

The Impact of Teacher's Classroom Environment on Elementary Home Economics Learner Engagement

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Abstract. This study investigated the relationship between the classroom environment and student engagement in elementary Home Economics (HE) education within the Division of Davao Del Sur. Creating an engaging classroom environment in HE faces challenges such as resource limitations, diverse student needs, and insufficient teacher training in classroom management and instructional strategies. Using a non-experimental quantitative design with a descriptive correlation approach, data were collected from 120 elementary HE teachers aged 30–50, averaging 10–20 years of experience, selected via purposive sampling. Validated and reliable survey questionnaires were analyzed using mean, Pearson R correlation, and Multiple Linear Regression. Results revealed a high extent of classroom environment and student engagement, both frequently evident. A strong positive correlation was found between classroom environment and student engagement, with the physical environment, classroom management, social-emotional climate, and instructional practices significantly influencing engagement. Regression analysis confirmed the classroom environment's significant impact on student engagement. The findings emphasize the need for a holistic approach to classroom environment design, addressing physical, social-emotional, instructional, and managerial components to enhance student engagement and learning outcomes in elementary HE education.

KEY WORDS

1. Classroom Environment 2. Student Engagement 3. Elementary Home

Economics Education

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1. Introduction

Fostering learner engagement has become a crucial goal for teachers worldwide. Among the various factors influencing learner engagement, the classroom environment plays a crucial role. The atmosphere within a classroom significantly impacts learners' levels of interest, participation, and overall engagement. In the context of elementary home economics education, where practical skills and knowledge are cultivated, understanding how the teacher's classroom environment influences learner en-

gagement is particularly pertinent. However, creating an engaging classroom environment in elementary home economics education faces several challenges, including resource limitations, varying learner needs and abilities, and the need for professional development for teachers in effective classroom management and instructional strategies. These challenges can hinder the ability to create a classroom environment that fosters engagement among all learners giving learners with ample physical envi-

ronment, social-emotional climate, appropriate instructional practices and classroom management. Specifically, physical environment such as the arrangement of space, visual appeal, and ease of access to learning materials significantly influence learners' capacity to concentrate, participate actively, and collaborate with their classmates. A well-structured and aesthetically pleasing environment not only fosters engagement with the learning content but also enhances social interactions, leading to a more enriching educational atmosphere (Baker, 2020). A positive social-emotional climate, characterized by supportive teacher-learner relationships, respect, and empathy, is crucial for making learners feel safe, valued, and more willing to participate in classroom activities (Jennings Greenberg, 2019). Implementing effective instructional strategies that are interactive, tailored to individual learner needs, and adaptable to various learning preferences can profoundly boost learner engagement which transform the educational experience, fostering a more meaningful and enjoyable learning environment for all learners (Hattie Donoghue, 2019). Lastly, proficient classroom management strategies are essential for creating an orderly environment that minimizes distractions and maximizes learning opportunities, thereby supporting sustained learner engagement (Emmer Stough, 2021). Together, these elements of the classroom environment work synergistically to promote a dynamic and engaging learning experience for elementary home economics learners, underscoring the critical role of teachers in shaping educational outcomes. In global context, the impact of the teacher's classroom environment on elementary home economics learner engagement reveals diverse challenges and issues. For instance, physical environments in classrooms vary significantly between countries, influencing learner engagement levels. Inadequate resources and overcrowded classrooms in developing nations such as Nigeria and India limit effective engagement

and active participation (Ololube et al., 2020; Subramaniam Hanafi, 2021). Conversely, well-equipped classrooms in countries like Japan and Finland contribute positively to learner interest and enthusiasm (Takala Saarinen, 2022). The disparity in physical resources highlights the global inequality in educational environments, which affects learner engagement in home economics. Social-emotional climate and instructional practices also play crucial roles in learner engagement but face global inconsistencies. In the United States, teachers who foster a positive social-emotional climate through supportive relationships and interactive teaching practices see higher levels of learner enthusiasm and persistence (Jennings Greenberg, 2019). However, in some countries, traditional instructional practices that focus on rote learning rather than interactive and learner-centered approaches can hinder learner engagement. In countries like China and South Korea, where academic pressure is high, learners may show less interest and reduced positive social interactions due to stress and competition (Chen et al., 2020). These differences underscore the need for globally adaptable teaching strategies to enhance engagement. Effective classroom management is essential for sustaining learner engagement across different contexts. Teachers in Finland, known for their successful educational system, utilize learner-centered classroom management practices that promote active participation and effort (Kumpulainen et al., 2020). In contrast, in regions where classroom management strategies are more authoritarian, such as in some Middle Eastern countries, learner engagement can suffer due to a lack of autonomy and motivation (Alsubaie, 2020). These findings suggest that adopting flexible and supportive classroom management practices can universally improve learner engagement in home economics, regardless of the geographic and cultural context. In the Philippine setting, the impact of the teacher's classroom environment on elemen-

tary home economics learner engagement is influenced by various challenges. The physical environment of classrooms often suffers from insufficient resources and overcrowding, which negatively impacts learner engagement. Studies have shown that many public schools in the Philippines lack basic facilities, including proper ventilation and sufficient space, which hinders learners' active participation and interest in home economics (Philippine Institute for Development Studies, 2020; David et al., 2019). These inadequate physical conditions make it difficult for teachers to create an engaging learning environment, leading to lower levels of learner enthusiasm and persistence. Relatively, the social-emotional climate in Philippine classrooms also presents significant challenges to learner engagement. Many learners face socio-economic issues that affect their emotional well-being and, consequently, their engagement in school activities. Teachers often struggle to provide the necessary emotional support due to high learner-to-teacher ratios and a lack of training in social-emotional learning (Llego, 2020). Research indicates that when learners do not feel emotionally supported, their interest and persistence in subjects like home economics decrease (Lavadia, 2019). Another, instructional practices and classroom management strategies in the Philippines further complicate learner engagement in home economics. Traditional teaching methods, which are prevalent in many schools, tend to focus on rote learning rather than interactive and learner-centered approaches. This teaching style often fails to capture learners' interest and does not encourage active participation (Valbuena, 2021). Additionally, classroom management issues, such as large class sizes and disciplinary problems, impede the implementation of effective instructional practices (Bernardo, 2019). Locally, specific districts, such as Kiblawan North District experienced educational challenges related to teacher's classroom environment that affects

learner's engagement. These include limited resources leading to overcrowded classrooms, inadequate facilities affecting the physical environment, insufficient training for teachers in creating a positive social-emotional climate, and challenges in implementing appropriate instructional practices and effective classroom management. Moreover, while the significance of the classroom environment on learner engagement is well-recognized, there is a noticeable lack of research specifically targeting home economics settings. The majority of existing studies emphasize older learners, highlighting an essential need for targeted research on the influence of teacher-created environments on the engagement of elementary home economics learners, who are in a crucial phase of their educational development (Park Holloway, 2019)

1.1. Theoretical/Conceptual Framework—

This study can be explored through various theoretical frameworks that highlight the significance of the learning environment in shaping young learners' engagement and overall educational experience. One such theory is Bronfenbrenner's (1979) Ecological Systems Theory as cited by Schunk DiBenedetto (2020), which posits that a child's development is influenced by various systems of relationships, with the immediate environment of the classroom being a microsystem where significant interactions occur. This perspective suggests that the classroom environment, shaped by the teacher's practices, physical space, and emotional climate, plays a crucial role in engaging learners by providing a context that supports or hinders their willingness to participate and learn. Another relevant theory is Vygotsky's (1979) Social Constructivism as cited by (Sawyer, 2020), which emphasizes the importance of social interactions and culture in the process of learning. The classroom environment created by the teacher can facilitate or impede the kind of social interaction and scaffolding necessary for effective learning. In an elementary home

economics classroom, a constructivist approach would involve hands-on activities and collaborative projects that allow learners to build their understanding through practical experience and social interaction. Teachers who design their classroom environments to facilitate collaborative learning and problem-solving can significantly boost learner engagement. The Self-Determination Theory (SDT) by Deci and Ryan (1985) as cited by Jang et al. (2021) also provides insight into how the classroom environment affects learner engagement. SDT suggests that learner engagement flourishes in environments that satisfy basic psychological needs: autonomy, competence, and relatedness. Teachers who create a classroom environment that empowers elementary home economics learners, acknowledges their achievements, and fosters a sense of community can significantly boost their motivation and engagement. This theory underscores the importance of the teacher's role in

designing classroom practices that nurture learners' intrinsic motivation to engage and learn. In the context of elementary home economics, a classroom environment that supports learners' autonomy can lead to increased engagement and intrinsic motivation. When teachers create a learning atmosphere that allows learners to make choices and feel a sense of ownership over their activities, it fosters a deeper engagement. On the other hand, the conceptual framework of the study is shown in Figure 1. The independent variable is the elementary teacher's classroom environment in Division of Davao Del Sur in terms of physical environment, social-emotional climate, instructional practices, and classroom management. On the other hand, the dependent variable is the elementary home economics learner engagement in terms of active participation, interest and enthusiasm, persistence and effort, and positive social interaction

2. Methodology

This chapter discusses the research methods in conducting the study which are considered strategies or techniques utilized in the collection of data evidence for analysis in order to uncover new information or create better understanding of a topic. Contents of this chapter include the research design, research respondents of the study, research instrument and the data gathering procedures.

