Skills;
  - 2.4 Face-to-Face Interaction; and
  - 2.5 Group Processing?
  
3. Is there a significant difference in the acceptability ratings among the five factors (Positive Interdependence, Individual and Group Activity, Interpersonal and Small Group Skills, Face to Face Interaction, and Group Processing)?

**(H<sub>0</sub>):** There is no significant difference in the acceptability ratings among the five factors (Positive Interdependence, Individual and Group Activity, Interpersonal and Small Group Skills, Face to Face Interaction, and Group Processing).

## 3.0 Research Method

This chapter covers the research design approach, research locale, the instrument used, data collection and analysis, population and sampling, and the ethical consideration of the study.

### **3.1 Research Design**

This study was conducted using a comparative research design. This required using a quantitative tool, specifically a survey questionnaire, to collect and analyze extensive data on teachers' perceptions of cooperative learning modules.

### **3.2 Research Locale**

The study was conducted in Antipolo City, with a focus on the Daycare Centers in both District 1 and District 2. The Daycare Centers, with their diverse teachers who have a wide range of experiences and perspectives, provided an ideal setting for gathering the necessary information to assess the level of acceptability of cooperative learning module.

### **3.3 Research Instrument**

#### ***Questionnaire***

The questionnaire contained closed-ended questions intended to gather quantitative data about the development and acceptability of cooperative learning modules. The researchers created fifty (50) statements, ten (10) for key elements. The questionnaire used Likert scale, and respondents have the option of responding as (1) Poorly Acceptable, (2) Fairly Acceptable, (3) Moderately Acceptable, or (4) Acceptable, (5) Highly Acceptable. The researchers ensured the privacy and security of the respondents' personal information.

### **3.4 Data Analysis**

Quantitative data analysis is a systematic approach to examining numerical information to extract meaningful insights and draw conclusions. In the context of survey data, employing descriptive statistics, such as mean, median, and standard deviation, plays a pivotal role in unraveling patterns, tendencies, and variations within the data set.

The F-value is a statistic used in analysis of variance (ANOVA) and regression analysis. In ANOVA, it compares the variation between groups with the variation within groups. In the context of this study, the F-value indicated whether there are statistically significant differences in the acceptability (or other measured outcomes) of the early childhood module across different groups or conditions (possibly different teaching methods or different daycare centers).

The P-value indicates the probability of observing a test statistic (such as the F-value) as extreme as, or more extreme than, the one observed, under the assumption that the null hypothesis is true. A lower P-value (typically  $\leq 0.05$ ) suggests stronger evidence against the null hypothesis, indicating that there is a statistically significant difference between groups or conditions being compared.

The F critical value is the value that an F-statistic must exceed for the results to be considered statistically significant at a specified significance level (often 0.05).

ANOVA was used to analyze whether there were significant differences in the acceptability of the early childhood module among different daycare centers in Antipolo. This statistical test helped to determine if variations in acceptability scores were likely due to actual differences between daycare centers (variation between groups) rather than random chance (variation within groups).

Cronbach's alpha was used as a statistic to measure the reliability and consistency of sets of scale or questionnaire items aimed at assessing a single construct or concept in the thesis. If surveys or scales were employed to evaluate factors such as the acceptability of the early childhood module or attitudes towards cooperative learning, Cronbach's alpha was calculated to verify that the items within these measures consistently reflected the same underlying concept. This ensured that the results obtained were dependable and reproducible, validating the reliability of the data collected for the study.

### **3.5 Data Collection**

#### ***Informed Consent***

Before gathering data, explicit consent was acquired from the teachers. The permission form delineated the objective of the study, the voluntary aspect of participation, and confidentiality of responses. The researchers sought endorsement letters from the Department of Social Welfare and Development and Early Childhood Care and Development Council to conduct the survey.

#### ***Administration of Questionnaire***

The questionnaires were distributed either electronically or in paper, based on the participants' preference. Teachers received guidance on how to fulfill the questionnaire, and the procedure was closely monitored to guarantee precision and thoroughness.

### 3.6 Population and Sampling

The target population included teachers of two-hundred-one (201) daycare centers in Antipolo district one (1) and two (2). Stratified random sampling was employed to select the sample, ensuring representation from different education settings, programs and experience levels.

### 3.7 Research Ethics

The researchers sought validation on survey questionnaires from master teachers in kindergarten. Respecting the paramount importance of participant privacy, the researchers affirm that the gathered information will be exclusively employed for the explicit purpose of this research. Stringent measures were adhered to, ensuring the confidentiality of all collected data, with access confined solely to the research team. Post the research's culmination, the researchers commit to the permanent deletion of personally identifiable information, retaining solely anonymized data for potential future research or academic pursuits.

### 4.0 Results

**Table 1.1 Demographic Profile**

<b>Demographics</b>	<b>Count</b>	<b>%</b>
<b>Gender</b>		
MALE	0	0 %
FEMALE	21	100 %
<b>TOTAL</b>	21	100 %
<b>Age</b>		
21-30	1	5 %
31-40	3	14 %
41-50	8	38 %
51-60	8	38 %
61-70	1	5 %
<b>TOTAL</b>	21	100%

<b>Civil Status</b>		
SINGLE	1	5 %
MARRIED	18	86 %
SEPARATED	0	0 %
WIDOWED	2	10 %
<b>TOTAL</b>	<b>21</b>	<b>100%</b>
<b>Highest Educational Attainment</b>		
UNDERGRADUATE	5	24 %
COLLEGE GRADUATE	16	76 %
MASTER'S DEGREE	0	0 %
DOCTORATE DEGREE	0	0 %
<b>TOTAL</b>	<b>21</b>	<b>100 %</b>
<b>Years in Service</b>		
0 - 5	6	29 %
6 - 10	3	14 %
11 - 15	0	0 %
16 -20	6	29 %
21 -25	2	10 %
26 - 30	1	5 %
31 AND ABOVE	3	14 %
<b>TOTAL</b>	<b>21</b>	<b>100 %</b>

The gender distribution of the respondents in this study was entirely female, with all 21 participants identifying as women (100%). This result indicates the gender composition typically seen in early childhood education settings, where female educators are predominant. The absence of male respondents (0%) reflects a significant gender imbalance in the sample, possibly due to societal norms and perceptions about gender roles in early childhood education. This imbalance could influence the perspectives and insights gathered from the survey, as they are exclusively from a female point of view.

The implications of this gender homogeneity must be considered when interpreting the study results, as male perspectives are absent. Ensuring gender diversity in future studies could provide a more balanced view of the acceptability and effectiveness of cooperative learning modules.

The lack of male respondents also raises questions about the potential barriers to male participation in early childhood education roles. These barriers could range from societal expectations to the working conditions and professional development opportunities available in the field. Addressing these barriers is crucial for promoting gender diversity in early childhood education. According to Chapman (2021), a more gender-diverse workforce could bring varied perspectives and approaches to teaching and learning, potentially enhancing the learning experiences for young children. Future research should aim to include male educators to understand their views and experiences with cooperative learning. This approach could lead to more inclusive and comprehensive educational strategies that benefit all learners.

The age distribution of the respondents shows a wide range, with participants' ages spanning from 21 to 70 years. Most respondents are aged between 41-50 years (38%) and 51-60 years (38%), indicating a significant presence of middle-aged and older educators. This age distribution suggests that many teachers have substantial professional experience, which could influence their perceptions of the cooperative learning modules. Younger teachers (21-30 years) and those in the oldest age bracket (61-70 years) each represented only 5% of the sample, showing a lower representation of these age groups.

The significant representation of middle-aged teachers might reflect a stable workforce with a long-term commitment to early childhood education. Their extensive experience can provide valuable insights into the practical application and acceptability of cooperative learning modules. However, the underrepresentation of younger and older teachers could mean that the views of these age groups are less prominently featured in the study's findings. In line with this, Geeraerts et al. (2019) revealed that it is essential to consider these age-related dynamics when interpreting the results, as age and experience can impact teachers' openness to new teaching strategies and their perceptions of their effectiveness. Future research should aim for a more balanced age distribution to capture a broader range of experiences and viewpoints.

