Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 58 Issue: 12:2025
DOI: 10.5281/zenodo.18052376

THE ADVANTAGES OF THE DISCUSSION METHOD: FOR BUILDING EFFECTIVE FOR THEORETICAL UNDERSTANDING IN STUDENTS PRIVATE COLLEGE MALANG, INDONESIA

NURCHOLIS SUNUYEKO*

Faculty of Social Science and Humanities, University Insan Budi Utomo, Malang East Java Indonesia. *Corresponding Author Email: nurcholissunuyeko@uibu.ac.id, ORCID: 0000-0002-9476-6714
Scopus ID: 57226156705

RIZKI AGUNG NOVARIYANTO

Faculty of Social Science and Humanities, University Insan Budi Utomo, Malang East Java Indonesia. Email: rizkiagungnovariyanto@uibu.ac.id, SINTA ID : 6115508

MUKAROM

Faculty of Social Science and Humanities, University of Insan Budi Utomo, Malang East Java Indonesia. Email: rommukarom@gmail.com

ROCHSUN

Faculty of Science and Sports Education, University Insan Budi Utomo, Malang East Java Indonesia.
Email: sptrochsun@gmail.com, ORCID: 0009-0005-5766-1795

TITIK PURWATI

Program Studi Pendidikan Ekonomi, University Insan Budi Utomo, Malang East Java Indonesia.
Email: titikpurwati@uibu.ac.id, ORCID: 0000-0002-9918-1336, Scopus ID: 58486333300

Abstract

This study emphasizes that an effective discussion requires more than simply breaking into groups and chatting; it necessitates preparation. This preparatory phase usually involves exploring the topic (subject area) that will be discussed. Participants should be organized into groups, with roles assigned (such as chairperson, note-taker, regular members, and observers). Clear instructional goals for the discussion need to be established. The desired learning outcomes must be identified. The specific issue to be addressed in the discussion should be explicitly stated and explained. Materials need to be prepared and given to the participants. An agenda should be created that addresses all necessary points for problem-solving. The room setup, including seating arrangements, the whiteboard, and other needed tools, should be organized. In this context, reinforcement strategies are utilized to promote active engagement from participants. It is essential to foster a supportive atmosphere, helping individuals feel valued, cared for, and included, thereby fostering a sense of responsibility and ownership. A scientific discussion focuses not on criticizing faults, weaknesses, or deficiencies, nor on marginalizing anyone. Instead, the aim is to uncover the root cause of the issue, propose solutions, discuss them, and arrive at a scientific understanding based on theory and its implications.

Keywords: Discussion Method, Building Understanding, Effective Theory.

INTRODUCTION

The core of effective education lies in the dynamic synergy between structured pedagogical guidance delivered by instructors and the proactive cognitive engagement undertaken by students. This student engagement is fundamentally bolstered by an array

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 58 Issue: 12:2025
DOI: 10.5281/zenodo.18052376

of interactions: collaborative exchanges among peers, direct dialogues between educators and learners, and critical immersion with diverse learning materials. Through these interwoven connections, the primary aim is to empower students to actively synthesize and internalize understanding, fostering an educational experience that is not only highly interactive but also profoundly inspiring, genuinely enjoyable, suitably challenging, and intrinsically motivating, thereby culminating in the proficient acquisition of desired capabilities. Furthermore, the very framework of learning must exhibit rapid adaptability, proactively integrating breakthroughs in information, scientific discovery, and technological innovation. This agility is imperative to guarantee that educational programs consistently maintain acute relevance, accurately addressing both the immediate circumstances and the evolving demands of tomorrow's world.