2.1. Research Design—A descriptive-correlational research design is an effective methodology for investigating the relationship between the classroom environment created by teachers and the level of learner engagement among elementary home economics learners. This design enables the researcher of this study to observe and describe the characteristics of the classroom environment, subsequently analyzing how these characteristics correlate with learner engagement levels (Johnson Davis, 2021). The descriptive component of this research involves systematically detailing and examining variables such as the teacher's classroom environ-

ment and the indicators of learner engagement. The objective is to provide an in-depth portrayal of classroom settings across different elementary home economics contexts, capturing the diversity in how teachers design their learning spaces. Such descriptive data are crucial for identifying key elements of the classroom environment that may impact learner engagement, thus laying the groundwork for further analysis. Once the descriptive data have been gathered and analyzed, the correlational aspect of the research design was employed to examine the relationships between the characteristics of the teacher's classroom environment and the level

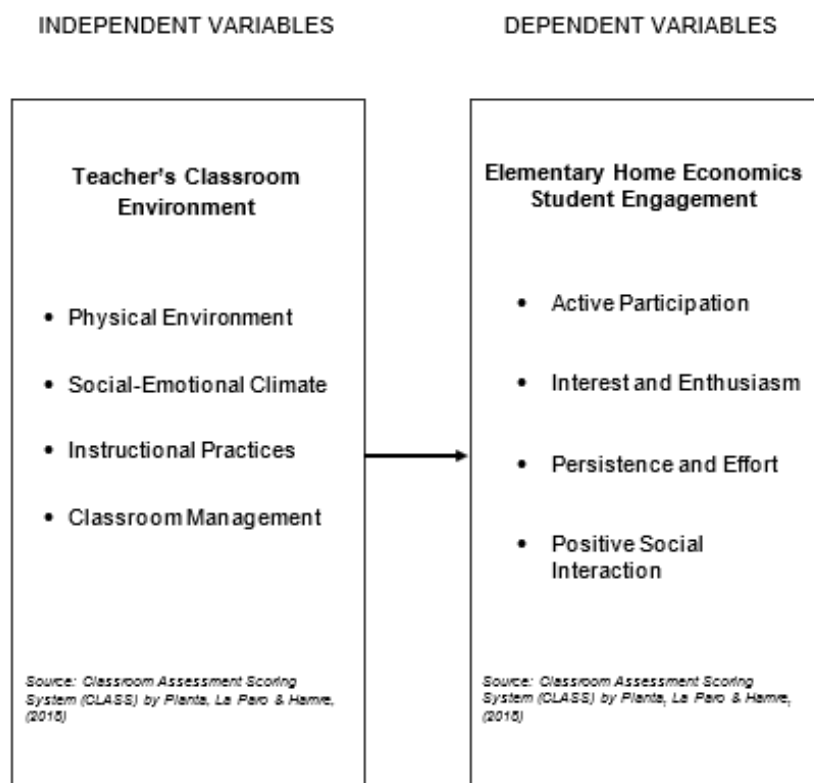


Fig. 1. Conceptual Paradigm Showing the Variables of the Study

of learner engagement. This phase involves using statistical methods to identify patterns and potentially infer correlations between specific environmental factors and learner engagement outcomes. By doing so, the researcher can highlight significant connections that warrant further exploration through experimental or longitudinal studies. Utilizing a descriptive-correlational research design in this context allows the researcher to map out the various aspects of teachers' classroom environments and then explore how these aspects relate to learner engagement in elementary home economics. This dual approach provides a comprehensive understanding of the interplay between the environment and learner behavior, thereby guiding teachers and policymakers in creating more engaging and effective learning spaces (Fraenkel et al., 2019).

2.2. Research Ethics—This study adhered strictly to the established protocols and standard guidelines required for conducting research, particularly in managing respondents' data. The survey questionnaire, along with supporting documentation from authors, will be submitted for thorough evaluation. Following approval from the Ethics Committee, the researcher will proceed with the study. Social Value. Investigating the impact of teacher's classroom environment on elementary home economics learner engagement in the Division of Davao Del Sur holds significant social value, as it directly influences learners' active participation and learning outcomes in practical life skills. A well-structured and supportive classroom environment has been shown to enhance learner engagement, leading to improved academic performance and personal development. In the context of Home Economics, fostering an engaging classroom environment is ethically imperative. Such an environment not only promotes individual learner success but also contributes to the well-being of families and the broader community by preparing learners to make informed decisions in their daily lives. Hence, examining

and optimizing the classroom environment in Home Economics education is a critical step toward nurturing responsible and capable citizens, ultimately strengthening the social fabric of the Division of Davao Del Sur. Informed Consent. Ensuring informed consent in this study is paramount to uphold its ethical standards. Informed consent involves providing participants and their guardians with comprehensive information about the study's purpose, procedures, potential risks, and benefits, ensuring that they understand and voluntarily agree to participate (Flicker et al., 2019). This process is particularly crucial in research involving minors such as the respondents of this study, as it necessitates obtaining consent from both the children and their parents or legal guardians. The researcher will communicate the information in an accessible manner, considering the participants' age and comprehension levels. Furthermore, the researcher will guarantee that participation is entirely voluntary, with the option to withdraw at any time without penalty (Gelinas et al., 2020). Additionally, the researcher will protect the privacy and confidentiality of the participants' data, adhering to legal and ethical guidelines to prevent any potential harm or misuse of the information collected (Miller et al., 2020). Overall, a thorough and transparent informed consent process fosters trust and respect between researchers and participants, ensuring ethical integrity and the validity of the study's findings. Vulnerability of Research Participants. Addressing the vulnerability of research participants is considered in this study. Elementary school learners are considered a vulnerable population due to their limited capacity to fully understand the research process and its implications, necessitating heightened protective measures (Levine et al., 2020). The researcher in this study will ensure that the study design minimizes any potential risks or discomforts and that the benefits outweigh these risks. It is crucial to create a supportive environment where

learners feel safe and respected, and where their participation is completely voluntary without any undue influence or coercion from teachers or guardians (Miller et al., 2020). Additionally, the researcher will implement strict confidentiality protocols to protect the personal information of the learners, ensuring that their privacy is not compromised. Extra care should be taken to communicate the purpose and procedures of the research in a way that is comprehensible to children, often involving simplified language and visual aids (Beauchamp Childress, 2019). By recognizing and addressing these vulnerabilities, the researcher can ethically conduct their study while safeguarding the well-being and rights of the young participants.

Privacy and Confidentiality. Maintaining privacy and confidentiality is essential to uphold ethical standards of this study. The researcher will ensure that all personal data collected from participants is securely stored and accessible only to authorized personnel. This involves using anonymization techniques, such as assigning unique codes to participants' data, to protect their identities (Flick, 2020). Moreover, the researcher will obtain explicit consent from participants and their guardians, detailing how the data will be used, stored, and shared, if at all. The confidentiality of responses must be guaranteed to prevent any potential repercussions on the learners' academic and social lives. Ensuring that data is collected, processed, and reported in a manner that upholds confidentiality can help foster trust between the participants and researcher, thus enhancing the integrity of the study (Berg, 2019).

The Risk, Benefits Safety. Addressing the risks, benefits, and safety of participants in this study is also important. Elementary learners are a vulnerable population, and it is vital to minimize any potential risks associated with their participation. This includes psychological risks, such as stress or anxiety, which could arise from classroom observations or assessments (Gordon et al., 2019). The researcher will create a sup-

portive and non-threatening environment where learners feel comfortable and safe. Additionally, the potential benefits of the study should be clearly outlined, not only to the participants but also to their guardians and school administrators. Benefits might include insights into how to improve learner engagement and learning outcomes in home economics classes. Ensuring safety involves regular monitoring for any adverse effects and having protocols in place to address them promptly. By balancing risks and benefits and prioritizing the safety and well-being of participants, the researcher can conduct her study ethically and responsibly (Farrimond, 2020).

Justice. The principle of justice is fundamental to ensure that the benefits and burdens of research are equitably distributed among all participants. This involves ensuring that all eligible learners have an equal opportunity to participate in the study, regardless of their socioeconomic status, race, or other demographic factors (Freeman Vasconcelos, 2020). The researcher will be vigilant to avoid any form of discrimination or bias in participant selection. Additionally, justice requires that the study does not disproportionately burden any particular group of learners while ensuring that all participants stand to gain from any positive outcomes of the research (Resnik, 2020). This approach helps to promote fairness and equity within the research process, aligning with broader ethical standards in educational research.