Most of the respondents are married (86%), while a small proportion are single (5%) or widowed (10%). There were no separate respondents in the sample. This distribution indicates that most educators have familial responsibilities, which could influence their views on the feasibility and acceptability of cooperative learning modules. Married respondents may face different time constraints and stress levels than their single or widowed counterparts, potentially affecting their engagement with new teaching methodologies.

Understanding the civil status of the respondents provides context for interpreting their responses to the cooperative learning modules. Married teachers might have a support system that could positively impact their professional lives, or conversely, they might face more significant challenges balancing work and family duties. The presence of widowed teachers also highlights the diversity of personal backgrounds within the workforce. In line with this, Nwosu et al. (2020) noted that future studies should delve deeper into how civil status impacts teachers' professional experiences and receptivity to innovative teaching approaches. This understanding can help design support systems and professional development programs that cater to the diverse needs of educators.

The educational attainment of the respondents shows that a majority (76%) are college graduates, with 24% having undergraduate degrees. None of the respondents hold a master's or doctorate degree. This educational background suggests that while the teachers have the necessary qualifications to teach, there is a lack of advanced degrees among the sample. This could influence their familiarity with advanced educational theories and practices, including cooperative learning methodologies.

The absence of respondents with higher degrees might indicate limited opportunities for advanced professional development in the region. Enhancing access to further education could improve the educators' ability to implement and appreciate sophisticated teaching strategies like cooperative learning. As said by Li (2022), providing opportunities for advanced education can lead to a more knowledgeable and skilled workforce. The current educational qualifications of the respondents provide a baseline understanding of the general knowledge and skills present in the daycare centers. Future initiatives could focus on encouraging and supporting teachers to pursue higher education, which could, in turn, enrich the teaching environment and improve the implementation of innovative educational modules.

The respondents' years of service vary widely, with significant clusters at 0-5 years (29%), 16-20 years (29%), and 31 years and above (14%). This distribution indicates a mix of novice and highly experienced educators, which can provide a broad perspective on the acceptability and effectiveness of cooperative learning modules. Teachers with 0-5 years of experience might bring fresh ideas and a willingness to adopt new methodologies, while those with 16-20 years and 31 years and above offer deep practical insights based on extensive experience.

The diversity in years of service among respondents highlights the different stages of professional growth present in the sample. Experienced teachers can provide mentorship and support to less experienced colleagues, fostering a collaborative learning environment among the staff. According to Zhang et al. (2019), leveraging the experience of veteran teachers can significantly enhance the professional development of newer educators. The varying levels of experience also suggest that cooperative learning modules must be versatile and adaptable to meet the needs of both new and seasoned

educators. Future training programs should consider these differences in experience levels to maximize the effectiveness of cooperative learning strategies across the board.

**Table 2.1 Positive Interdependence**

<b>POSITIVE INTERDEPENDENCE</b>		<b>AVE</b>	<b>EQV</b>
<b>The activities in this cooperative learning module will...</b>			
1	Encourage collaboration among learners.	4.9	Highly Acceptable
2	Foster a sense of unity among learners.	4.81	Highly Acceptable
3	help learners recognize the importance of collaborative effort in learning and play.	4.81	Highly Acceptable
4	Develop a shared responsibility for the success of their group activities.	4.76	Highly Acceptable
5	Cultivate a positive learning environment that encourages collaboration among learners.	4.95	Highly Acceptable
6	Provide learners an opportunity to experience a sense of unity through group activities	4.76	Highly Acceptable
7	Create a supportive and inclusive environment.	4.76	Highly Acceptable
8	Encourage learners to celebrate each other's achievements.	4.76	Highly Acceptable
9	Provide opportunities for learners to depend on and trust their peers.	4.81	Highly Acceptable
10	Help learners express a sense of accomplishment when a group succeeds in collaboration.	4.86	Highly Acceptable
<b>AVERAGE</b>		<b>4.82</b>	<b>Highly Acceptable</b>
<b>STANDARD DEVIATION</b>		<b>0.07</b>	<b>Highly Acceptable</b>

The positive interdependence component of the cooperative learning module received highly acceptable ratings across all items, with an average score of 4.82. Activities encouraging collaboration among learners scored 4.9, indicating a strong approval for fostering teamwork. The sense of unity and collaborative effort were also rated highly, with scores of 4.81 each. These results suggest that the module effectively promotes a sense of shared responsibility and teamwork among learners, which are critical aspects of cooperative learning.

High ratings for developing a shared responsibility (4.76) and creating a supportive environment (4.76) further emphasize the module's success in cultivating a collaborative learning atmosphere. Encouraging learners to celebrate each other's achievements and providing opportunities for mutual trust were also well-received, with scores of 4.76 and 4.81, respectively. These findings underscore the

importance of designing activities that not only teach academic content but also foster social skills and interdependence. The high acceptability of these activities implies that teachers find them effective in promoting cooperative behaviors, which can lead to improved learning outcomes.

The activities designed to help learners express a sense of accomplishment when succeeding in group tasks also scored highly (4.86). This indicates that the module's emphasis on group success and individual contributions is well-aligned with the principles of cooperative learning. The overall standard deviation of 0.07 reflects a high level of agreement among respondents regarding the acceptability of these activities. This consistency suggests that the module's design is robust and effectively meets the needs of diverse learners.

The implications of these findings highlight the need for early childhood education programs to integrate cooperative learning strategies that build positive interdependence. By fostering collaboration and a sense of shared responsibility, such modules can enhance both academic and social development in young learners. The high ratings across various aspects of positive interdependence indicate that these strategies are well-received by educators and can be effectively implemented in daycare settings. As mentioned by Tamimy et al. (2023), positive interdependence is a critical factor in successful cooperative work, and when educators collaborate seamlessly, drawing on each other's strengths and supporting areas of growth, the collaborative efforts result in more effective teamwork and improved outcomes for the children

**Table 2.2 Individual and Group Accountability**

<b>INDIVIDUAL AND GROUP ACCOUNTABILITY</b>		<b>AVE</b>	<b>EQV</b>
The activities that I will implement in the cooperative learning module will encourage learners			
1	Be responsible for their learning outcomes.	4.90	Highly Acceptable
2	Take ownership of their individual tasks.	4.76	Highly Acceptable
3	Be accountable for completing their assigned roles within the group.	4.86	Highly Acceptable
4	Emphasize the importance of each of them contributing to the group's success.	4.86	Highly Acceptable
5	Understand that their actions will affect the overall performance and dynamics of the group	4.86	Highly Acceptable
6	Promote a sense of responsibility for both individual growth and the group's achievements	4.90	Highly Acceptable
7	Feel a sense of duty to contribute actively to the collaborative learning process during our group activities.	4.81	Highly Acceptable
8	Understand that every learner's effort is essential for the group to succeed.	4.90	Highly Acceptable
9	Be accountable for collaborating effectively with	4.81	Highly Acceptable

	their peers during group activities.		
10	Balance between individual growth and the collective progress of the group.	4.76	Highly Acceptable
	<b>AVERAGE</b>	<b>4.84</b>	<b>Highly Acceptable</b>
	<b>STANDARD DEVIATION</b>	<b>0.06</b>	<b>Highly Acceptable</b>

The cooperative learning module's emphasis on individual and group accountability received an average rating of 4.84, indicating a high level of acceptability. Activities encouraging learners to be responsible for their learning outcomes scored 4.90, showing strong support for fostering accountability. Emphasizing the importance of contributing to group success also received high ratings (4.86), reflecting the module's effectiveness in promoting both individual and collective responsibility.

Teachers rated the promotion of a sense of responsibility for both individual growth and group achievements highly (4.90), suggesting that the module successfully balances personal and collective accountability. Activities that help learners understand the impact of their actions on group dynamics also scored well (4.86). These high ratings indicate that the module effectively instills a sense of duty and accountability among learners, which is essential for successful cooperative learning.

Encouraging learners to take ownership of their tasks and be accountable for their roles within the group also received favorable ratings (4.76 and 4.86, respectively). This highlights the module's success in promoting personal responsibility within a collaborative framework. The standard deviation of 0.06 indicates a high level of agreement among respondents, suggesting that these activities are consistently viewed as effective across different educators.

The implications of these findings are significant for early childhood education. By incorporating activities that foster both individual and group accountability, the module helps develop essential life skills such as responsibility, teamwork, and self-regulation. Affirming this, Herrity (2023) asserts that individual accountability is pivotal in ensuring that each team member leverages their distinctive strengths. The high acceptability ratings suggest that educators find these strategies effective and beneficial for young learners, supporting their overall development.

