



Exploring the Impact of Individual and Group Activities on Critical Thinking Skills Development in College of Education Students

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Abstract— This study investigates the influence of individual and group activities on the development of critical thinking skills among College of Education students at Central Luzon State University. Grounded in theories of experiential and social learning, the research explores how distinct activity formats contribute to critical thinking by promoting skills such as self-reliance, creativity, collaborative problem-solving, and cognitive flexibility. Utilizing a qualitative methodology, data was collected through focus groups, interviews, and participant observation, revealing unique impacts of both individual and group activities. Individual tasks fostered autonomy, deeper analysis, and confidence, while group activities facilitated knowledge-sharing and perspective-taking. However, challenges in maintaining cognitive depth during group tasks were noted. Findings suggest that a balanced integration of individual and collaborative activities may optimally enhance critical thinking, offering insights into educational strategies that support holistic cognitive skill development. This study contributes to understanding instructional approaches that best prepare students for complex problem-solving in academic and professional contexts.

Keywords— skill development, college students, group activities, university.

1. INTRODUCTION

Activities serve as a transformative medium in education, enabling students to convert acquired knowledge and skills into tangible outputs that reinforce self-confidence and self-efficacy. This experiential learning process plays a crucial role in student development, fostering both personal and academic growth by engaging students actively in the learning process. According to Dewey's theory of experiential learning, students achieve a deeper understanding when they interact with their environment through hands-on activities, making experiential learning fundamental to effective educational practices (Dewey, 1938).

Individual and group activities each offer distinct, yet complementary, benefits. Individual activities promote autonomy, critical thinking, and accountability, as students are required to independently tackle tasks, thereby deepening their cognitive engagement and fostering problem-solving abilities (Varthana, 2023). Vygotsky's (1978) theory on the Zone of Proximal Development supports this, suggesting that independent tasks encourage students to operate within their optimal learning range, pushing them to self-regulate and internalize new information. Moreover, individual tasks cultivate a sense of accomplishment as students rely on their initiative and perseverance (University College Cork, 2016).



On the other hand, group activities are essential for building teamwork, communication, and interpersonal skills. By participating in group tasks, students learn to exchange ideas, negotiate roles, and work collaboratively to solve problems, thus enhancing their social competence and readiness for real-world teamwork (Johnson & Johnson, 2009). This collaborative process aligns with Bandura's (1986) social learning theory, which posits that interaction with peers facilitates observational learning and skill acquisition in social contexts. As Sutton (2021) states, engaging in a balanced mix of individual and group activities equips students with a well-rounded skill set critical for both academic and professional success.

Critical thinking is an educational cornerstone supported by both individual and group activities. Defined as the ability to analyze, evaluate, and synthesize information for reasoned judgment (Facione, 2011), critical thinking involves a broad spectrum of cognitive skills. Individual tasks help develop higher-order thinking skills by prompting students to analyze and reflect independently, a process that aligns with Bloom's revised taxonomy of educational objectives, which categorizes cognitive skills from Lower Order Thinking Skills (LOTS) such as remembering and understanding, to Higher Order Thinking Skills (HOTS) like analyzing, evaluating, and creating (Anderson & Krathwohl, 2001). Group activities, meanwhile, offer a platform for students to test their reasoning skills in a social setting, prompting them to defend or reconsider their perspectives through collective discussions and peer feedback (Gillies, 2016).

Assessing critical thinking often requires a nuanced approach to distinguish between LOTS and HOTS. Evaluations such as exams, quizzes, and practical activities can gauge the depth of students' cognitive engagement and their ability to move beyond rote learning to synthesis and application (Brookhart, 2010).

This study seeks to investigate the comparative impact of individual and group activities on the critical thinking abilities of College of Education (CED) students. Specifically, it aims to evaluate which activity format is more effective in fostering critical thinking, as well as to measure the overall efficacy of these approaches in promoting essential cognitive skills. By analyzing these dynamics, the study hopes to contribute insights into instructional methods that best support the development of critical thinking, a skill central to academic achievement and lifelong learning.

Students participate in various activities within the academic setting, both done individually and in group. Working individually means tackling tasks alone, while group work involves collaborating with peers, sharing ideas and opinions.

These different activities offer unique opportunities to develop critical thinking skills, each with its own strengths. This study aims to explore how individual activities compare to group activities in enhancing critical thinking among CED students.

By examining how these activities influence critical thinking skills, the researcher hope to determine which approach—individual or group—better promotes critical thinking in the field of education.



The study aims to gather reliable information from participants to better address the researcher's questions. Specifically, within the broader theme, the researcher aims to:

1. Determine the effects of individual activities and group activities on the critical thinking of CED students.
2. Assess how individual and group activities contribute to enhancing critical thinking among CED students.
3. Differentiate between the effectiveness of individual activities and group activities in enriching critical thinking among CED students.