Transparency. Transparency is another critical ethical consideration, encompassing openness and honesty throughout the research process. The researcher will provide clear and comprehensive information about the study's objectives, methods, potential risks, and benefits to all stakeholders, including learners, parents, and school administrators (Sanjari et al., 2019). This transparency fosters trust and facilitates informed consent, ensuring that participants and their guardians are fully aware of what participation entails. Furthermore, maintaining transparency in reporting and

disseminating findings is crucial, as it allows the research community and the public to evaluate the validity and reliability of the study (Nosek et al., 2019). This practice not only upholds ethical standards but also contributes to the advancement of knowledge by enabling others to build upon the research. Qualification of the Researcher. The researcher in this study has the necessary skills, knowledge, and experience to conduct the study effectively and ethically. This includes understanding research methodologies, ethical guidelines, and the specific context of elementary home economics education. The researcher also engages in continuous professional development and seek advice from more experienced colleagues or ethics boards when necessary. Ensuring that the researchers are well-qualified helps to protect participants and enhances the validity and reliability of the study findings (Resnik, 2018). Additionally, the researcher is enrolled in the thesis development course which means all the pre-requisite courses and requirements were already completed. Adequacy of Facilities. The adequacy of facilities is essential to conducting ethical research, ensuring that the physical and logistical infrastructure supports the well-being and comfort of participants. This includes having appropriate classroom environments that are conducive to both learning and data collection without disrupting the regular educational activities (Freeman et al., 2020). The researcher will also ensure that any equipment used for data collection is safe and does not pose any risk to the learners. Adequate facilities extend to the provision of necessary resources for addressing any adverse events or emergencies that may arise during the study. By ensuring that facilities are adequate and safe, the researcher demonstrates a commitment to the participants' well-being and the integrity of the research process (Flick, 2020). Community Involvement. Community involvement is another critical aspect of ethical research, particularly in educational settings. Engaging

with the school community—including teachers, parents, and administrators—throughout the research process ensures that the study is relevant and respectful of the community's needs and values (Wang et al., 2020). This involvement can include consulting with community members during the study design phase, involving them in decision-making processes, and sharing findings in a manner that is accessible and useful to the community. Such engagement helps to align the research objectives with the community's educational goals and fosters a sense of ownership and collaboration. Furthermore, it can enhance the applicability and impact of the research findings, as they are more likely to be integrated into practice when the community feels involved and invested in the research outcomes (Cargo Mercer, 2019).

2.3. Research Respondents—The conduct of this study were held on the selected elementary schools in the Division of Davao Del Sur. There were one hundred and twenty (120) elementary teachers that will serve as the responders in this research. The study employed a purposive sampling method to select respondents, meaning participants will be intentionally chosen based on specific characteristics or criteria that are relevant to the research as presented in the above statements. This approach enables the researcher to gather samples from respondents that align closely with the study's objectives (Johnson Davis, 2021). Utilizing purposive sampling ensures that the chosen respondents are ideally positioned to offer valuable insights and detailed information regarding the impact of teacher's classroom environment on elementary home economics learner engagement.

2.4. Research Instrument—The development of research instrument in this study is considered a crucial step in the research methodology, serving as key tools for obtaining data and insights from participants. These instruments are fundamental in maintaining the integrity and reliability of research outcomes, ensuring that

the data collected is both valid and dependable (Flick, 2020). The development and implementation of standardized research tools facilitate consistent data collection methods, which are essential for the replication of studies and for making comparisons across different contexts and scenarios. This uniformity is critical as it allows researchers to validate their findings and enhance the generalizability of their results (Bryman, 2019). In the context of this study, a survey questionnaire was employed as the primary data collection method. The questionnaire was structured into two distinct sections, each targeting a specific variable under investigation. This structured approach was designed to systematically gather comprehensive data, enabling a thorough analysis of the variables involved. Through this meticulous strategy, the researcher aimed to obtain detailed data that accurately represents the complexities of the variables being studied. The use of a well-designed survey questionnaire ensures that the data collection process is both efficient and effective, capturing the nuances of the participants' experiences and perspectives (Fowler, 2020). By dividing the questionnaire into separate parts, the researcher can focus on each variable in detail, thereby enhancing the precision and depth of the data collected. This

approach not only contributes to the robustness of the research findings but also supports the study's overall validity and reliability (Dillman et al., 2019). Furthermore, the systematic collection of data through a survey questionnaire facilitates the comparison of findings across different studies, contributing to the broader body of knowledge in the field. Ultimately, this methodical and detailed approach to data collection is essential for producing high-quality research that accurately reflects the intricacies of the variables being examined. For the first part of the survey instrument, this would provide data on the extent of elementary teacher's classroom environment in Division of Davao Del Sur in terms of physical environment, social-emotional climate, instructional practices, and classroom management. Questions from this part of the instrument were adopted from the Classroom Assessment Scoring System (CLASS) by Pianta, La Paro Hamre, (2018). In the process of interpreting its data, a five-point Likert Scale of the survey having five (5) as the highest and one (1) as the lowest. The scale with description and interpretation is shown below. The following five order graduations with their respective range of means and description were considered:

For the second part of the questionnaire, this will determine the level of elementary home economics learner engagement in terms of active participation, interest and enthusiasm, persistence and effort, and positive social interaction. Still, the questions from this part of the instrument were also adopted from the Classroom Assessment Scoring System (CLASS) by Pianta,

La Paro Hamre, (2018). The same with the first part of the survey questionnaire, a five-point Likert Scale of the survey having five (5) as the highest and one (1) as the lowest in interpreting its data. The scale with description and interpretation is shown below. The following five order graduations with their respective range of means and description were considered:

Furthermore, research tools that are well-defined and straightforward can improve participants' comprehension and willingness to participate, which is vital for the collection of reliable data (Dillman et al., 2019). The cre-

ation of these instruments is fundamental to the authenticity and thoroughness of research outcomes, highlighting its critical role in the research methodology. The validity of the tool was verified by a research experts and a panel

Scale Descriptive Ratings and Interpretation: Classroom Environment of Elementary Teachers

Range	Descriptive Equivalent	Interpretation
4.20–5.00	Very High	This means that the elementary teacher's classroom environment is always evident.
3.40–4.19	High	This means that the elementary teacher's classroom environment is often evident.
2.60–3.39	Moderate	This means that the elementary teacher's classroom environment is sometimes evident.
1.80–2.59	Low	This means that the elementary teacher's classroom environment is seldom evident.
1.00–1.79	Very Low	This means that the elementary teacher's classroom environment is not evident.

committee. Moreover, the survey tool undergone pilot testing to assess its reliability, which was measured through the instrument's Cronbach's Alpha value.

2.5. Data Gathering Procedure—At the outset of the data gathering procedure, the researcher wrote a letter seeking permission from the Dean of the Graduate School so that this research study will be conducted. Next, the researcher secured a letter asking for permission to the Schools Division Superintendent, Division of Davao Del Sur through the channels of the Office of Public Schools District Supervisors (PSDS) of the selected different schools. Upon approval of the permit, the survey questionnaire will be ready for the conduct of the study. During the conduct of the study, the researcher personally hand-in the survey questionnaire to the selected respondents. The questionnaire was retrieved right after the respondents were done answering the survey questions. Lastly, the collected data was analyzed by a statistician using the different measures of treating the data as presented this chapter. The results in the treatment of the data were interpreted for further information of the study.

2.6. Data Analysis—The study used the respondents' collected data for analysis. The following statistical tools will be used in the analysis and interpretation of the responses in this study to uncover meaningful insights from collected data. Mean. The mean is a fundamental component in the descriptive analysis of this research, serving to summarize the central tendency of continuous variables such as learner engagement levels and the quality of the preschool teacher's classroom environment. By calculating the mean, the researcher can obtain a clear snapshot of the average conditions surrounding these variables, which provides essential insights into the overall dynamics of the classroom and the behaviors of learn-

Scale Descriptive Ratings and Interpretation: Learner Engagement in Elementary Home Economics Education

Range	Descriptive Level	Interpretation
4.20–5.00	Very High	This means that the elementary home economics learner engagement as perceived by elementary teachers is always evident.
3.40–4.19	High	This means that the elementary home economics learner engagement as perceived by elementary teachers is often evident.
2.60–3.39	Moderate	This means that the elementary home economics learner engagement as perceived by elementary teachers is sometimes evident.
1.80–2.59	Low	This means that the elementary home economics learner engagement as perceived by elementary teachers is seldom evident.
1.00–1.79	Very Low	This means that the elementary home economics learner engagement as perceived by elementary teachers is not evident.

ers (Field, 2019). This statistical measure is not only pivotal in characterizing the basic features of the data but also establishes a solid foundation for more advanced analyses. Understanding the mean helps the researcher and teachers comprehend how typical or atypical learner engagement levels are, thus facilitating informed discussions regarding instructional practices and classroom management strategies (Gravetter Wallnau, 2020). As such, the mean serves as a crucial first step in analyzing the data, allowing researchers to contextualize their findings within the larger framework of educational research. Pearson R Correlation. As the analysis progresses, the Pearson r correlation coefficient is utilized to investigate the relationship between the teacher's classroom environment and learner engagement in elementary home economics. This statistical tool is vital for measuring both the strength and direc-

tion of the linear relationship between the two variables, allowing the researcher to ascertain whether changes in the classroom environment correspond to increases or decreases in learner engagement levels (Dawson, 2020). By employing Pearson's r , the study can determine the nature of the correlation—whether positive or negative—thus revealing significant patterns in how classroom dynamics influence learner behaviors. This correlation analysis not only aids in understanding the interplay between the environment and learner engagement but also highlights potential areas for intervention within the classroom. Identifying these correlations is crucial for developing strategies aimed at enhancing learner participation and learning outcomes, providing teachers with actionable insights that can be applied to improve the educational experience (Hinkle et al., 2020). Multiple Linear Regression (MLR). Finally, Multiple

Linear Regression (MLR) is implemented to further explore the relationship between classroom environment and learner engagement, taking into account multiple independent variables simultaneously. This sophisticated statistical method enables researchers to assess how various components of the classroom environment collectively affect learner engagement while controlling for the influence of other factors (Frost et al., 2020). MLR is particularly effective in identifying specific elements within the classroom that have the most pronounced impact on engagement levels, thereby yielding

evidence-based insights that can inform targeted interventions. By employing MLR, the study can present a nuanced understanding of the dynamics at play, contributing significantly to the development of effective strategies to enhance learner engagement in elementary home economics. The insights gained from this analysis are invaluable for teachers seeking to optimize their teaching environments and foster greater learner involvement, ultimately leading to improved educational outcomes (Tabachnick Fiddell, 2019).