**Table 2.3 Interpersonal and Small Group Skills**

INTERPERSONAL AND SMALL GROUP SKILLS		AVE	EQV
I will ensure that the cooperative learning module will help learners to...			
1	Effectively communicate and express their ideas during group discussions.	5.0	Highly Acceptable
2	Promote active listening skills among children through group discussion.	5.0	Highly Acceptable

3	Demonstrate the ability to take turns and share responsibilities during group activities.	4.86	Highly Acceptable
4	Enhance their ability to cooperate with their peers.	4.86	Highly Acceptable
5	Effectively resolve conflicts that may arise within their small groups.	4.76	Highly Acceptable
6	Provide constructive feedback to their peers in a positive and supportive manner.	4.90	Highly Acceptable
7	Exhibit strong empathy and understanding toward their peers in group interactions.	4.86	Highly Acceptable
8	Develop leadership skills among children within small group contexts	4.95	Highly Acceptable
9	Demonstrate flexibility in adapting to different roles within their small group activities.	4.86	Highly Acceptable
10	Contribute to the overall positive atmosphere of cooperation and mutual support during their small group activities.	4.76	Highly Acceptable
	<b>AVERAGE</b>	<b>4.88</b>	<b>Highly Acceptable</b>
	<b>STANDARD DEVIATION</b>	<b>0.08</b>	<b>Highly Acceptable</b>

The module's activities to develop interpersonal and small group skills were highly rated, with an average score of 4.88. Activities promoting effective communication and active listening among learners scored a perfect 5.0, indicating strong approval from educators. This suggests that the module enhances essential social skills critical for cooperative learning.

Activities that foster the ability to take turns, share responsibilities, and resolve small-group conflicts also received high ratings (4.86 and 4.76, respectively). These results indicate that the module effectively supports the development of interpersonal skills necessary for effective collaboration. Teachers' positive reception of these activities underscores the importance of integrating social skills training into early childhood education.

Providing constructive feedback and exhibiting empathy were also rated highly (4.90 and 4.86, respectively). These skills are crucial for maintaining a positive and supportive group dynamic, and their high ratings suggest that the module effectively fosters these abilities among learners. The standard deviation of 0.08 reflects a slight variation in responses, but overall, the activities were consistently viewed as highly acceptable.

The implications of these findings highlight the need to focus on interpersonal and small group skills in early childhood education. As noted by Gwenna (2020), interpersonal skills lay down the bedrock of a cohesive team dynamic, which encompasses effective communication and the cultivation of relationships. By developing these skills, the module prepares young learners for future collaborative endeavors, both in academic settings and beyond. The high ratings suggest that these activities are effective and beneficial, supporting the overall goal of fostering cooperative learning.

**Table 2.4 Face-to-Face Interaction**

FACE-TO-FACE INTERACTION		AVE	EQV
The activities in the cooperative learning module will foster...			
1	Face-to-face communication during collaborative activities.	4.95	Highly Acceptable
2	Effective face-to-face interaction skills when working with their peers.	4.90	Highly Acceptable
3	The importance of direct communication among learners.	4.90	Highly Acceptable
4	Face-to-face discussions are integral to the cooperative learning experiences provided in the module at our daycare.	5.0	Highly Acceptable
5	Strong interpersonal connections through face-to-face interactions in our daycare.	4.86	Highly Acceptable
6	Learners' ability to directly express themselves to their peers during collaborative tasks.	4.81	Highly Acceptable
7	A learning environment where face-to-face communication is a central aspect of our daily activities in daycare	4.86	Highly Acceptable
8	Face-to-face discussions are vibrant and interactive learning atmosphere.	4.90	Highly Acceptable
9	Positive face-to-face interactions among children attending our daycare.	4.90	Highly Acceptable
10	A focus on face-to-face a sense of community and mutual understanding among learners in our daycare.	4.90	Highly Acceptable
<b>AVERAGE</b>		<b>4.90</b>	<b>Highly Acceptable</b>
<b>STANDARD DEVIATION</b>		<b>0.05</b>	<b>Highly Acceptable</b>

The face-to-face interaction component of the cooperative learning module received an average rating of 4.90, indicating high acceptability. Activities promoting direct communication during collaborative tasks scored a perfect 5.0, suggesting strong approval from educators. This reflects the importance of face-to-face interactions in fostering effective communication and collaboration among learners.

Both encouraging effective face-to-face interaction skills and emphasizing the importance of direct communication scored 4.90. These high ratings indicate that the module successfully promotes essential communication skills, which are crucial for cooperative learning. The positive reception of these activities suggests that educators value direct interactions as a key component of effective learning experiences.

Activities that foster strong interpersonal connections and a vibrant, interactive learning atmosphere also received high ratings (4.86 and 4.90, respectively). These results highlight the module's

effectiveness in creating a supportive and engaging learning environment. The standard deviation of 0.05 indicates a high level of agreement among respondents, suggesting consistent views on the acceptability of these activities.

The implications of these findings emphasize the importance of face-to-face interactions in early childhood education. Gruber et al. (2022) affirm that face-to-face communication facilitates a more comprehensive exchange of information, enabling a nuanced understanding and interpretation. Through fostering direct communication and interpersonal connections, the module enhances both social and academic development. The high acceptability ratings indicate that these strategies are well-received by educators and can be effectively implemented in daycare settings to promote cooperative learning.

**Table 2.5 Group Processing**

GROUP PROCESSING		AVE	EQV
The group processing sessions in our cooperative learning module will serve to enhance...			
1	Collaborative skills that promote self-reflection, focusing on both successes and areas for improvement.	4.76	Highly Acceptable
2	Open communication among learners about their collaborative experiences in group activities.	4.86	Highly Acceptable
3	Learners' ability to actively evaluate their group's performance in upcoming daycare activities.	4.81	Highly Acceptable
4	Collaborative skills highlight group processing as an essential step in cooperative learning.	4.86	Highly Acceptable
5	Collaboration fosters a supportive environment where learners can share their thoughts and feelings about group tasks.	4.76	Highly Acceptable
6	Learners' ability to provide constructive feedback to their peers.	4.76	Highly Acceptable
7	Collaboration by providing opportunities for learners to set goals and strategize for improvement. group dynamics.	4.76	Highly Acceptable
8	Learners' active engagement in self-assessment and reflection on their contributions to the group.	4.81	Highly Acceptable
9	Collaboration fosters a shared sense of responsibility for the group's success.	4.86	Highly Acceptable
10	Positive and inclusive environment in collaborative settings.	4.90	Highly Acceptable
<b>AVERAGE</b>		<b>4.81</b>	<b>Highly Acceptable</b>
<b>STANDARD DEVIATION</b>		<b>0.05</b>	<b>Highly Acceptable</b>

**Table 2.6 Summary of the Level of Acceptability**

LEVEL OF ACCEPTABILITY		AVE	EQV
1	Positive Interdependence	4.82	Highly Acceptable
2	Individual and Group Accountability	4.84	Highly Acceptable
3	Interpersonal and Small Group Skills	4.88	Highly Acceptable
4	Face-to-Face Interaction	4.90	Highly Acceptable
5	Group Processing	4.81	Highly Acceptable

The group processing component of the cooperative learning module received an average rating of 4.81, indicating high acceptability. Activities promoting self-reflection and open communication among learners about their collaborative experiences scored 4.76 and 4.86, respectively. These ratings suggest that the module effectively encourages reflective practices and open dialogue, which are essential for effective group processing.

Promoting learners' ability to actively evaluate their group's performance and provide constructive feedback received high ratings (4.81 and 4.76, respectively). These results indicate that the module supports critical reflection and feedback, which are crucial for continuous improvement in cooperative learning settings. The positive reception of these activities suggests that educators find them valuable for fostering a reflective and growth-oriented learning environment.

Activities that foster a shared sense of responsibility for the group's success and create a positive and inclusive environment also received high ratings (4.86 and 4.90, respectively). These ratings reflect the module's success in promoting a cooperative and supportive group dynamic. The standard deviation of 0.05 indicates a high level of agreement among respondents, suggesting consistent views on the acceptability of these activities.