Algeria opted for digital pedagogical methods, utilizing virtual tools such as video conferencing, email, and online chats, to address contemporary educational demands and foster student-teacher connectivity. However, the absence of adequate foresight and the necessary infrastructure to support this instructional shift, particularly in the realm of distance learning, negatively impacted the overall implementation. Educators found themselves scrambling to devise immediate strategies for transitioning in-person curriculum into a remote format, yet this critical window of opportunity was only partially capitalized upon (Hadji Abdelkader, 2025). Student-reported academic pressure carries significant implications for curriculum structuring, the provision of student support services, and the development of mental health interventions within healthcare education. This highlights the indispensable need for individualized, profile-based strategies to enhance student well-being (Sania Mohammed, 2025). A meticulously designed perception instrument was administered to a representative cohort of middle school students. The findings indicate that embedding cultural dimensions systematically into curriculum frameworks can significantly bolster student engagement and the relevance of educational content. This research further propels global educational initiatives that champion pluralistic and equitable pedagogical approaches, presenting a foundational paradigm for re-envisioning mathematics instruction (Vivek & Nagaraju, 2025). Among the array of verbal communication skills, discussion stands out as a prominent form.

It involves a collaborative oral exchange, typically guided by specific objectives and characteristics:

a. Purpose: To collectively seek and ascertain objective understanding or scientific accuracy.
b. Setting: While frequently conducted in structured, formal environments, informal discussions can also take place in more relaxed contexts.
c. Participants: It brings together groups striving to refine and enhance the quality of shared information or understanding.
d. Timing: It is generally conducted within a pre-determined timeframe.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 58 Issue: 12:2025
DOI: 10.5281/zenodo.18052376

e. Resources: It often necessitates appropriate facilities and equipment, commensurate with the scope and depth of the exchange.

At its core, engaging in discussion is an inherent human approach to addressing and resolving problems (Ahmad S. Cecep, 2013). This process intrinsically demands proficient oral communication abilities. Within the diverse cultural landscape of Indonesian society, this form of interaction manifests in myriad ways, deeply woven into the routine exchanges of everyday life (Bliuc and Piggott, 2011). A discussion group is fundamentally a collective of individuals, typically united by a common interest, who convene either formally or informally to deliberate ideas, collaboratively resolve issues, or offer feedback. These interactions can occur through various modalities, including in-person meetings, teleconferences, instant messaging, or digital communication platforms such as online forums (Hattie and Gregorym, 2016). Within these digital environments—be it forums, established mailing lists, newsgroups, or IRC channels—participants actively contribute by responding, posting comments, or submitting new content. Other group members possess the flexibility to reply using either written text or visual media (Alyousef, 2004). Furthermore, educational materials that integrate the 'Assitalliang' concept serve a dual purpose: they not only enrich the linguistic dimension of the learning process but also cultivate a deeply contextualized learning experience. This approach empowers students to comprehend and internalize local cultural values, encompassing principles like cooperation, mutual respect, solidarity, and overall social harmony (Wahyuddin et al., 2025).

Collaborative dialogue serves as a fundamental mechanism for cultivating students' analytical reasoning, especially when tackling novel challenges directly related to the curriculum. This pedagogical approach is specifically designed to empower learners to engage in deep intellectual inquiry, urging them to articulate their viewpoints with logical coherence and impartiality as they address problems. Ultimately, this method is anticipated to nurture greater self-reliance in students' cognitive processes and practical decision-making.

LITERATURE REVIEW

The term "discussion" possesses a rich linguistic heritage, tracing its origins to the Latin words "discussio," "discussi," or "discussum." As Hamdani noted in 2017, these ancient roots conceptually encompass thorough examination, focused conversation, and careful deliberation. In contemporary English, the word broadly refers to either a negotiation or a general conversational exchange. Khusnul (2016) highlights a distinct interpretation in Indonesian, where "diskusi" specifically denotes a collaborative process where two or more individuals exchange ideas on a particular problem to collectively achieve a goal.

Sanjaya (2006) further suggests that engaging in discussions is an intrinsic human endeavor, naturally undertaken as a means of problem-solving. This form of interaction inherently demands proficiency in oral communication. Trianto (2010) observed that within Indonesian cultural contexts, discussions manifest in diverse forms, frequently appearing as a routine component of everyday human discourse.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 58 Issue: 12:2025
DOI: 10.5281/zenodo.18052376

Mulyasa (2015) provides a detailed characterization of discussion activities, outlining several key attributes:

a. They often occur without a rigidly defined objective, serving instead to cultivate familiarity, broaden social connections, or simply occupy leisure time.

b. Their setting is highly adaptable, capable of taking place anywhere, irrespective of specific conditions or circumstances.

c. They operate within an indeterminate timeline, beginning and concluding without fixed duration limits.

d. Participation is entirely open, allowing anyone to engage with anyone else, without requiring specific classifications or a shared organizational direction.

e. Notably, they do not necessitate the use of specialized equipment or dedicated facilities.