3. Results and Discussion

This chapter presents the results and discussions based on the data collected during the study, offering a thorough analysis and interpretation of the findings. It includes an in-depth examination of the data, highlighting the implications and outcomes of the results obtained. The discussions are meticulously aligned with the research questions and the statement of the problem articulated in the preceding chapters. Consequently, the deliberations in this chapter provide a comprehensive understanding of how the findings address the core issues investigated in this study.

3.1. Extent of extent of elementary teacher's classroom environment in Division of Davao Del Sur—Summary of the Extent of extent of elementary teacher's classroom environment in Division of Davao Del Sur. The analysis of Table 1 reveals the extent of elementary teachers' classroom environment in the Division of Davao Del Sur, with an overall mean of 3.76, categorized as "High." This means that the elementary teacher's classroom environment is always evident. This further suggests that elementary teachers in the Division of Davao Del Sur have successfully created class-

room environments conducive to learning and development. Relatively, each of the four indicators—Physical Environment, Social-Emotional Climate, Instructional Practices, and Classroom Management—also received "High" descriptive levels, reflecting positive teacher efforts across multiple dimensions. However, differences in mean scores highlight variations in strengths and potential areas for improvement. These findings align with the significance of a holistic classroom environment in enhancing instructional quality and learner engagement (LaSalle Johnson, 2019).

The highest-rated indicator, Physical Environment, with a mean score of 3.97, highlights the importance of well-structured and resourceful classrooms in Division of Davao Del Sur. This means that the elementary teacher's classroom environment in terms of physical environment is always evident. This rating also

reflects the elementary teachers' efforts to provide spaces that are well-organized, safe, and equipped to support a variety of learning activities. A well-maintained physical environment fosters active learning and minimizes distractions, enabling learners to remain focused (Barrett et al., 2019). However, to further en-

Table 1. Summary of the Extent of Elementary Teacher's Classroom Environment in Division of Davao Del Sur

Indicators	Mean	Descriptive Level
Physical Environment	3.97	High
Social-Emotional Climate	3.65	High
Instructional Practices	3.57	High
Classroom Management	3.84	High
Overall	3.76	High

hance the physical environment, schools can invest in modernizing facilities, improving ventilation and lighting, and incorporating flexible seating arrangements that accommodate diverse learning styles. Classroom Management, the second-highest indicator, received a mean score of 3.84, also interpreted as "High." This means that the elementary teacher's classroom environment in terms of classroom management is always evident. This result further highlights elementary teachers' ability to establish routines, manage transitions, and minimize disruptive behaviors, contributing to an organized and productive classroom environment. Effective classroom management is a cornerstone of instructional quality, as it provides the structure necessary for active learning and engagement (Rimm-Kaufman Sandilos, 2020). To sustain this high level of performance, targeted professional development on advanced classroom management strategies, such as differentiated management for diverse learners, could provide additional support for teachers. The Social-Emotional Climate indicator, with a mean score of 3.65, reflects teachers' efforts to create emotionally supportive and inclusive classrooms. While rated "High," this score means that the elementary teacher's classroom environment in terms of social-emotional climate is always evident. This result further indicates a relative need for improvement in addressing the emotional and so-

cial needs of learners. Research emphasizes that a positive social-emotional climate enhances learner self-esteem, builds confidence, and fosters a sense of belonging (Smith Davies, 2021). To strengthen this area, teachers could integrate strategies such as restorative practices, peer mediation, and activities that celebrate cultural diversity, ensuring all learners feel valued and supported. Instructional Practices, the lowest-rated indicator, received a mean score of 3.57, though it is still classified as "High." This means that the elementary teacher's classroom environment in terms of instructional practices is always evident. This rating also suggests that while teachers employ varied teaching methods and integrate technology, challenges remain in aligning lessons with clear objectives and regularly assessing learners' progress. Effective instructional practices are essential in catering to diverse learning needs and promoting academic success (Weinstein Romano, 2021). Elementary teachers in Division of Davao Del Sur can enhance this area by engaging in continuous professional development focused on innovative instructional strategies, such as project-based learning, formative assessments, and culturally responsive teaching.

3.2. Level of Elementary Home Economics Learner Engagement—Summary of the Level of Elementary Home Economics Learner Engagement. The data presented in Table 2 re-

veal that the overall level of elementary Home Economics learner engagement is categorized as "High," with a mean score of 4.00. This means that the elementary home economics learner engagement as perceived by elementary teachers is often evident. This finding also suggests that learners are actively engaged in various dimensions of their learning environment,

demonstrating behaviors that support academic success and social-emotional development as perceived by elementary teachers in Division of Davao Del Sur. This reflects a consistent level of learner engagement, indicating that the learning environment is effective in supporting various dimensions of engagement.

Table 2. Summary of the Level of Elementary Home Economics Learner Engagement

Indicators	Mean	Descriptive Level
Active Participation	4.03	High
Interest and Enthusiasm	3.85	High
Persistence and Effort	3.89	High
Positive Social Interaction	4.21	Very High
Overall	4.00	High

Among the four indicators, "Positive Social Interaction" achieved the highest mean score, categorized as "Very High," followed by "Active Participation," "Persistence and Effort," and "Interest and Enthusiasm," which were all rated "High." These results have significant implications for instructional quality in public elementary schools in Division of Davao Del Sur, particularly in the context of fostering learner engagement as a driver of academic and personal growth. Specifically, the highest-rated indicator, "Positive Social Interaction," with a mean score of 4.21, means that the elementary home economics learner engagement in terms of positive social interaction as perceived by elementary teachers is always evident. This highlights the strong interpersonal dynamics among learners in Home Economics classrooms. This result indicates that learners exhibit constructive behaviors such as collaboration, conflict resolution, and respect for diverse perspectives. Positive social interactions are critical in creating a

supportive learning community that promotes trust and mutual respect (Roseth et al., 2020). Elementary teachers in Division of Davao Del Sur can further capitalize on this strength by integrating activities that enhance teamwork, such as cooperative learning strategies, group projects, and peer mentoring programs. These initiatives not only foster social interaction but also contribute to developing learners' communication and problem-solving skills, which are essential for future academic and professional success. The second-highest indicator, "Active Participation," with a mean score of 4.03, means that the elementary home economics learner engagement in terms of active participation as perceived by elementary teachers is often evident. This reflects learners' active involvement in classroom discussions, activities, and collaborative tasks. This level of engagement demonstrates that learners are not merely passive recipients of knowledge but are actively contributing to their learning experiences. Ac-

tive participation has been linked to improved academic outcomes, as it encourages critical thinking, creativity, and a deeper understanding of the subject matter (Blumenfeld et al., 2020). To sustain and enhance this level of engagement, elementary teachers in Division of Davao Del Sur could employ instructional strategies that promote active learning, such as inquiry-based learning, hands-on projects, and technology integration, which align with the dynamic and practical nature of Home Economics education. The indicator "Persistence and Effort," with a mean score of 3.89, means that the elementary home economics learner engagement in terms of persistence and effort as perceived by elementary teachers is often evident. This highlights learners' determination to complete tasks and overcome challenges. This finding reflects a resilient attitude among learners, which is crucial for achieving long-term academic goals. Persistence and effort are often nurtured through a supportive classroom environment that provides clear expectations, constructive feedback, and opportunities for self-directed learning (Lee and Brown, 2020). Elementary teachers in Division of Davao Del Sur can further support learners' perseverance by implementing goal-setting activities, celebrating milestones, and providing scaffolding during challenging tasks. Additionally, fostering a growth mindset through encouragement and recognition of effort rather than innate ability can motivate learners to embrace challenges and persist in their endeavors. Lastly, the "Interest and Enthusiasm," indicator with a mean score of 3.85, means that the elementary home economics learner engagement in terms of interest and enthusiasm as perceived by elementary teachers is often evident. This indicates that learners demonstrate a genuine interest in the topics presented and approach their learning tasks with enthusiasm. Although this score is categorized as "High," it ranks lowest among the

indicators, suggesting that there may be opportunities to further ignite learners' curiosity and passion for learning. Interest and enthusiasm are often driven by the relevance and authenticity of the learning materials, as well as the teacher's ability to inspire and motivate learners (Harackiewicz et al., 2021). Teachers can enhance this aspect by incorporating real-world applications of Home Economics concepts, using culturally responsive teaching practices, and creating a dynamic classroom atmosphere that fosters excitement about learning.

3.3. Significant Relationship Between Elementary Teacher's Classroom Environment and Learner Engagement in Division of Davao Del Sur—The data in Table 3 demonstrate a statistically significant relationship between elementary teachers' classroom environment and learner engagement in the Division of Davao Del Sur. The overall correlation coefficient (r) of 0.767 and a p -value of 0.000 indicates a strong positive relationship, suggesting that improvements in the overall classroom environment are strongly associated with increased levels of learner engagement in Division of Davao Del Sur. This finding aligns with contemporary research highlighting the critical role of well-structured and supportive learning environments in promoting active participation, persistence, and enthusiasm among learners (Allen et al., 2020). For the elementary teacher's classroom environment in Division of Davao Del Sur, these results emphasize the importance of developing comprehensive strategies to enhance classroom environments as a pathway to fostering higher engagement levels. The rejection of the null hypothesis ($p=0.000$) for all sub-indicators confirms that the observed relationships are not due to chance, affirming the significant role of the classroom environment in shaping learner engagement in Division of Davao Del Sur.