The implications of these findings highlight the importance of group processing in cooperative learning. By fostering self-reflection, constructive feedback, and a shared sense of responsibility, the module enhances the effectiveness of cooperative learning strategies. Reflecting this, Bricker et al. (2020) noted that collaboration within group processes was deemed a recommended practice in the domain of early intervention and early childhood special education (EI/ECSE), as stipulated by federal legislation for young children with disabilities. The high acceptability ratings suggest that these practices are well-received by educators and can be effectively implemented to support continuous improvement and collaboration among young learners.

**TABLE 3. Significance Difference in Acceptability Ratings Among Five Factors.**

Source of Variation	SS	df	MS	F	p-value	F crit
Between Groups	680.11	5	136.02	20.98	5.05	2.29
Within Groups	777.95	120	6.48			
TOTAL	1458.06	125				

The ANOVA test results show a significant difference in the acceptability ratings among the five factors evaluated in the study, with an F-value of 20.98 and a p-value of 5. The F-value is much larger than the critical F-value of 2.29, indicating that the observed differences among group means are statistically significant. This suggests that the respondents perceive the different aspects of cooperative learning differently regarding their acceptability.

The low p-value (essentially zero) indicates a very low probability that the observed differences occurred by chance alone. This strengthens the conclusion that there are genuine differences in how the various factors of cooperative learning are received by educators. According to Dietrichson et al. (2021), statistically significant findings underscore the importance of targeted interventions in educational strategies. The considerable variation in acceptability ratings suggests that some module components are more favorably viewed than others.

To further understand which specific factors differ, a post hoc test, such as Tukey's HSD, could be performed. However, based on the ANOVA results alone, the differences among the means of the five groups are significant. This finding highlights the need to investigate each factor's specific strengths and weaknesses to refine and improve the cooperative learning module.

The implications of these findings are crucial for developing and implementing cooperative learning strategies. Understanding the differences in acceptability ratings can guide educators and curriculum developers in focusing on the most effective components while addressing the less favorable aspects. In line with this, Yurkofsky et al. (2020) emphasize the importance of continuous evaluation and refinement to improve educational programs. By continuously evaluating and refining the module based on these insights, early childhood education programs can enhance their effectiveness and better meet the needs of both teachers and learners.

## **5.0 Discussion**

### **5.1 Summary of Findings**

#### **5.1.1 Profile of Teacher-Respondents**

The profile of teacher-respondents was gathered to understand the demographic distribution within the sample. All respondents were female, indicating a significant gender imbalance with no male representation. This finding reflects the typical gender distribution in early childhood education settings, where female educators dominate. The age distribution showed a wide range, with most respondents being middle-aged. This suggests that many respondents have substantial professional experience. Younger teachers and those in the oldest age bracket were the least represented, showing a lower representation of these age groups.

Regarding civil status, most respondents were married, with a few being widowed or single. The educational attainment revealed that most were college graduates, with the rest having undergraduate degrees. In terms of years in service, there was a significant representation of both novice and highly experienced educators. This diverse range of experience levels highlights the varying perspectives that contributed to the study. These demographic insights provide a comprehensive understanding of the teacher-respondents' background, which is crucial for interpreting their perceptions of the cooperative learning module.

#### **5.1.2 Level of Acceptability of the Early Childhood Cooperative Learning Module**

The acceptability of the cooperative learning module was evaluated across five key factors: positive interdependence, individual and group accountability, interpersonal and small group skills, face-to-face interaction, and group processing. Positive interdependence was highly acceptable, indicating that activities promoting collaboration and a sense of unity were well-received. Similarly, individual and group accountability received strong support, reflecting that activities fostering responsibility and accountability among learners were effective. These high ratings suggest that the module promotes teamwork and shared responsibility effectively.

Interpersonal and small group skills were highly rated, with activities enhancing communication and empathy particularly well-received. Face-to-face interaction was also highly acceptable, highlighting the importance of direct communication in cooperative learning. Group processing was valued, emphasizing the importance of self-reflection and constructive feedback in group activities. The

consistently high ratings across these factors indicate that the module is well-designed to meet the educational needs of young learners, fostering both academic and social development.

### **5.1.3 Significant Difference in Acceptability Ratings Among the Five Factors**

The ANOVA test revealed a statistically significant difference in the acceptability ratings among the five factors evaluated in the study. The results indicate that the observed differences among group means are not due to chance, suggesting that the respondents perceive the various components of the cooperative learning module differently. The findings underscore the need to analyze further which factors contributed to these differences to enhance the module's effectiveness.

The significant variation in acceptability ratings highlights the diverse perceptions of the module's components. Some aspects of the module, such as face-to-face interaction and interpersonal skills, received higher ratings, indicating strong approval. Conversely, other factors, while still rated highly, showed slightly lower scores, suggesting areas for improvement. These insights are crucial for refining the cooperative learning module to better address educators' needs and preferences. By enhancing the less favorably viewed components, the module can be optimized to ensure a more balanced and effective approach to cooperative learning.

## **5.2 Conclusion**

The study on the development and acceptability of an early childhood cooperative learning module for daycare centers in Antipolo provides significant insights into teachers' perceptions. The findings indicate a high level of acceptability across various dimensions of cooperative learning, suggesting that the module is well-designed and meets the educational needs of young learners. The demographic profile of the respondents highlights a diverse range of experience levels and backgrounds, which contributes to a comprehensive understanding of the module's effectiveness.

The consistently high ratings for positive interdependence, individual and group accountability, interpersonal and small group skills, face-to-face interaction, and group processing demonstrate the module's success in fostering essential social and academic skills. The statistical analysis confirmed significant differences in the acceptability ratings among these factors, emphasizing the need to address specific areas for improvement. These findings are crucial for refining the module to ensure it effectively supports cooperative learning in early childhood education.

The gender imbalance in the respondent profile, with all participants being female, highlights a potential area for further exploration. Including male educators in future studies could provide a more

balanced perspective on the module's acceptability and effectiveness. Additionally, the varied years of service among respondents suggest that the module should be adaptable to meet the needs of both novice and experienced teachers.

Overall, the study underscores the importance of integrating cooperative learning strategies into early childhood education. The module's high acceptability ratings across different dimensions indicate its potential to enhance teaching practices and learning outcomes. By continuously evaluating and refining the module based on educator feedback, early childhood programs can foster a more cooperative and effective learning environment for young children.

### **5.3 Recommendations**

In line with the discussion and conclusion, the following were the suggested recommendations:

#### **1. For the teachers**

Teachers are encouraged to incorporate the student learning module into their teaching and focus on its core principles, including positive interdependence and individual accountability with group rewards or refinement mechanisms used in a wide variety of activities that promote collaboration among learners. Furthermore, depending on the quality, the researchers recommend planning professional development workshops to train teachers in how and when to use these strategies and promote a climate where learning is collaborative. In addition, necessary feedback from instructors should be implied about how a module is doing, as it will drive the module's further development and ability to adapt to different classroom conditions or student groups.

#### **2. For the students**

Students need to be personally involved in cooperative learning, with clear explanations regarding the purpose and advantages of working together. Thus, it is needed for them to have a developed student guide that will help them learn the significance of teamwork, having communication and accountability with respect to group activities. This guide can also have study tips that will help them understand the different best practices that will help them enhance these skills. Further, there should be exercises to help the students own their learning process by providing easier values of participation and cooperation.

### 3. **For the daycares**

It is advisable for daycare centers to implement the cooperative learning model as part of their curriculum so that a child learns social and academic skills from an early age. As such, administrators should provide staff development for all faculty about cooperative learning concepts and practices. Further, regular evaluations are also needed to measure the impact on children's development, which will help make necessary modifications, if any and refine these areas for better improvement. And lastly, there should be capacity-building workshops/information sessions that will help the parents be engaged in the process. By conducting workshops and informational sessions, the daycare can make the module effective because these principles will be sustained at home as well.

### 4. **For the future researchers**

Future researchers need to look into the effects that collaborative education modules have in a wider range of contexts. This could involve more male teachers so that it can be comprehended well enough. Further, longitudinal studies are needed that might yield the benefits of cooperative learning at an early childhood level over time. This will require a lot of research studies that should be concentrated on making changes within parts that are considered unfavorable within the same module while at the same time developing new ways for greater effectiveness.