These verbal interactions can involve a modest pair or a small group, yet their scale can expand significantly to include dozens, hundreds, or even thousands of participants. Such exchanges are not confined to formal environments but occur equally in informal settings. Ultimately, discussions exhibit a wide spectrum of structure: they can range from meticulously planned sessions adhering to explicit protocols to spontaneous conversational interactions driven by a specific, though perhaps unstated, purpose. Despite its varied manifestations, oral discourse maintains an underlying coherence, serving as a vehicle for generating diverse ideas that nonetheless converge on a singular, overarching objective. The true impetus behind this exchange is the pursuit of collective aspirations, rather than merely individual inclinations. This is achieved through dynamic conversational interplay, reciprocal inquiry, and the open exchange of viewpoints, where positions are substantiated with logical argumentation and compelling evidence. While dissenting viewpoints or the refutation of concepts may arise, the process also encompasses the provision of constructive feedback, including recommendations, critiques, and proposals. Furthermore, the articulation of comprehensive and granular information facilitates beneficial outcomes such as well-defined conclusions, shared understandings, or emergent alternative paradigms, all representing the fruit of communal intellect (Anwar, 2011). The Core Elements of Dialogue encompass the fundamental rules or principles guiding a discussion.

These guidelines consist of:

a) Steering clear of heated debates. A heated debate refers to a disagreement lacking substantial justification.

b) Disproving or dismissing another's viewpoint should be grounded in robust and persuasive arguments.

c) During discussions, each participant is required to actively contribute their ideas and opinions. It's quite common for individuals to express their opinions while others interject.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 58 Issue: 12:2025
DOI: 10.5281/zenodo.18052376

d) Avoiding the notion of a winner in a discussion; the aim is to reach a mutual agreement based on varied perspectives.

In essence, dialogue is a process involving two or more individuals who engage in verbal, face-to-face interaction. Discussing a particular goal or objective through information exchange, can also be employed for self-defense of an opinion or problem-solving (Nurdyansyah, 2016).

Among the advantages of the discussion method, as stated by Surachmad (1997), are:

1. Students have the chance to articulate and defend their ideas or thought patterns using rational arguments.
2. Each child gets the opportunity to develop their ideas regarding the problem they're facing.
3. Learning outcomes through discussion are functional because of the problem's nature and the discussion process.

RESEARCH METHOD

Type of Research

The methodological foundation of this investigation rests upon a descriptive research approach. This method is specifically designed to delineate the specific attributes and prevailing conditions of a given population or phenomenon, with the express purpose of generating an exhaustive portrayal of the subject under scrutiny. Such an inquiry mechanism is instrumental in illuminating the inherent processes and dynamics active within the scope of the study (Suharsimi, 2012).

A fundamental prerequisite for the application of descriptive research is that the proposed research problem or inquiry must be genuinely amenable to this specific methodological framework. This is due to the inherent specialized nature of the descriptive paradigm, rendering it unsuitable for universal application across all scholarly investigations, and thus precluding its arbitrary selection by researchers driven solely by curiosity. Consequently, a critical initial step involves rigorously assessing the validity and appropriateness of the problem formulation. Given that not every subject matter lends itself effectively to descriptive methodologies, the conceptualization of the research problem must concurrently possess substantive scientific significance and coherence (Sugiyono, 2015).

Research Model

This research of employed a form of classroom action research (CAR). The progression of activities within this CAR adhered strictly to the established guidelines of the Kemmis and McTaggart model, a framework particularly pertinent to the pedagogical challenges and instructional practices encountered by university lecturers. The overarching objective of this undertaking was to elevate and refine the practical application of effective teaching methodologies by lecturers. This was achieved through encouraging proactive

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 58 Issue: 12:2025
DOI: 10.5281/zenodo.18052376

experimentation with various alternative strategies aimed at improving learning services, thereby emphasizing hands-on intervention and direct impact on student experience, rather than primarily focusing on the acquisition of theoretical educational knowledge meant for broad generalization.