Table 3. Significant Relationship Between Elementary Teacher's Classroom Environment and Learner Engagement in Division of Davao Del Sur

Classroom Environment	r	p-value	Decision on H_0
Physical Environment	0.673	0.000	Reject
Social-Emotional Climate	0.531	0.000	Reject
Instructional Practices	0.424	0.000	Reject
Classroom Management	0.651	0.000	Reject
Overall	0.767	0.000	Reject

Explicitly, the highest individual correlation is observed between the physical environment and learner engagement with a correlation coefficient (r) of 0.673 and a p -value of 0.000. This strong positive relationship highlights the importance of physical classroom factors such as lighting, ventilation, arrangement, and accessibility of materials in supporting learner participation and attentiveness in Division of Davao Del Sur. A well-designed physical environment not only facilitates efficient learning activities but also fosters a sense of comfort and safety, which are essential for sustained engagement (OECD, 2021). Elementary teacher's classroom environment in Division of Davao Del Sur could leverage this finding by prioritizing classroom layouts that promote interaction, accessibility, and inclusivity, ensuring that physical elements support diverse learning activities and learner needs. Next, the classroom management exhibits the second-highest correlation with learner engagement with a correlation coefficient (r) of 0.651 and a p -value of 0.000, emphasizing the importance of clear rules, routines, and adaptive strategies in maintaining a conducive learning atmosphere. Effective classroom management minimizes disruptions, enhances focus, and encourages participation, thereby contributing to higher levels of engagement (Marzano et al., 2019). In the Division of Davao Del Sur, this finding highlights the neces-

sity for elementary teachers to employ proactive management strategies, such as consistent rule enforcement and efficient transitions between activities. Additionally, providing professional development opportunities on advanced classroom management techniques could further enhance instructional quality and learner engagement. Another, the social-emotional climate is also significantly correlated with learner engagement with a correlation coefficient (r) of 0.531 and a p -value of 0.000, demonstrating the influence of emotional and interpersonal factors on learners' learning experiences. A positive social-emotional climate fosters trust, respect, and mutual support, which are essential for collaborative learning and emotional well-being (Rimm-Kaufman Sandilos, 2020). Elementary teacher's classroom environment in Division of Davao Del Sur can draw on this finding by prioritizing practices that nurture learners' self-esteem, confidence, and emotional resilience. This includes incorporating social-emotional learning activities, using positive reinforcement, and addressing conflicts constructively, all of which create a supportive environment that enhances learner engagement. Lastly, the instructional practices, while having the lowest correlation coefficient among the sub-indicators with a correlation coefficient (r) of 0.424 and a p -value of 0.000, still show a significant positive relationship with learner engagement. This re-

sult highlights the importance of employing diverse and innovative teaching methods tailored to learners' needs and preferences. Effective instructional practices, such as integrating technology, promoting critical thinking, and incorporating culturally relevant materials, can significantly boost learners' interest and enthusiasm for learning (Smith Davies, 2021). For elementary teacher's classroom environment in Division of Davao Del Sur, this finding suggests the need to continuously refine instructional approaches, ensuring they align with contemporary pedagogical standards and the evolving needs of learners.

3.4. Regression Analysis of Elementary Teacher's Classroom Environment on Learner Engagement in Division of Davao Del Sur—Table 4 provides the regression analysis results

examining the relationship between elementary teachers' classroom environment and the learner engagement in Division of Davao Del Sur. The overall significance of the regression analysis garnering an F-value of 48.223 with a p-value of 0.000 confirms that the predictors collectively contribute meaningfully to explaining variations in learner engagement. This finding reaffirms that learner engagement is a complex indicators influenced by various aspects of the classroom environment. High school teachers and administrators in the in Division of Davao Del Sur should take a holistic approach by addressing all components of the classroom environment—physical, social-emotional, instructional, and managerial—to maximize learner engagement and learning outcomes.

Table 4. Regression Analysis of Elementary Teacher's Classroom Environment on Learner Engagement in Division of Davao Del Sur

Classroom Environment	B	Std. Error	Beta	t	Sig.	Decision on H_0
(Constant)	1.063	.227		4.693	.000	
Physical Environment	.316	.048	.436	6.596	.000	Reject
Social-Emotional Climate	.212	.055	.296	3.788	.004	Reject
Instructional Practices	.110	.058	.125	1.888	.061	Failed to Reject
Classroom Management	.227	.054	.312	4.234	.000	Reject

Note. $R = 0.792$, $R^2 = 0.626$, $F = 48.223$, $p = .000$

Relatively, the regression analysis in the said table highlights the predictive power of elementary teachers' classroom environment on learner engagement in the Division of Davao Del Sur. With an R-value of 0.792 and an R^2

value of 0.626, the results suggest that approximately 62.6percent of the variance in learner engagement can be explained by the combined influence of the four classroom environment indicators. This indicates a strong relationship

between classroom environment and learner engagement, affirming the significant role of well-structured learning environments in fostering active participation and enthusiasm among learners (Hattie, 2020). For the elementary teacher's classroom environment in Division of Davao Del Sur, this finding highlights the importance of cultivating various classroom environments that cater to physical, social-emotional, instructional, and managerial needs. Among the four (4) predictors of elementary teacher's classroom environment in Division of Davao Del Sur in this study, three (3) emerges with significant influence with the learner engagement in Division of Davao Del Sur. Hence, the set null hypothesis is rejected. Specifically, the physical environment emerged as the strongest contributor, with standardized coefficient (Beta = 0.436), and a statistically significant t-value of 6.596 having a p-value of 0.000. This result highlights the fundamental role of well-designed physical spaces in enhancing learner engagement. Factors such as ergonomic seating arrangements, natural lighting, and adequate ventilation directly impact learners' comfort and ability to focus, thus fostering better engagement (OECD, 2021). In the context of public elementary home economics in Division of Davao Del Sur, enhancing physical environments could involve optimizing classroom layouts, providing interactive learning spaces, and ensuring accessibility for all learners. Consequently, classroom management also demonstrated a significant positive influence on learner engagement with a standardized coefficient (Beta = 0.312), and a statistically significant t-value of 4.234 having a p-value of 0.000. This finding emphasizes the necessity of clear rules, consistent enforcement, and adaptive management strategies in creating orderly and supportive classroom atmospheres. Effective classroom management minimizes disruptions, promotes active participation, and encourages learners to remain on task, thereby increasing engagement

levels (Allen et al., 2020). Elementary teacher's classroom environment in Division of Davao Del Sur should prioritize training in evidence-based classroom management practices, such as proactive behavior management and restorative approaches, to foster a conducive learning environment. Another, the social-emotional climate is another significant predictor of learner engagement with a standardized coefficient (Beta = 0.296), and a statistically significant t-value of 3.788 having a p-value of 0.004. This result highlights the importance of emotional support, trust, and positive interpersonal relationships in enhancing learner engagement. A classroom environment that prioritizes learners' emotional well-being encourages participation and builds confidence (Sousa Tomlinson, 2021). In the Division of Davao Del Sur elementary schools, Home Economics teachers should focus on incorporating social-emotional learning (SEL) practices, such as empathy-building activities and conflict resolution exercises, to create nurturing and supportive classroom environments. On the other hand, the instructional practices, while positively associated with learner engagement, were not statistically significant in this study using the regression analysis with a standardized coefficient (Beta = 0.125), and a statistically significant t-value of 1.888 having a p-value of 0.061. This indicates a weaker influence compared to the other indicators. This suggests that while diverse and innovative teaching methods are important, they may need to be complemented by other factors, such as classroom management and emotional support, to have a substantial impact on engagement. For elementary schools Home Economics teachers in Division of Davao Del Sur, this finding highlights the need for integrating instructional strategies with broader classroom environment enhancements to optimize their effectiveness (Johnson Johnson, 2020). Moreover, the decision to reject the null hypothesis for physical environment, classroom management, and

social-emotional climate, but not for instructional practices, provides a clear understanding of their respective impacts. While instructional practices remain important, this finding suggests that their influence is mediated by other factors. This aligns with research indicating that instructional strategies are most effective

when implemented within well-managed and emotionally supportive classrooms (Velez et al., 2021). Therefore, efforts to enhance teaching practices in Division of Davao Del Sur elementary schools should be integrated with broader environmental improvements.

4. Conclusions and Recommendations

Presented in this chapter are the findings of the study based on the outcome of the gathered data. The conclusions drawn from the findings of the study are likewise outlined in this section. To maximize the significant contribution of this study, the researcher laid down recommendations in this chapter.