By addressing these recommendations, the researchers believe that the cooperative learning module will not only remain effective but also continue to develop and foster an enriching educational environment for young learners

**Appendix A**  
Survey Questionnaire

	<p><b>OUR LADY OF FATIMA UNIVERSITY</b> Antipolo Campus, Antipolo City, Rizal <b>COLLEGE OF EDUCATION</b> Early Childhood Education</p>	
<p><b>THE ACCEPTABILITY OF EARLY CHILDHOOD MODULE IN DAYCARE CENTERS</b></p> <p>The researchers are students from OUR LADY OF FATIMA UNIVERSITY under the program 'BACHELOR OF EARLY CHILDHOOD EDUCATION'. In partial fulfillment of the requirements un the course RESEARCH IN EDUCATION 1.</p> <p>Hereby conducting research about the acceptability of the Early Childhood Module in Daycare Centers. "DEVELOPMENT AND ACCEPTABILITY OF EARLY CHILDHOOD MODULE FOCUSING ON COOPERATIVE LEARNING FOR DAYCARE IN ANTIPOLO".</p> <p>Your participation is highly appreciated. Rest assured that all information that you will give will be held STRICTLY CONFIDENTIAL. Thank you for your time and cooperation in answering the items of this questionnaire.</p> <p>Data Privacy Act of 2012</p> <p><i>"It is the policy of the State to protect the fundamental human right of privacy, of communication while ensuring free flow of information to promote innovation and growth. The State recognizes the vital role of information and communications technology in nation-building and its inherent obligation to ensure that personal information in information and communications systems in the government."</i></p>	<p>and in the private sector are secured and protected."</p> <p>The Researchers:</p> <p>Abaño, Ivy Jane A. Labarcon, Divine Grace P. Samson, Hannah Sophia D.R. Valdulla, Ana Matea M.</p> <p>BECE 3-Y-1</p> <p>Good day! Thank you for being part of this important survey. We will be gaining thoughts and opinions coming from our respondents about the researchers' study entitled "Development and Acceptability of Early Childhood Module focusing on cooperative Learning for Daycare in Antipolo". Rest assured that all answers will be kept confidential.</p>	<p>Name (Optional): _____</p> <p>Date: _____</p> <p>School: _____</p> <p>Sex:</p> <p style="padding-left: 40px;"><input type="checkbox"/> Male</p> <p style="padding-left: 40px;"><input type="checkbox"/> Female</p>

Continued

	<b>OUR LADY OF FATIMA UNIVERSITY</b> Antipolo Campus, Antipolo City, Rizal <b>COLLEGE OF EDUCATION</b> Early Childhood Education	
<p>Age:</p>		
<p><input type="checkbox"/> 21-30 years old</p>		
<p><input type="checkbox"/> 31-40 years old</p>		
<p><input type="checkbox"/> 41-50 years old</p>		
<p><input type="checkbox"/> 51-60 years old</p>		
<p><input type="checkbox"/> 61 years old and above</p>		
<p>Civil Status:</p>		
<p><input type="checkbox"/> Single</p>		
<p><input type="checkbox"/> Married</p>		
<p><input type="checkbox"/> Separated</p>		
<p><input type="checkbox"/> Widowed</p>		
<p>Highest Educational Attainment:</p>		
<p><input type="checkbox"/> Undergraduate</p>		
<p><input type="checkbox"/> Bachelor's degree</p>		
<p><input type="checkbox"/> BS with MA/MS units</p>		
<p><input type="checkbox"/> MA/MS Degree</p>		
<p><input type="checkbox"/> Ma/MS Degree with Ph. D/ Ed. D units</p>		
<p><input type="checkbox"/> Ph. D/Ed. D units</p>		
<p>Years in Service:</p>		
<p><input type="checkbox"/> 5 years below</p>		
<p><input type="checkbox"/> 6-10 years</p>		
<p><input type="checkbox"/> 10-15 years</p>		
<p><input type="checkbox"/> 16-20 years</p>		
<p><input type="checkbox"/> 21-25 years</p>		
<p><input type="checkbox"/> 26-30 years</p>		
<p><input type="checkbox"/> 31 and above</p>		

## Continued



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Direction: Kindly rate each of the items below by checking (✓) the degrees of acceptability. Below is the option with its corresponding equivalents.

OPTION	DESCRIPTION
5	Highly Acceptable
4	Acceptable
3	Moderately Acceptable
2	Fairly Acceptable
1	Poorly Acceptable

A. POSITIVE INTERDEPENDENCE	5	4	3	2	1
<b>The activities in this cooperative learning module will...</b>					
1. encourage collaboration among learners.					
2. foster a sense of unity among learners.					
3. help learners recognize the importance of collaborative effort in learning and play.					
4. develop a shared responsibility for the success of their group activities.					
5. cultivate a positive learning environment that encourages collaboration among learners.					
6. provide learners an opportunity to experience a sense of unity through group activities.					
7. create a supportive and inclusive environment.					
8. encourage learners to celebrate each other's achievement.					
9. provide opportunities for learners to depend on and trust their peers.					

Continued



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	5	4	3	2	1
10. help learners express a sense of accomplishment when their group succeeds in collaboration.					
<b>B. INDIVIDUAL AND GROUP ACCOUNTABILITY</b>					
<b>The activities that I will implement in the cooperative learning module will encourage learners to...</b>					
1. be responsible for their own learning outcomes.					
2. take ownership of their individual tasks.					
3. be accountable for completing their assigned roles within the group.					
4. emphasize the importance of each of them contributing to the group's success.					
5. understand that their actions will affect the overall performance and dynamics of the group.					
6. promote a sense of responsibility for both individual growth and the group's achievements.					
7. feel a sense of duty to contribute actively to the collaborative learning process during our group activities.					
8. understand that every learner's effort is essential for the group to succeed.					
9. be accountable for collaborating effectively with their peers during group activities.					
10. balance between individual growth and the collective progress of the group.					

Continued

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<b>C. INTERPERSONAL AND SMALL GROUP SKILLS</b>		<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>I will ensure that the cooperative learning module will help learners to...</b>						
1.	effectively communicate and express their ideas during group discussion.					
2.	promote active listening skills among children through group discussion.					
3.	demonstrate the ability to take turns and share responsibilities during group activities.					
4.	enhance their ability to cooperate with their peers.					
5.	effectively resolve conflicts that may arise within their small groups.					
6.	provide constructive feedback to their peers in a positive and supportive manner.					
7.	exhibit a strong sense of empathy and understanding toward their peers in group interactions.					
8.	develop leadership skills among children within small group contexts.					
9.	demonstrate flexibility in adapting to different roles within their small groups activities.					
10.	contribute to the overall positive atmosphere of cooperation and mutual support during their small group activities.					
<b>D. FACE TO FACE INTERACTION</b>						

Continued

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<b>The activities in the cooperative learning module will foster...</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
1. face-to-face communication during collaborative activities.					
2. effective face-to-face interaction skills when working with their peers.					
3. the importance of direct communication among learners.					
4. face-to-face discussions are integral to the cooperative learning experiences provided in the module at our daycare.					
5. strong interpersonal connections through face-to-face interactions in our daycare.					
6. learners' ability to directly express themselves to their peers during collaborative tasks.					
7. a learning environment where face-to-face communication is a central aspect of our daily activities in the daycare.					
8. face-to-face discussions that are vibrant and interactive learning atmosphere.					
9. positive face-to-face interactions among children attending our daycare.					
10. a focus on face-to-face a sense of community and mutual understanding among learners in our daycare.					