2. METHODOLOGY

Research Design

This study utilized a qualitative research design, specifically selected for its ability to explore and explain complex phenomena by delving into participants' perspectives, motivations, and underlying reasoning. The choice of a qualitative approach was motivated by the study's aim to gain in-depth insights into the experiences and viewpoints of participants regarding the effectiveness of individual and group activities in developing critical thinking skills among College of Education (CED) students. Qualitative research is particularly well-suited for exploring "how" and "why" questions, offering a rich, nuanced understanding that can lead to the formulation of ideas or hypotheses for subsequent quantitative investigation (Creswell, 2014).

Data collection methods included focus groups, in-depth individual interviews, and participant observation, as described by Wyse (2011). Focus groups allowed for interactive discussions among participants, providing insights into shared experiences and collective views. Individual interviews offered a more private environment, encouraging participants to express personal opinions and motivations in detail. Participant observation enabled the researcher to gain a first-hand understanding of participant dynamics and behaviors within both individual and group activity settings (Denzin & Lincoln, 2018).

The research aims to produce findings that not only address the effectiveness of individual versus group activities in fostering critical thinking but also contribute to a deeper understanding of how these methods can be integrated into educational practice. The study's outcomes are anticipated to inform strategies for instructional design that support critical thinking development, offering potential frameworks for further quantitative analysis in diverse educational contexts.

Participants of the study

The participants in this study were drawn from the College of Education at Central Luzon State University, specifically selected for their insight into the impact of individual and group activities on critical thinking. A total of 15 students voluntarily participated, each contributing their perspectives through structured responses to questions prepared by the researcher.

The study primarily investigates how individual and group activities influence the development of critical thinking skills among these students. By exploring participants' experiences and views, the research seeks to understand



the effectiveness of each activity format, determine their impact on critical thinking, and identify which approach may be more conducive to fostering these skills. Conducted at Central Luzon State University, the study invited participation from students enrolled in the College of Education during the 2017–2018 academic year, ensuring relevance to the curriculum and learning environment of that period.

This targeted approach allows for in-depth exploration of the participants' educational experiences, contributing valuable insights into how activity structure may shape cognitive skills crucial to academic and professional success.

Research Instrument

The primary tool used to gather necessary data for the research was a researcher-designed questionnaire. This set of questions was employed during semi-structured interviews to fulfill the objectives of the study.

Enhancement of Critical Thinking through Individual Activities:

1. What individual activities have you engaged in, either within or outside the classroom?
2. In your opinion, are individual activities significant to you? Please elaborate on your reasoning.
3. How do individual activities influence your critical thinking?
4. Have you found that individual activities enhance your critical thinking? If so, in what ways?

Enhancement of Critical Thinking through Group Activities:

1. Can you recall any group activities you've participated in, either within or outside the classroom?
2. From your perspective, do group activities hold importance for you? Why or why not?
3. How do group activities impact your critical thinking abilities?
4. Have you noticed that group activities contribute to enhancing your critical thinking? If yes, how?

Comparison of Critical Thinking Enhancement between Individual and Group Activities:

1. Which type of activity do you generally prefer, individual or group, and why?
2. In your experience, which type of activity tends to yield better outcomes: individual or group? Please explain.
3. From your perspective, which type of activity—individual or group—has been more effective in enhancing your critical thinking skills? Kindly elaborate on your reasoning.

Data Gathering Procedure

This study was conducted at Central Luzon State University, specifically targeting students within the College of Education. A total of 15 students participated, all of whom volunteered to share their perspectives on the effectiveness of individual and group activities in enhancing critical thinking skills.



To collect data, the researcher distributed questionnaires designed to elicit detailed responses from the participants. These questionnaires were structured to address key aspects of the study, focusing on the perceived impact of individual and group activities on critical thinking development among College of Education students. Upon completion, the researcher collected and analyzed the responses to uncover patterns and insights relevant to the research questions. During data analysis, participants' responses were transcribed into a scripted format, allowing for precise capture of their insights, perceptions, and expressed ideas.

This transcription process enabled the researcher to identify recurring themes and common viewpoints within the data, which helped in drawing connections between participant feedback and the core research objectives. Finally, the researcher synthesized the findings, aligning them with the initial research questions and providing a comprehensive discussion and conclusion based on the results.

3. RESULTS AND DISCUSSION

The aim of the study was to assess the effectiveness of individual and group activities in enhancing critical thinking skills among CED students. In this chapter, the findings are presented and discussed with reference to this aim.