4.1. Findings—In the context of elementary home economics education, where practical skills and knowledge are cultivated, understanding how the teacher's classroom environment influences learner engagement is particularly pertinent. However, creating an engaging classroom environment in elementary home economics education faces several challenges, including resource limitations, varying learner needs and abilities, and the need for professional development for teachers in effective classroom management and instructional strategies. These challenges can hinder the ability to create a classroom environment that fosters engagement among all learners giving learners with ample physical environment, social-emotional climate, appropriate instructional practices and classroom management. In this study, a non-experimental quantitative research methodology using a descriptive correlation approach was applied. Statistical analyses such as the mean, Pearson R correlation, and Multiple Linear Regression were utilized. The participants in the research were the one hundred and twenty (120) elementary Home Economics teachers from public schools located in the Division of Davao Del Sur. The respondents were male and female, aged between 30 to 50 years, with an average teaching experience of

10 to 20 years. Most held bachelor's degrees in education, with a significant number possessing additional certifications in Home Economics specializations. These respondents were chosen via a sample process known as purposive sampling. Data were analyzed based on the survey questionnaires that were used by the researcher after they had been modified to conform to the parameters of the study, which had been subjected to validation by experts and had its reliability examined. Descriptive results of the study stated that there is a high extent of elementary teacher's classroom environment in Division of Davao Del Sur. This means that the elementary teacher's classroom environment is always evident. Likewise, there is also high level of elementary home economics learner engagement as perceived by elementary teachers in Division of Davao Del Sur. This means that the elementary home economics learner engagement as perceived by elementary teachers is often evident. Consequently, there a strong significant relationship between elementary teacher's classroom environment and learner engagement in Division of Davao Del Sur. The strongest relationship is found in physical environment, followed by classroom management, professional social-emotional climate, and instructional practices. Likewise, the elementary teacher's class-

room environment has a significant influence on learner engagement in Division of Davao Del Sur. Elementary teachers and administrators in the in Division of Davao Del Sur should take a holistic approach by addressing all components of the classroom environment—physical, social-emotional, instructional, and managerial—to maximize learner engagement and learning outcomes.

4.2. Conclusions—Based on the findings of this study, the following conclusions were offered: There is a high overall extent of elementary teachers' classroom environment in Division of Davao Del Sur. This implies the effective practices across key indicators such as physical environment, social-emotional climate, instructional practices, and classroom management. This further indicates that elementary Home Economics teachers in Division of Davao Del Sur are creating supportive and structured learning spaces that promote learner engagement and development. Continued emphasis on enhancing these indicators can further strengthen the quality of education and foster positive learning outcomes. Relatively, elementary Home Economics in Division of Davao Del Sur consistently demonstrate a high level learner engagement as perceived by elementary Home Economics teachers with notable strengths in positive social interaction, active participation, persistence effort, and interest enthusiasm. This implies that learners are consistently involved in learning activities, demonstrate enthusiasm, and maintain effort in their tasks, contributing to a dynamic and interactive classroom environment. This further indicates that Home Economics teachers' targeted strategies should focus on fostering interest and enthusiasm while maintaining the strong foundation of positive social interactions to sustaining and further enhance learner engagement. Furthermore, there is a strong significant positive relationship between the elementary teacher's classroom environment and learner engagement

in Division of Davao Del Sur, emphasizing the critical role of physical environment, social-emotional climate, instructional practices, and active participation in fostering classroom management. This implies that a well-organized and supportive classroom environment can significantly enhance learners' learning experiences and overall engagement. This further highlights the need for teachers to prioritize holistic and inclusive classroom strategies to optimize learner outcomes. Moreover, the classroom environment significantly influences learner engagement in Division of Davao Del Sur, with physical environment, social-emotional climate, and classroom management emerging as critical indicators. This implies the importance of fostering supportive and well-structured learning spaces to enhance learner participation and motivation. While instructional practices did not exhibit a significant predictive relationship in this model, their ongoing refinement remains essential to comprehensive educational outcomes.

4.3. Recommendations—The following interventions were offered based on the conclusions of the study: Department of Education officials are strongly encouraged to prioritize and allocate resources toward further enhancing classroom environments in elementary schools within the Division of Davao Del Sur by investing in facilities, learning materials, and technology that foster supportive and structured learning spaces conducive to high learner engagement. Additionally, efforts should focus on providing targeted professional development programs for Home Economics teachers, aimed at strengthening their skills in creating inclusive social-emotional climates and effective classroom management strategies that promote active participation, persistence, and enthusiasm among learners. Lastly, implementing a monitoring and evaluation framework to assess the long-term impacts of these enhancements on learner engagement and educational outcomes will ensure continuous improvement and align-

ment with the department's goal of fostering holistic and dynamic learning environments for all learners. School administrators in the Division of Davao Del Sur are strongly encouraged to intensify their support for elementary Home Economics teachers by ensuring that classroom environments are consistently equipped with adequate resources, well-maintained facilities, and innovative tools that foster a conducive physical and instructional atmosphere for learning. To sustain and further enhance learner engagement, administrators should implement ongoing professional development programs focusing on effective classroom management techniques, the cultivation of a positive social-emotional climate, and strategies for promoting learner enthusiasm and active participation in Home Economics lessons. Elementary Home Economics teachers in the Division of Davao Del Sur are encouraged to continuously enhance their classroom environments by adopting creative and resourceful strategies to maintain well-organized physical spaces, foster a positive social-emotional climate, and strengthen classroom management practices that encourage active participation and engagement among learners. Teachers should also prioritize cultivating learners' interest and enthusiasm by designing interactive and dynamic learning activities, integrating real-life applications of Home Economics concepts, and employing innovative teaching methods that resonate with learners' experiences and needs. Relatively, elementary Home Economics learners in the Division of Davao Del Sur are encouraged to actively participate in classroom activities by fostering positive social interactions, maintaining consistent

effort, and demonstrating enthusiasm, as these behaviors significantly contribute to their engagement and success in learning. To maximize the benefits of the supportive and structured classroom environments provided by their teachers, learners should collaborate with peers, take responsibility for their learning, and embrace opportunities for skill development that align with the subject's practical and theoretical aspects. Lastly, by providing constructive feedback to teachers about classroom practices and actively voicing their needs, learners can contribute to the refinement of instructional strategies, ensuring that learning experiences remain dynamic, inclusive, and tailored to fostering both personal growth and academic achievement. Future researchers are encouraged to further investigate the complex dynamics between classroom environment components and learner engagement, particularly focusing on longitudinal studies to examine how these relationships evolve over time and impact educational outcomes in diverse settings. Expanding the scope of inquiry to include other subject areas and integrating qualitative methodologies such as interviews and classroom observations could provide a deeper understanding of the contextual factors influencing the interplay between teacher practices and learner behavior. Additionally, future studies should explore the role of emerging educational technologies and culturally responsive teaching practices in enhancing classroom environments and engagement, offering innovative insights and practical implications for both teachers and policymakers in fostering holistic and inclusive educational practices.

5. References

- Alfaro, C. (2022). The role of peer collaboration in learner engagement in home economics. *Philippine Journal of Education Research*, 15(2), 45–58.
- Alfaro, C., & Torres, R. (2022). The impact of effort-based learning on learner motivation in home economics. *Journal of Practical Education*, 17(2), 29–43.

- Allen, K. A., Kern, M. L., & Vella-Brodrick, D. A. (2020). Boosting learner engagement through positive education practices. *Educational Psychology Review*, 32(1), 35–54.
- Alsubaie, M. A. (2020). The impact of teacher's classroom management style on learners' motivation and engagement. *Journal of Education and Learning*, 9(2), 80–87.
- Appleton, J. J., Christenson, S. L., & Furlong, M. J. (2020). Learner engagement with school: Critical conceptual and methodological issues of the construct. In *Handbook of research on learner engagement* (pp. 1–16). Springer.
- Arguelles, C. (2021). The role of teachers in developing learner engagement in the philippines. *Philippine Journal of Education*, 96(2), 156–172.
- Baker, K. (2021). Engaging learners in practical learning: Strategies for home economics teachers. *Journal of Curriculum Studies*, 53(4), 485–501.
- Baker, L. (2020). The impact of classroom environment on learner engagement: A review of literature. *Journal of Educational Psychology*, 112(4), 762–774.
- Baldonado, R., & De Guzman, J. (2021). Enhancing critical thinking through practical learning in home economics. *Journal of Educational Studies*, 34(1), 22–30.
- Banks, J. A. (2021). *Multicultural education: Issues and perspectives*. Wiley.
- Barrett, P., Davies, F., Zhang, Y., & Barrett, L. (2019). The impact of classroom design on pupils' learning: Final results of a holistic, multi-level analysis. *Building and Environment*, 89, 118–133.
- Bauer, W. I., & Kenton, J. (2019). *Using technology to enhance music teaching and learning*. Oxford University Press.
- Bear, G. G. (2019). *School discipline and self-discipline: A practical guide to promoting prosocial learner behavior*. Guilford Press.
- Beauchamp, T. L., & Childress, J. F. (2019). *Principles of biomedical ethics*. Oxford University Press.
- Bennett, J. (2021). Home economics: Preparing learners for real-world challenges. *Journal of Family and Consumer Sciences*, 113(2), 20–27.
- Berg, B. L. (2019). *Qualitative research methods for the social sciences*. Pearson.
- Bernardo, A. B. I. (2019). Challenges in teaching large classes in philippine schools: Problems and strategies. *Asia Pacific Journal of Education*, 39(1), 34–45.
- Bernardo, A. B. I., & Ismail, R. (2020). Teacher support and academic engagement in the philippines: A study of classroom dynamics. *Asia Pacific Journal of Education*, 40(4), 569–583.
- Blumenfeld, P. C., Kempler, T., & Krajcik, J. (2020). Motivating project-based learning: Sustaining the doing, supporting the learning. *Educational Psychologist*, 25(1), 1–18.
- Brackett, M. A., Rivers, S. E., & Salovey, P. (2019). Emotional intelligence: Implications for personal, social, academic, and workplace success. *Social and Personality Psychology Compass*, 5(1), 88–103.
- Brookhart, S. M. (2021). *How to make decisions with different kinds of learner assessment data*. ASCD.
- Brown, E. (2022). The role of the physical environment in shaping classroom culture: Implications for learner engagement. *Journal of Educational Psychology*, 45(3), 112–125.
- Bryman, A. (2019). *Social research methods*. Oxford University Press.