Continued



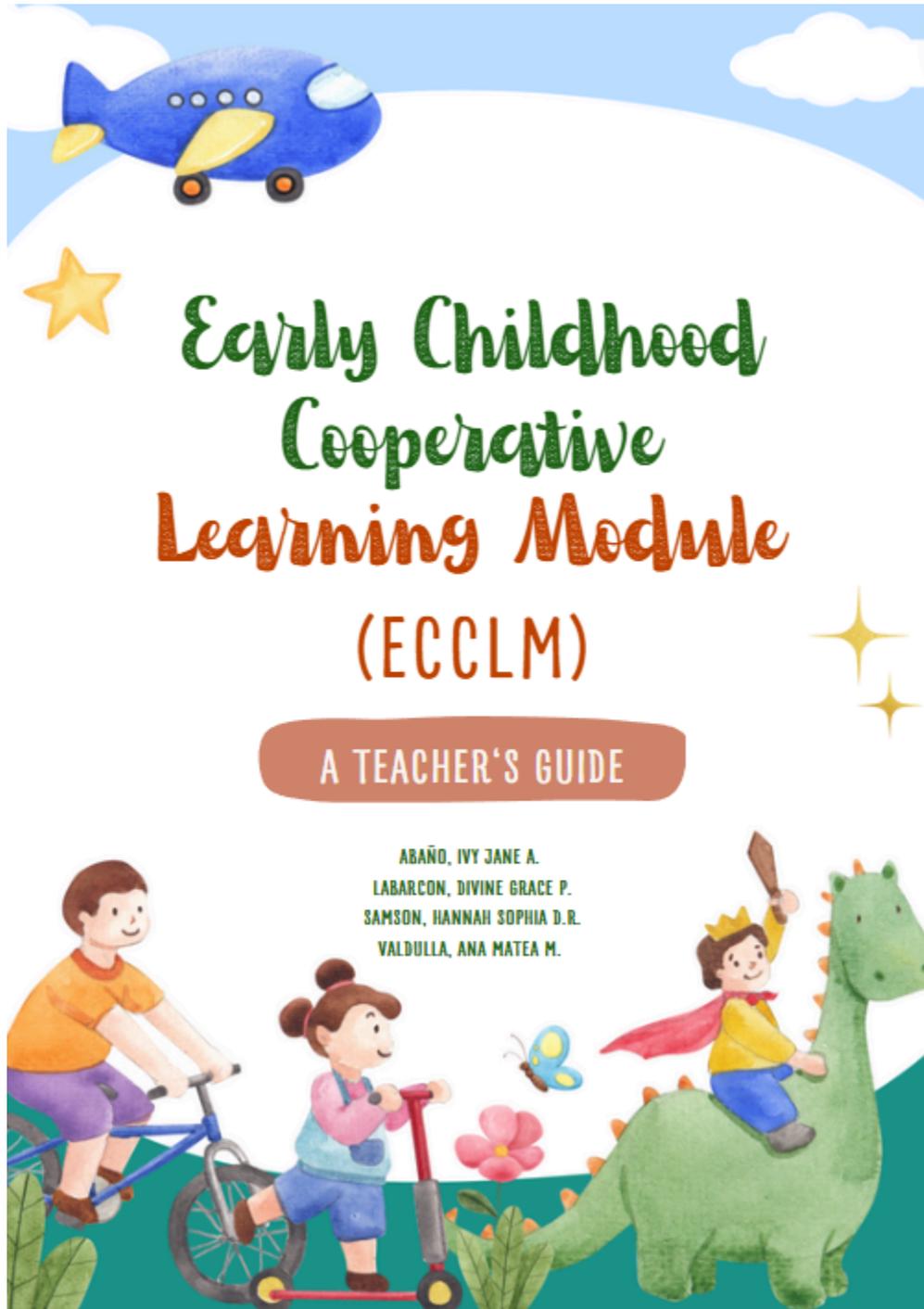
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<b>E. GROUP PROCESSING</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>The group processing sessions in our cooperative learning module will serve to enhance...</b>					
1. collaborative skills that promote self-reflection, focusing on both successes and areas for improvement.					
2. open communication among learners about their collaborative experiences in group activities.					
3. learners' ability to actively evaluate their group's performance in upcoming daycare activities.					
4. collaborative skills highlighting group processing as an essential step in cooperative learning.					
5. collaboration that fosters a supportive environment where learners can share their thoughts and feelings about group tasks.					
6. learners' ability to provide constructive feedback to their peers.					
7. collaboration by providing opportunities for learners to set goals and strategize for improved group dynamics.					
8. learners' active engagement in self-assessment and reflection on their contributions to the group.					
9. collaboration that fosters a shared sense of responsibility for the group's success.					
10. positive and inclusive environment in collaborative settings.					

**Appendix B**

Sample Early Childhood Cooperative Learning Module



## Appendix C

### Consent Form



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**Informed Consent form for Teachers**

This informed Consent Form is for Teachers in daycare, and who we are inviting to participate in our research. The title of our research project is "Development and Acceptability of Early Childhood Module focusing on Cooperative Learning for Daycare in Antipolo.

**Hannah Sophia D.R. Samson**  
**Our Lady of Fatima University**

**This Informed Consent Form has two parts:**

- **Information Sheet (to share information about the research with you)**
- **Certificate of Consent (for signatures if you agree to take part)**

**You will be given a copy of the full Informed Consent Form**

**PART I: Information Sheet**

**Introduction**

I am Hannah Sophia D.R. Samson, a third-year student at Our Lady of Fatima University pursuing Bachelor of Early Childhood Education. Alongside my classmates Ivy Jane A. Abano, Divine Grace Labarcon and Ana Matea Valdulla. We are conducting research to develop and evaluate the acceptability of the early childhood learning module that focuses on cooperative learning tailored for daycare. I am going to give you information and invite you to be part of this research. You do not have to decide today whether or not you will participate in the research. Before you decide, you can talk to anyone you feel comfortable with about the research.

The consent form may contain a sensitive question, unclear or incomprehensible explanation or question. You can tell us to stop the process of providing details or read the survey questions to clarify things that are not understood.

**Purpose of the research**

Cooperative learning, by definition, requires students to work together in order to achieve success and achieve their shared objective. This implies that in order for anything to happen, they must also rely on one another. However, schools do not often use this pedagogical approach, and it has never been as popular as differentiated instruction or blended learning. The purpose of the study is to use cooperative learning to develop a learning module. It seeks to explore the level of acceptability and relevance of cooperative learning activities in the context of student learning.

**Continued****OUR LADY OF FATIMA UNIVERSITY  
COLLEGE OF EDUCATION****Type of Research Intervention**

This study will incorporate a survey questionnaire to gather data from participants.

**Participant selection**

We are inviting teachers who are employed in daycare institutions, particularly in Antipolo, City. Their knowledge, skills and expertise in early childhood education make them an invaluable contribution to our research.

**Voluntary Participation**

Your participation in this research is entirely voluntary. You can choose whether or not to participate in this study.

**Duration**

During the survey administration, teachers will be allotted a minimum of 25 to 30 minutes to respond comprehensively to the questions presented in our survey questionnaire.

**Reimbursements**

In return for your time and effort, you will be provided a snack and a beverage for taking part in this study.

**Confidentiality**

Only the researchers and their professors can gather their information about the survey to be done. They will not share details outside of the research and in the presentation of the results will use a number of aliases.

**Sharing the Result.**

Only the Professors of the department of education and the statistician will have access to the study findings. Also, the organization will get a copy of the study.

**Right to Refuse or Withdraw**

Being a participant in our study as a volunteer. You have the freedom to withdraw from and decline to participate in this study at any point. There is no cost or negative consequences for refusing.

**Who to Contact**

If you have any questions, please do not hesitate to raise them at any point, including during and after the commencement of the study. If you wish to ask questions later, you may contact any of the following:

**Hannah Sophia D.R. Samson**

713 Landicho St. Felix Subd. Brgy. San Andres, Cainta, Rizal  
09613211130  
[@hdsamson3217ant@student.fatima.edu.ph](mailto:@hdsamson3217ant@student.fatima.edu.ph)

**Ivy Jane A. Abano**

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**Ana Matea Valdulla**

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@amvaldulla1707ant@student.fatima.edu.ph

This proposal has been reviewed and approved by Institutional Ethics Review Committee of Our Lady of Fatima University, which is a committee whose task it is to make sure that research participants are protected from harm. If you wish to find about more about the IERC, contact Dr. Jenica Ana Rivero at jrivero@fatima.edu.ph.

**PART II: Certificate of Consent**

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions that I have asked have been answered to my satisfaction. I consent voluntarily to participate as a participant in this research.

Print Name of Participant \_\_\_\_\_

Signature of Participant \_\_\_\_\_

Date \_\_\_\_\_

Day/month/year

**If illiterate**

A literate witness must sign (if possible, this person should be selected by the participant and should have no connection to the research team). Participants who are illiterate should include their thumb-print as well.