3.1 Individual Activities and Enhancement of Critical Thinking

Table 1. Effects of Individual Activities on Critical Thinking

Theme	Description
Learns to stands on own feet	Participants acquired self-sufficiency and independence while making decisions and taking actions apart from external control.
Ability to manage time	By focusing on tasks and carrying them out effectively, participants increased their achievement of objectives and decreased anxiety levels through improved time management.
Boosts self-esteem	The increase in individuals' belief in themselves and their feelings of importance stimulated their ability to persevere and remain cheerfully expectant concerning the things they wished to achieve.
Enhances artistic ability	Participants explored new methods to enhance their creative output which led to innovation and skill development.
Enriches thinking skill	Participants were described to have improved their critical thinking abilities, which resulted in a growth in intelligence due to thorough understanding and careful analysis.

In exploring the theme of learning to stand on your own feet, the participants highlighted the development of independence through individual activities. Their response indicated a notable shift towards autonomous decision-making and action, emphasizing the newfound ability to handle tasks without relying on external influence.



"Mas natututo akong maging independent at hindi kailangan umasa sa ibang tao para magawa yung naka assign na task sa akin."

Participant 5

This suggests that such activities foster a sense of self-reliance among participants, a crucial aspect of personal and professional development. This suggests that engaging in individual classroom activities can foster a sense of self-reliance among participants.

According to Murawski (2014) this is important for personal and professional development, as it allows individuals to take control of their lives, make independent decisions, and navigate challenges with confidence. Developing self-reliance is not only essential for personal growth but also crucial for success in various aspects of life, including careers, relationships, and overall well-being

The theme related to time management underscored the improvement in time management skills resulting from individual activities.

"Mas napapakita natin yung time management natin doon sa mga pinapagawa."

Participant 7

Although the participant didn't directly address their impact on critical thinking, the emphasis on effective time management implies a correlation between organizational skills and cognitive processes. This suggests that mastering time management through these activities may indirectly contribute to enhancing critical thinking abilities (Jovanovic, 2020).

In the context of boosting self-esteem, one participant mentioned experiencing a boost in self-esteem as a result of engaging in individual activities.

"It can boost my self-esteem."

Participant 2

"I have more confidence when I study alone."

Participant 6

While Participants 2 and 6 didn't elaborate on their relationship with critical thinking, the acknowledgment of heightened self-assurance suggests a potential positive impact on cognitive processes. This implies that building confidence through individual activities may foster a mindset conducive to more robust critical thinking.

Turning to the theme of enhancing creativity, Participants 4, 9, and 12 highlighted the creative benefits of individual activities. Their accounts which emphasized the expansion of artistic skills and imagination is parallel to the study of Sager (2023), indicating a broader impact beyond traditional cognitive functions.



"Mas ma eenhance natin yung pagiging creative natin sa individual activities."

Participant 4

"Nagiging malawak 'yong mga imagination and 'yong pagiging creative mo is mas maexercise."

Participant 9

"Marami akong nalalaman katulad ng mga idedesign mo kung ano 'yong dapat naidesign mo, 'yong parang sa'yo lang nanggaling 'yong idea ganun."

Participant 12

While not explicitly linked to critical thinking, the development of creativity through these activities may indirectly contribute to a more flexible and innovative approach to problem-solving.

Lastly, the theme of enriching thinking skills emerged prominently from the responses of multiple participants. Nine out of the 15 participants identified enhancements in their thinking skills through individual activities. Their testimonies emphasized deeper analysis, improved critical thinking, and expanded knowledge acquisition.

"Mas nakakapa- isip ako nang mas malalim at mas mabuti."

Participant 1

"It will help to improve my critical thinking in the development of skills."

Participant 3

"Mas lumalalim yung pag-iisip ko without help ng iba ganun parang mas may deeper understanding ako ganun."

Participant 5

"Kasi nga critical thinking so kailangan mo talagang mag-isip."

Participant 7

"Mas napapalawak yung knowledge mo kapag mag-isa mo lang na ginagawa yung activities tapos madami kang nalalaman na ano mga information."

Participant 8

"Nagkakaroon ako ng pang-unawa na mas malalim na pag-iisip kung papaano ako dapat gumawa ng desisyon sa mga critical na bagay-bagay."

Participant 10

"Magiging matatas yung isip mo pa yung pag-iisip mo is magiging malalim pa at saka yung pang-unawa."

Participant 11

"Mas napapalawak 'yong insights ko dahil sa mga 'yon and naiimprove or gumagana iyong aking utak."

Participant 13

"Naenhance nito yung iba't iba kong abilidad. Naiaapply ko yung reasoning skill ko through writing essays mga ganun."

Participant 15



Hajhosseini (2016) agreed that engaging in critical thinking deepens understanding and enhances cognitive abilities by prompting thorough analysis, effective decision-making, and widened perspectives. This process improves reasoning skills and fosters intellectual growth.