Research Object

This pedagogical intervention, structured as action research, was carried out across various private higher education institutions within the city of Malang. The investigation proceeded in two distinct phases or cycles.

The initial phase, commencing on January 20, 2024, centered on the creation and study of local environmental maps (specifically at district, city, or provincial levels). The second phase, which began on April 29, 2024, continued to explore the identical theme. Each of these cycles rigorously followed a standard four-stage methodology: design, implementation, monitoring, and critical analysis.

A key objective of the observation efforts was to ascertain the efficacy of employing discussion-based strategies in enhancing both student academic achievement and the overall quality of classroom discourse. To ensure the reliability and validity of the findings, the researcher utilized a range of data collection tools, specifically including structured observation protocols and visual documentation through photography.

This entire Classroom Action Research was situated in the aforementioned Malangan private educational context.

The study cohort comprised 150 students, with a demographic breakdown of 72 males and 78 females.

Data for this investigation was gathered through the application of two primary methods:

1. Learning Outcome Assessment: An evaluative test was utilized to gauge student achievement, administered at the culmination of each instructional cycle.
2. Systematic Observation: Both the researcher's pedagogical practices and the students' behaviors were observed systematically during each instructional period. This observational data was captured using a pre-formatted log sheet, specifically devised by the researcher to track and analyze the investigator's conduct and actions throughout the learning activities.

Research Stages

The methodological framework for this research unfolded through the following sequential phases:

1. Pre-intervention: This initial phase commenced with the researcher conducting a thorough assessment of the existing learning environment. This observational data served as the foundational input for designing the reflective action plan specific to Cycle I. A preliminary evaluation, functioning as a pre-test, was also administered

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 58 Issue: 12:2025
DOI: 10.5281/zenodo.18052376

during this stage. Its dual purpose was to ascertain participants' initial competencies and facilitate their equitable assignment into study groups.

2. Design and Preparation: The second phase, dedicated to Design and Preparation, involved the meticulous development of various instructional components. This included crafting detailed learning scenarios, constructing comprehensive lesson plans, and devising specific observation instruments for both the educator and the learners to be utilized during the actual teaching and learning sessions. The instructional delivery within this planned framework was segmented into three distinct stages: a) Introductory Phase: This segment focused on preparing the learners. Key activities included the instructor providing initial motivational prompts, establishing links between the new material and the students' existing knowledge base, and clearly articulating the specific learning objectives for the session. b) Core Instruction Phase: This central segment involved a series of interactive and content-delivery activities led by the educator: i) The instructor thoroughly presented the relevant academic material. ii) Students were then organized into collaborative study groups. iii) Each group was afforded the opportunity to present their findings or work outcomes. iv) The instructor offered guidance and constructive feedback on the groups' presentations and results. v) Learners were encouraged to pose questions for clarification or deeper understanding. vi) Positive reinforcement, in the form of awards or verbal praise, was provided. c) Concluding Phase: This final segment comprised three key activities: i) The lecturer engaged students in verbal questioning to assess immediate recall and understanding of the material. ii) The instructor facilitated the collaborative development of conclusions by the students and reinforced the core concepts explored. iii) Comprehensive reinforcement was provided, serving as a summative evaluation of the learning achieved.
3. On-Action Monitoring: This phase involved continuous observation implemented throughout the active intervention. Its scope encompassed meticulously tracking the engagement and activities of both students and the educator during the learning process, while simultaneously evaluating the fidelity and effectiveness of the intervention's execution.
4. Reflective Analysis: Upon the completion of each action cycle, a comprehensive debriefing session was conducted collaboratively with the lecturer. The primary aim was to identify and analyze any challenges or shortcomings that emerged during the learning activities. The insights gained from these identified deficiencies then served as crucial input for informing and refining the planning of the subsequent research cycle.