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

Print name of witness \_\_\_\_\_

AND Thumb print of participant

Signature of witness \_\_\_\_\_

Date \_\_\_\_\_

**Continued**



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**Day/month/year**

**Statement by the researcher/person taking consent**

**I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands that the following will be done:**

- 1.**
- 2.**
- 3.**

**I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.**

**A copy of this ICF has been provided to the participant.**

**Print Name of Researcher/person taking the consent** \_\_\_\_\_

**Signature of Researcher /person taking the consent** \_\_\_\_\_

**Date** \_\_\_\_\_  
**Day/month/year**

**Appendix D**  
**Tallysheet**

	A	B	C	D	E	F	G	H	I	J	K	L	M
1													
2	<b>Respondents</b>		<b>Sex</b>	<b>Age</b>	<b>Civil Status</b>		<b>Highest Educational Attainment</b>			<b>Years in Service</b>			
3													
4	1	2	2	2	2	2	2	2	2	2	2	1	
5	2	2	3	2	2	2	2	2	2	2	2	2	
6	3	2	4	2	2	2	2	2	1	2	2	4	
7	4	2	5	4	4	4	4	4	2	2	2	7	
8	5	2	4	2	2	2	2	2	2	2	2	7	
9	6	2	4	4	4	4	4	4	2	2	2	4	
10	7	2	3	2	2	2	2	2	1	2	2	5	
11	8	2	4	2	2	2	2	2	2	2	2	7	
12	9	2	3	2	2	2	2	2	2	2	2	4	
13	10	2	4	2	2	2	2	2	2	2	2	1	
14	11	2	4	2	2	2	2	2	2	2	2	5	
15	12	2	3	2	2	2	2	2	2	2	2	2	
16	13	2	3	2	2	2	2	2	1	2	2	4	
17	14	2	3	2	2	2	2	2	1	2	2	4	
18	15	2	4	1	1	1	1	1	1	1	1	1	
19	16	2	4	2	2	2	2	2	2	2	2	6	
20	17	2	1	2	2	2	2	2	2	2	2	1	
21	18	2	3	2	2	2	2	2	2	2	2	4	
22	19	2	2	2	2	2	2	2	2	2	2	1	
23	20	2	2	2	2	2	2	2	2	2	2	2	
24	21	2	3	2	2	2	2	2	2	2	2	1	

	M	N	O	P	Q	R	S	T	U	V	W	X
1												
2	<b>ce</b>	<b>Positive Interdependence</b>										
3		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	
4		5	5	4	4	5	5	5	5	4	5	
5		5	5	5	5	5	5	5	5	5	5	
6		5	4	4	5	5	5	4	5	5	5	
7		5	5	5	5	5	5	5	5	5	5	
8		5	5	4	4	5	5	4	4	5	5	
9		5	5	5	5	5	4	4	4	5	5	
10		5	4	5	5	5	4	4	4	4	4	
11		5	5	5	5	5	5	5	5	5	5	
12		5	5	5	5	5	5	5	5	5	5	
13		4	4	4	4	5	4	4	4	4	4	
14		4	4	5	4	5	4	5	4	4	4	
15		5	5	5	4	4	4	5	5	5	5	
16		5	5	5	5	5	5	5	5	5	5	
17		5	5	5	5	5	5	5	5	5	5	
18		5	5	5	5	5	5	5	5	5	5	
19		5	5	5	5	5	5	5	5	5	5	
20		5	5	5	5	5	5	5	5	5	5	
21		5	5	5	5	5	5	5	5	5	5	
22		5	5	5	5	5	5	5	5	5	5	
23		5	5	5	5	5	5	5	5	5	5	
24		5	5	5	5	5	5	5	5	5	5	
25		103	101	101	100	104	100	100	100	101	102	
26		4.90	4.81	4.81	4.76	4.95	4.76	4.76	4.76	4.81	4.86	48.18
27												