Individual classroom activities can foster a sense of self-reliance, which is crucial for personal and professional growth. These activities can also indirectly contribute to the development of critical thinking skills, as participants reported enhancements in their thinking skills, emphasizing deeper analysis, improved critical thinking, and expanded knowledge acquisition. Additionally, engaging in individual activities can boost self-esteem and confidence, which may contribute to a more robust mindset conducive to critical thinking. Creative benefits, such as the expansion of artistic skills and imagination, may also foster a flexible approach to problem-solving. Overall, the findings suggest that individual activities can have multifaceted benefits for cognitive development and intellectual growth.

Table 2. Effects of Group Activities on Critical Thinking

Theme	Description
Inability to think deeply	This reflects a lack of capacity to engage in deep thinking or analysis during group activities.
Ability to comprehend	This theme involves the ability to grasp and understand complex concepts, based on a well-developed knowledge foundation relative to the individual's developmental level.
Partaking of Ideas	This refers to the sharing and contribution of ideas within a group setting, where each member contributes to a larger pool of collective knowledge or perspectives.

Table 2 reveals three key themes regarding the impact of group activities on critical thinking among participants. Firstly, the participants expressed concerns about group activities potentially hindering deep thinking. It was highlighted that is challenging to maintain profound analysis in such settings due to the presence of multiple voices.

"Hindi na sila nag-iisip ng ganoon kalalim kasi marami sila tas marami rin ang nag-iisip kaya 'yon."

Participant 3

"Minsan unfair kasi, kasi nga minsan mas nakakaunawa lang yung, yung ano mas nakakaunawa yung tinatanggap nilang sagot."

Participant 12

"Hindi ito masyadong nahahasa kasi wala nang malalimang isip."

Participant 15

The participants raised concerns that group activities could hinder deep thinking, Gratton (2010) stated that it can be difficult to maintain profound analysis when multiple voices are present, potentially leading to groupthink and



the suppression of creative and constructive evaluation of alternative ideas. On the other hand, several participants disagree with this line of thought and recognized group activities as beneficial for enhancing comprehension and critical thinking skills.

"Group activities help my critical thinking to deeply understand the topic."

Participant 8

"Lumalawak pa yung understanding ko pag may kasama akong nag-aaral."

Participant 14

The study Kristy (2022) emphasized how such activities deepen understanding and improve critical thinking. By participating in group activities, learners are likely to find opportunities to exchange ideas, challenge assumptions, and consider diverse perspectives, ultimately enhancing their overall cognitive abilities and analytical thinking capacities.

Moreover, participants highlighted the importance of partaking of ideas during group activities, which enriches knowledge acquisition. They acknowledged the value of listening to diverse opinions and sharing ideas within the group.

"Kapag nag-uusap usap kayo ng mga groupmates mo, makukuha mo na 'yong idea ng bawat isa by that mas marami kang matututunan."

Participant 3

These findings resonate with Gratton (2010) which claimed that group activities provide a basis for generating diverse ideas because group members can share and exchange their thoughts, which contributes to individual learning. This process allows students to learn from one another, develop critical thinking skills, and engage in constructive dialogue, ultimately improving their understanding of the subject matter.

The implications of these findings are that group activities can have both positive and negative effects on critical thinking. On one hand, group activities can hinder deep thinking due to the presence of multiple voices, potentially leading to groupthink and the suppression of creative and constructive evaluation of alternative ideas. However, on the other hand, group activities can be beneficial for enhancing comprehension and critical thinking skills by providing opportunities for learners to exchange ideas, challenge assumptions, and consider diverse perspectives, ultimately deepening understanding and improving overall cognitive abilities and analytical thinking capacities. Participants also highlighted the importance of listening to diverse opinions and sharing ideas within the group, which can enrich knowledge acquisition and foster intellectual growth.

3.2. Comparison of the Effects of Individual and Collaborative Activities on Critical Thinking

Both individual and group activities have unique benefits and challenges in enhancing critical thinking skills. Individual activities promote self-reliance, deeper analysis, and creativity, while group activities encourage



collaboration, diverse perspectives, and knowledge sharing. While individual activities may provide autonomy and flexibility, group activities offer opportunities for social learning and perspective-taking.

Therefore, a combination of both individual and group activities may be the most effective approach to foster comprehensive critical thinking skills among students. This approach allows students to benefit from the unique advantages of both individual and group activities, ultimately fostering a well-rounded critical thinking skill set.

4. CONCLUSION

Both individual and group activities can contribute to the development of critical thinking skills in different ways. Individual activities foster self-reliance, deeper analysis, and creativity, while group activities encourage collaboration, diverse perspectives, and knowledge sharing. A combination of both individual and group activities may be the most effective approach to foster comprehensive critical thinking skills among students, as it allows them to benefit from the unique advantages of both types of activities.

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