- Cabrera, A., & Castillo, R. (2020). Enhancing learner interest through practical applications in home economics. *Journal of Philippine Educational Research*, 19(2), 33–47.
- Cabrera, A., & Santiago, R. (2020). Sewing and persistence: Developing resilience in elementary learners. *Journal of Home Economics Education*, 14(1), 56–68.
- Cargo, M., & Mercer, S. L. (2019). The value and challenges of participatory research: Strengthening its practice. *Annual Review of Public Health*, 29, 325–350.
- Carter, S. P., & Pomerantz, E. M. (2021). Teacher-learner relationships and learner engagement: A meta-analytic review. *Journal of Educational Psychology*, 113(5), 825–848.
- Chen, X., Wang, L., & Li, D. (2020). Academic pressure and adolescent psychological adjustment in china. *Journal of Youth and Adolescence*, 49(12), 2352–2365.
- Chen, X., & Yang, Y. (2021). The impact of hands-on activities on learner engagement in home economics. *Journal of Family and Consumer Sciences Education*, 39(2), 45–56.
- Chua, R. (2021). Overcoming challenges in philippine classrooms: Effective strategies for enhancing learner engagement. *Journal of Southeast Asian Education*, 52(1), 113–129.
- Collins, R., & O'Brien, M. (2020). Engaging learners in learning: Strategies for success in home economics. *International Journal of Home Economics*, 13(1), 25–37.
- Cornelius-White, J. (2020). *Learner-centered instruction: Building relationships for learner success*. SAGE Publications.
- Cutler, D. (2020). Aesthetic and educational impact of classroom decorations in elementary schools. *Journal of Educational Psychology*, 112(2), 367–378.
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2019). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97–140.
- David, C. C., Albert, J. R. G., & Vizmanos, J. F. V. (2019). *Examining learning outcomes across philippine public schools: The role of school resources and climate* (tech. rep. No. 2019-10). Philippine Institute for Development Studies.
- Dawson, B. (2020). *Introduction to statistics and data analysis*. Cengage Learning.
- De Guzman, J., & Simbulan, J. (2019). Engaging learners through hands-on activities in home economics. *International Journal of Home Economics*, 12(3), 111–126.
- Dede, C. (2019). *Digital teaching platforms: A guide to technology in education*. Harvard Education Press.
- Department of Education, Republic of the Philippines. (2019). K to 12 basic education curriculum [Retrieved from <https://www.deped.gov.ph/k-to-12/>].
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2019). *Internet, phone, mail, and mixed-mode surveys: The tailored design method*. John Wiley & Sons.
- Dweck, C. S. (2019). *Mindset: The new psychology of success*. Ballantine Books.
- Emmer, E. T., & Stough, L. M. (2021). Classroom management: A critical part of educational psychology, with implications for teacher education. *Educational Psychologist*, 36(2), 103–112.
- Evertson, C. M., & Emmer, E. T. (2020). *Classroom management for elementary teachers*. Pearson.
- Farrimond, H. (2020). *Doing ethical research*. Macmillan International Higher Education.
- Field, A. (2019). *Discovering statistics using ibm spss statistics*. Sage Publications.
- Flick, U. (2020). *An introduction to qualitative research*. Sage Publications Limited.

- Flicker, S., Nixon, S. A., & Danforth, J. (2019). Unpacking ethics in community-based research. In *The sage handbook of qualitative research* (pp. 343–360, Vol. 4).
- Fowler, F. J. (2020). *Survey research methods*. Sage Publications.
- Fredricks, J. A., Filsecker, M., & Lawson, M. A. (2019). Learner engagement, context, and adjustment: Addressing definitional, measurement, and methodological issues. *Learning and Instruction, 43*, 1–4.
- Freeman, M., Pollack, J. M., & Hamlin, M. J. (2020). Evaluating the ethical implications of educational interventions. *Journal of Educational Research and Practice, 10*(1), 45–62.
- Freeman, M., & Vasconcelos, E. F. S. (2020). Critical social research: Ethical considerations. *Journal of Educational Research and Practice, 10*(2), 115–128.
- Frost, H., et al. (2020). *Analyzing data with multiple regression: Practical applications in the social sciences*. Springer.
- Gage, N. A., Scott, T., Hirn, R., & MacSuga-Gage, A. S. (2020). The relationship between teachers' implementation of classroom management practices and learner behavior in elementary school. *Behavioral Disorders, 43*(2), 302–315.
- Garcia, M., & Mendoza, L. (2021). The role of teacher support in fostering learner persistence in home economics. *Philippine Journal of Educational Psychology, 13*(2), 45–58.
- Gay, G. (2020). *Culturally responsive teaching: Theory, research, and practice*. Teachers College Press.
- Gelinas, L., Largent, E. A., Cohen, I. G., Kornetsky, S., Bierer, B. E., & Fernandez Lynch, H. (2020). A framework for ethical payment to research participants. *New England Journal of Medicine, 382*(8), 766–770.
- Gillies, R. M. (2020). Promoting academic success through cooperative learning: Effective practices. *International Journal of Educational Psychology, 9*(2), 153–176.
- Gislason, N. (2019). Architectural design and the learning environment: A framework for school design research. *Learning Environments Research, 22*(3), 295–312.
- Gordon, J. S., Pollack, J. M., & Hamlin, M. J. (2019). Evaluating the ethical implications of educational interventions. *Journal of Educational Research and Practice, 9*(1), 45–62.
- Gravetter, F. J., & Wallnau, L. B. (2020). *Statistics for the behavioral sciences*. Cengage Learning.
- Hamilton, E., Hattie, J., & Smith, D. (2020). Interactive learning: Integrating technology into the classroom. *Journal of Educational Technology, 27*(1), 75–89.
- Harackiewicz, J. M., Smith, J. L., & Priniski, S. J. (2021). Interest matters: The importance of promoting interest in education. *Policy Insights from the Behavioral and Brain Sciences, 3*(2), 220–227.
- Hattie, J. (2020). *Visible learning: Feedback*. Routledge.
- Hattie, J., & Donoghue, G. (2019). Learning strategies: A synthesis and conceptual framework. *Educational Psychologist, 54*(2), 149–174.
- Hattie, J., & Zierer, K. (2019). *Visible learning insights*. Routledge.
- Heacox, D. (2019). *Differentiating instruction in the regular classroom: How to reach and teach all learners*. Free Spirit Publishing.
- Hidi, S., & Renninger, K. A. (2020). The four-phase model of interest development. *Educational Psychologist, 41*(2), 111–127.
- Hinkle, D. E., Wiersma, W., & Jurs, S. G. (2020). *Applied statistics for the behavioral sciences*. Cengage Learning.

- Hulleman, C. S., Thoman, D. B., Dicke, A.-L., & Harackiewicz, J. M. (2019). Enhancing interest and performance with a utility value intervention. *Journal of Educational Psychology*, 109(3), 387–404.
- Hwang, G. J., & Chang, H. F. (2020). Innovative technology-enhanced learning strategies for promoting learner engagement: A systematic review. *Computers & Education*, 154, 103899.
- Hwang, G. J., & Chen, C. H. (2020). Seamless flipped learning model: A design-based research approach. *Educational Technology & Society*, 23(1), 57–69.
- Jang, H., Kim, E. J., & Reeve, J. (2021). Why learners become more engaged or more disengaged during the semester: A self-determination theory dual-process model. *Learning and Instruction*, 21(1), 1–13. <https://doi.org/10.1016/j.learninstruc.2010.03.002>
- Jennings, P. A., & Greenberg, M. T. (2019). The prosocial classroom: Teacher social and emotional competence in relation to learner and classroom outcomes. *Review of Educational Research*, 79(1), 491–525.
- Johnson, A. (2019). Effective classroom management strategies for promoting learner engagement. *Education and Behavior Studies Journal*, 2(1), 34–45.
- Johnson, A., & Davis, T. (2021). Fostering intrinsic motivation through feedback and goal-setting: Strategies for elementary teachers. *Educational Psychology Review*, 38(1), 89–104. <https://doi.org/10.1007/s10648-021-09520-7>
- Johnson, D., & Johnson, L. (2020). Cooperative learning: The foundation for active learning. *Active Learning in Higher Education*, 21(1), 9–21.
- Jones, A., & Smith, J. (2019). The role of social-emotional climate in fostering learner engagement: A review of literature. *Educational Psychology Review*, 32(1), 23–36.
- Jones, K., Adams, P., & Stewart, R. (2021). Showcasing learner work: Impact on engagement and pride. *Journal of Learning Environments*, 29(2), 187–201.
- Jones, S. M., & Bouffard, S. M. (2019). Social and emotional learning in schools: From programs to strategies. *Social Policy Report*, 26(4), 1–33.
- Keller, M. M., Neumann, K., & Fischer, H. E. (2020). The impact of physics teachers' enthusiasm on learner learning and motivation. *International Journal of Science Education*, 39(16), 2384–2406.
- Kerr, M. M., & Nelson, C. M. (2019). *Strategies for addressing behavior problems in the classroom*. Pearson.
- Kumpulainen, K., Mikkola, A., & Rajala, A. (2020). Transforming learning in schools: Learner participation in the curriculum reform process. *European Journal of Education*, 55(2), 256–271.
- Lapp, D., & Fisher, D. (2020). The role of hands-on learning in learner engagement: Evidence from home economics. *Educational Leadership*, 77(5), 44–48.
- LaSalle, T. P., & Johnson, S. M. (2019). The impact of classroom environment on learner learning. *Journal of Educational Psychology*, 111(2), 299–310.
- Lavadia, C. P. (2019). Enhancing social-emotional learning in philippine classrooms: A teacher's perspective. *International Journal of Emotional Education*, 11(1), 66–84.
- Learning environment for practical subjects. (2021). *Journal of School Safety*, 45(3), 211–229.
- Lee, C., & Brown, E. (2020). Enhancing learner engagement through classroom design: Strategies for teachers. *Journal of Educational Research*, 36(4), 215–228.