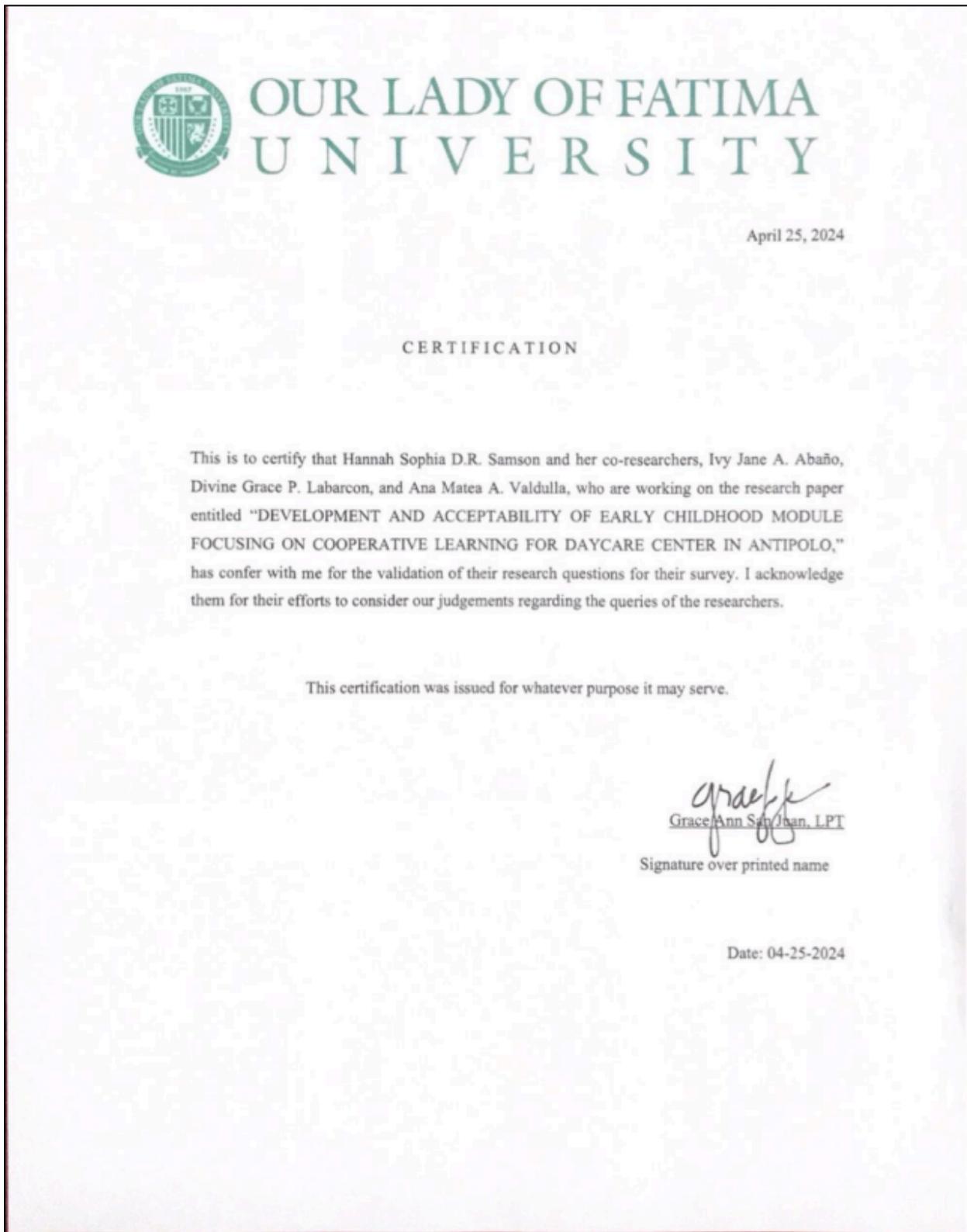


## Appendix E

### Ethical Review Certificate

<p>OUR LADY OF FATIMA UNIVERSITY</p>  <p><b>IERC</b></p> <p>INSTITUTIONAL ETHICS REVIEW COMMITTEE</p>	<p>R.I.S.E. Tower, Fatima Avenue Marulas, Valenzuela City 283-9754 loc. 1204 ierc@fatima.edu.ph</p>
<p>April 25, 2024</p>	
<p><b>SAMSON, HANNAH SOPHIA D.R.</b> College of Education Our Lady of Fatima University Reference Number: <u>2024-IERC3-20083</u></p>	
<p>Dear Mr./Ms. Samson,</p>	
<p>I am pleased to inform you that the research protocol for your research entitled <b>DEVELOPMENT AND ACCEPTABILITY OF EARLY CHILDHOOD MODULE FOCUSING ON COOPERATIVE LEARNING FOR DAYCARE CENTER IN ANTIPOLO</b> has been <b>APPROVED</b> by the Institutional Ethics Review Committee of the Our Lady of Fatima University. This means that your research protocol has passed the ethical standards imposed by the Philippine Health Research Ethics Board (PHREB).</p>	
<p>The following are the standard guidelines for you to follow:</p>	
<ol style="list-style-type: none"> <li>1. This approval will take effect for a period of twelve (12) months. At the end of this period, if the project has not been completed, you are required to accomplish an Application for Continuing Review Form, one month before the period ends, in order to renew the approval for another term. Approval effectivity period: April 25, 2024 to April 25, 2025.</li> <li>2. Once the study has been completed, or if for any instance terminated at an earlier time, you are required to submit a Study Completion/Termination Form, so that the committee can officially close the protocol.</li> <li>3. The approved research protocol must be followed at all times in order to protect the integrity of your human subjects. Changes in the protocol and materials utilized in the study necessitate you to submit a Protocol Amendment Form, to be approved by the committee once received.</li> <li>4. In such occurrence when the protocol was not followed, you are required to accomplish a Protocol Deviation/Violation Form within seven (7) working days after the occurrence in order to document the event.</li> <li>5. For studies that require longer periods of investigation, a Progress Report Form must be accomplished every semester.</li> <li>6. Failure to comply with the standard guidelines can lead to disapproval, or termination of the research protocol.</li> </ol>	
<p>I, together with the ethics committee, am very much excited for the completion of your investigation.</p>	
<p>Sincerely,</p>  <p>Jenica Ana R. Rivero, MAN, RN, PGDipHS Chair, Institutional Ethics Review Committee Our Lady of Fatima University</p>	
<p>Form 2.3</p>	

## Appendix F



Certificate of Questionnaire Validation

Continued



# OUR LADY OF FATIMA UNIVERSITY

April 21, 2024

## CERTIFICATION

This is to certify that Hannah Sophia D.R. Samson and her co-researchers, Ivy Jane A. Abaño, Divine Grace P. Labarcon, and Ana Matea M. Valdulla, who are working on the research paper entitled "DEVELOPMENT AND ACCEPTABILITY OF EARLY CHILDHOOD MODULE FOCUSING ON COOPERATIVE LEARNING FOR DAYCARE CENTER IN ANTIPOLLO," has confer with me for the validation of their research questions for their survey. I acknowledge them for their efforts to consider our judgements regarding the queries of the researchers.

This certification was issued for whatever purpose it may serve.

  
Howard D. Lancaster, LPT, MACS

Signature over printed name

Date: \_\_\_\_\_

Continued



OUR LADY OF FATIMA  
UNIVERSITY

May 2, 2024

CERTIFICATION

This is to certify that Hannah Sophia D.R. Samson and her co-researchers, Ivy Jane A. Abaño, Divine Grace P. Labarcon, and Ana Matea M. Valdulla, who are working on the research paper entitled "DEVELOPMENT AND ACCEPTABILITY OF EARLY CHILDHOOD MODULE FOCUSING ON COOPERATIVE LEARNING FOR DAYCARE CENTER IN ANTIPOLO," has confer with me for the validation of their research questions for their survey. I acknowledge them for their efforts to consider our judgements regarding the queries of the researchers.

This certification was issued for whatever purpose it may serve.

DR. HANDEL ALBA ALARCON

Signature over printed name

Date: May 2, 2024

**Appendix G**

## Statistician's Certificate



OUR LADY OF FATIMA  
UNIVERSITY

**STATISTICIAN'S CERTIFICATE**

I hereby certify that the manuscript entitled "*Development and Acceptability of Early Childhood Module focusing on Cooperative Learning for Daycare in Antipolo*" by the following authors:

Samson, Hannah Sophia D.R.

Abano, Ivy Jane A.

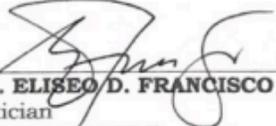
Labarcon, Divine Grace P.

Valdulla, Ana Matea M.

has been examined statistically. All corrections and recommendations on the statistical tool and interpretation have been done in/or incorporated in the final manuscript.

Signed this 13<sup>th</sup> day of June in the year of our Lord, 2024 at Our Lady of Fatima University - Antipolo Campus.

Signed by:

  
ENGR. ELISEO D. FRANCISCO JR., MIT  
Statistician  
SN: STAT 026 [BSEd]

**Appendix H**  
**Letter of Request for Endorsement Letter**

 <p style="font-size: 24pt; margin: 0;"><b>OUR LADY OF FATIMA UNIVERSITY</b></p>
<p>May 10, 2024</p> <p><b>Hon. Casimiro "Jun" A. Ynares III</b> Mayor of Antipolo City Corner M.L. Quezon and Carigma Streets, Brgy. San Roque, Antipolo City, Rizal, 1870</p> <p style="text-align: center;">Thru: Mr. Frescian O. Canlas Department of Social Welfare and Development</p> <p>Dear Mr. Canlas,</p> <p>I am writing to request a letter of endorsement from your good office to conduct a survey in selected daycare centers in the city of Antipolo for our research entitled "Development and Acceptability of Early Childhood Module focusing on Cooperative Learning for Daycare Center in Antipolo." The aim of this research is to develop a module and assess its acceptability focusing on cooperative learning within daycare centers.</p> <p>We believe that gaining insights from daycare centers within Antipolo will greatly contribute to the depth and comprehensiveness of our study. The information gathered will not only enhance our understanding but also potentially inform policy decisions and interventions aimed at improving the quality of daycare services in the community.</p> <p>We assure you that the survey will be conducted with the utmost professionalism and sensitivity to the needs and concerns of the daycare centers and their stakeholders. Additionally, all data collected will be treated with strict confidentiality and used solely for research purposes.</p> <p>Please find enclosed a detailed outline of our survey questionnaire. If you have questions or concerns, please reach me at 09613211130 or <a href="mailto:samsonhannah28@gmail.com">samsonhannah28@gmail.com</a> and we will provide any further information or clarification required regarding our research initiative.</p> <p>Thank you for considering our request. We look forward to your favorable response and cooperation in this endeavor.</p> <p>Sincerely,</p> <p> Hannah Sophia D.R. Samson Principal Researcher Our Lady of Fatima University</p> <p>Noted by:</p> <p> Shierland C. Garcia, LPT, MACDDS Research Adviser</p> <p>Endorsed by:</p> <p>Hon. Casimiro "Jun" A. Ynares III Mayor of Antipolo City</p>

**Appendix I**

**Certificate of Appearance (CSWD)**



**Continued**



Republic of the Philippines  
**CITY OF ANTIPOLO**  
Province of Rizal

*City Social Welfare and Development Office*

P. Burgos Street, Barangay San Jose, Antipolo City, Rizal  
Telephone No.: 8584-77-58 | E-mail Address: socialwelfare.antipolo@gmail.com



**CERTIFICATE OF APPEARANCE**

This is to certify that **MS. DIVINE GRACE P. LABARCON**, a student of Our Lady of Fatima University, has personally appeared in this office to conduct a survey in selected daycare centers in Antipolo City.

Issued this 10<sup>th</sup> day of March 2024 at the City Social Welfare and Development Office, GAD Building, Barangay San Jose, Antipolo City.

**FRESCIAN O. CANLAS, RSW**  
Department Head



Republic of the Philippines  
**CITY OF ANTIPOLO**  
Province of Rizal

*City Social Welfare and Development Office*

P. Burgos Street, Barangay San Jose, Antipolo City, Rizal  
Telephone No.: 8584-77-58 | E-mail Address: socialwelfare.antipolo@gmail.com



**CERTIFICATE OF APPEARANCE**

This is to certify that **MS. ANA MATEA M. VALDULLA**, a student of Our Lady of Fatima University, has personally appeared in this office to conduct a survey in selected daycare centers in Antipolo City.

Issued this 10<sup>th</sup> day of March 2024 at the City Social Welfare and Development Office, GAD Building, Barangay San Jose, Antipolo City.

**FRESCIAN O. CANLAS, RSW**  
Department Head

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