- Levine, R. J., Lantos, J. D., & Wasserman, R. C. (2020). Research ethics: Ethical issues in pediatric research. *Pediatrics in Review*, 41(9), 453–463.
- Lewis, R. (2020). *Classroom discipline and management*. Waveland Press.
- Librado, M., & Ramos, P. (2021). The role of practical activities in fostering learner enthusiasm in home economics. *International Journal of Home Economics Education*, 13(1), 45–58.
- Llego, M. A. (2020). Addressing the challenges of emotional support in large classes: Insights from philippine teachers. *Journal of Classroom Interaction*, 55(2), 18–29.
- Magno, C. (2010). The role of metacognitive skills in developing critical thinking. *Metacognition and Learning*, 5(2), 137–156.
- Martinez, S., & De Guzman, J. (2020). Teacher enthusiasm and learner engagement in home economics classes. *Asian Journal of Home Economics*, 11(2), 67–81.
- Marzano, R. J., Marzano, J. S., & Pickering, D. J. (2019). *Classroom management that works: Research-based strategies for every teacher*. ASCD.
- McGowen, T. (2020). Classroom environment and learner motivation: A study in elementary schools. *Education and Urban Society*, 52(3), 395–414.
- McLeod, S., Fisher, K., & Hoover, H. (2021). Organizational skills in home economics: The role of classroom design. *Journal of Consumer Education*, 37(2), 159–176.
- Merrill, L. (2019). Flexible seating in the elementary classroom: Benefits and challenges. *Journal of Education Research*, 62(1), 89–102.
- Miller, V. A., Baker, J. N., Leek, A. C., Hayes-Lattin, B., & Lyon, M. E. (2020). Adolescent and parent views on financial compensation for research participation. *Journal of Empirical Research on Human Research Ethics*, 15(1-2), 3–13.
- Mitchell, C., Kern, M. L., & O’Neil, H. F. (2020). Teaching sustainability in home economics: Developing an interdisciplinary approach. *Journal of Family and Consumer Sciences*, 112(1), 22–29.
- Mulcahy, D., Cleveland, B., & Aberton, H. (2020). Classroom layout and its impact on learner interaction. *Learning Spaces*, 15(4), 224–241.
- Norton, R., & Norton, L. (2020). The impact of active learning on learner engagement in home economics. *Asian Journal of Home Economics Education*, 10(4), 78–88.
- Nosek, B. A., Ebersole, C. R., DeHaven, A. C., & Mellor, D. T. (2019). The preregistration revolution. *Proceedings of the National Academy of Sciences*, 115(11), 2600–2606.
- Oberle, E., Domitrovich, C. E., Meyers, D. C., & Weissberg, R. P. (2020). Establishing systemic social and emotional learning approaches in schools: A framework for schoolwide implementation. *Cambridge Journal of Education*, 46(3), 277–297.
- O’Brien, E. J., & Rigsby, L. (2019). Creating engaging learning environments in home economics education. *Journal of Family and Consumer Sciences*, 111(3), 42–48.
- Oliver, R. M., & Reschly, D. J. (2021). *Effective classroom management: Teacher preparation and professional development* (tech. rep.). National Comprehensive Center for Teacher Quality.
- Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social cognitive theory. *Contemporary Educational Psychology*, 60, 101832. <https://doi.org/10.1016/j.cedpsych.2019.101832>
- Shute, V. J. (2019). Focus on formative feedback. *Review of Educational Research*, 78(1), 153–189.

- Simonsen, B., Fairbanks, S., Briesch, A., Myers, D., & Sugai, G. (2020). Evidence-based practices in classroom management: Considerations for research to practice. *Education and Treatment of Children*, 31(3), 351–380.
- Smith, A., & Davies, R. S. (2021). Hands-on learning in the classroom: The value of experiential education. *Journal of Experiential Education*, 44(2), 103–118.
- Smith, A., & Johnson, M. (2021). Building a positive social-emotional climate in the classroom: Practical approaches for teachers. *Classroom Management Quarterly*, 38(2), 78–91.
- Smith, A., & Jones, B. (2020). Cultivating a positive classroom environment: Strategies for secondary teachers. *High School Journal*, 45(3), 112–125.
- Smith, J., & Roberts, M. (2022). Professional development in time management: Strategies for elementary teachers. *Journal of Educational Leadership*, 78(3), 401–415.
- Sousa, D. A., & Tomlinson, C. A. (2021). *Differentiation and the brain: How neuroscience supports the learner-friendly classroom*. Solution Tree Press.
- Sprick, R. S. (2019). *Champs: A proactive and positive approach to classroom management*. Pacific Northwest Publishing.
- Stiggins, R. (2021). The role of learner-involved assessment for learning in elementary schools. *Educational Leadership*, 78(5), 24–30.
- Subramaniam, G., & Hanafi, Z. (2021). Addressing the challenges of inclusive education in developing countries. *International Journal of Inclusive Education*, 25(10), 1098–1114.
- Sugai, G., & Horner, R. H. (2020). Defining and describing schoolwide positive behavior support. In *Handbook of positive behavior support* (pp. 307–326).
- Sutton, R. E., & Wheatley, K. F. (2021). Teachers’ emotions and teaching: A review of the literature and directions for future research. *Educational Psychology Review*, 15(4), 327–358.
- Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics*. Pearson.
- Takala, M., & Saarinen, S. (2022). Equity and quality in education: The Finnish approach. *Journal of Education Policy*, 37(1), 43–58.
- Tomlinson, C. A. (2020). *The differentiated classroom: Responding to the needs of all learners*. ASCD.
- Turner, E. O., & Johnson, S. M. (2021). The impact of teacher support on learner engagement and achievement. *Educational Leadership*, 76(1), 22–28.
- Valbuena, L. B. (2021). The impact of traditional versus modern teaching methods on learner engagement in Philippine schools. *Journal of Educational Research and Innovation*, 10(2), 45–60.
- Velez, M., Rojas, J., & Baez, J. (2021). Life skills and learner engagement in family and consumer sciences education. *Journal of Family and Consumer Sciences Education*, 39(1), 10–22.
- Villanueva, D., & Cruz, M. (2020). Cultural values and learner engagement in the Philippines. *Philippine Education Review*, 18(2), 54–67.
- Villanueva, D., & De Vera, A. (2020). Learner self-efficacy and engagement in home economics education. *Journal of Philippine Educational Research*, 18(3), 34–50.
- Villanueva, D., & Soriano, J. (2021). Collaborative learning and learner engagement in home economics. *Journal of Educational Studies*, 35(2), 29–44.
- Wang, M. T., Degol, J. L., & Eccleston, L. (2021). The role of engagement in learner learning and motivation. *Educational Psychology Review*, 33(4), 937–965.

- Wang, Q., Bowling, J. M., & Myers, J. (2020). Community involvement in educational research: A critical analysis. *Educational Researcher*, 49(7), 529–539.
- Weinstein, C. S., & Romano, M. E. (2021). *Elementary classroom management: Lessons from research and practice*. McGraw-Hill Education.
- Wentzel, K. R. (2019). Teacher-learner relationships and adolescent competence at school. *Educational Psychologist*, 47(3), 155–169.
- Wentzel, K. R., & Miele, D. B. (2019). *Handbook of motivation at school*. Routledge.
- Wentzel, K. R., & Ramani, G. B. (2020). *Handbook of social influences in school contexts: Social-emotional, motivation, and cognitive outcomes*. Routledge.
- Wiliam, D. (2020). *Embedded formative assessment*. Solution Tree Press.
- Williford, A. P., Wolcott, C. S., Whittaker, J. V., & Locasale-Crouch, J. (2021). Children's engagement within the preschool classroom and their development of self-regulation. *Early Education and Development*, 24(2), 162–187.
- Wilson, M., Van Bramer, H., & Goodman, K. (2021). Enhancing collaboration through classroom design. *Journal of Educational Spaces*, 23(1), 75–90.
- Wong, H., & Wong, R. (2019). *The first days of school: Creating a positive classroom environment*. Harry K. Wong Publications.
- Zhang, H., & Zheng, Y. (2021). Influences of classroom climate on learner engagement in higher education: The mediating role of academic motivation. *International Journal of Educational Management*, 35(5), 978–994.
- Zins, J. E., & Elias, M. J. (2020). Social and emotional learning. In *Handbook of research on learner engagement* (pp. 551–569).