Data Analysis

The essential components of qualitative data analysis include:

1. Information condensation, which refines data, categorizes it, streamlines its direction, eliminates superfluous details, and converts the data into tangible, meaningful insights.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 58 Issue: 12:2025
DOI: 10.5281/zenodo.18052376

2. Data structure, where the qualitative information is systematically organized into matrices or grids, enabling researchers to identify trends and formulate definitive conclusions.
3. Synthesis, a process of encapsulating the core findings from the structured data into concise, lucid, and coherent statements that distill the analysis to its most pertinent essence.

In descriptive research, establishing a suitable timeframe for observations is vital for achieving accuracy. As Creswell (2015) posits, "extending observation over time often illuminates the complexity or subtlety of an event or phenomenon."

The designated research period aims to strengthen the reliability and consistency of the study's outcomes. Therefore, it is imperative to collect data at the optimal moment.

RESULTS AND DISCUSSION

At its core, education conceptualizes learning as a deliberate effort to streamline and enhance the acquisition of knowledge for students.

Alternatively, it can be defined as the strategic delivery of information and the orchestration of activities specifically engineered to ensure students successfully achieve their predefined educational objectives. Within this pedagogical framework, learning occupies a pivotal and central position for both learners and instructors within the classroom environment.

The fundamental duty of educators is to impart knowledge and guide student development, a responsibility that broadly encompasses a comprehensive, three-stage approach:

1. Curriculum Design: Prior to the commencement of any classroom instruction, educators meticulously plan and strategize all instructional elements. This crucial preparatory phase ensures that every component is thoughtfully constructed to optimize the potential for student learning.
2. Instructional Delivery: Following the meticulous design, all planned activities are then implemented according to the established blueprint. This stage typically unfolds through an introductory segment, progresses into the core instructional body (often referred to as 'development activities'), and concludes with a summary or closing phase.
3. Performance Assessment: Finally, the educator's role extends to evaluating the entire learning endeavor, scrutinizing both the methodologies employed throughout the process and the ultimate outcomes achieved by the students.

Observational data reveals several key insights concerning instances where students actively participate in discussions within direct learning settings. These findings are comprehensively detailed in Table 1 below.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 58 Issue: 12:2025
DOI: 10.5281/zenodo.18052376

Table 1: Observation results "discussion method, building understanding, effective theory"

No	Activities	Engagement	Number Involved
1	apperception	Lead a conversation about the lecturer's topic, connecting it directly to scenarios or activities you personally understand.	Several student volunteers
2	Lecturer explanation	Offer your thoughts, suggestions, or ask clarifying questions about the content.	Several student volunteers
3	group discussion	Generate original ideas for the specific tasks or projects you are working on.	The student cohort is overwhelmingly present; however, a subset of these learners may become prone to inaction or unresponsiveness unless they are adequately guided and directed by their academic instructors.
4	Presentation of the results of group discussions	Provide support for, or dispute, the outcomes presented by your peer group.	Several student volunteers and a whole group of presenters
5	Closing	Summarize your key takeaways from the lesson when prompted by the lecturer.	Several student volunteers

Own elaboration, 2025

Direct observational findings are significantly augmented and enriched by insights gathered through qualitative interview techniques. Specifically, the interactive sessions conducted with the student cohort yielded pivotal information, comprehensively documented in Table 2. The pedagogical approach of discussion is a frequently employed strategy utilized by educators during classroom instruction. Its versatility allows for application across a diverse range of subject matters. Engaging in discursive activities has the potential to enhance student participation and cultivate greater intrinsic interest within the learning environment. However, implementing discussion-based methodologies specifically within reading instruction presents unique challenges, often proving more intricate than initially perceived. Indeed, a multitude of variables can influence students' enthusiasm and concentration during classroom engagement, including individual predispositions, the specific instructional process, and the prevailing classroom environment. An interview with the teacher revealed that their primary pedagogical method for collaborative learning was group discussion. Educators typically exhibit distinct approaches in structuring and facilitating these collaborative sessions, notably in aspects such as group composition, the number of participants per group, and the specific interactive techniques employed. Theoretical frameworks identify five prominent categories of group discussion: Jigsaw, Small Group Discussion, Cooperative Integrated Reading and Composition (CIRC), Make a Match, and Number Hand Together. Intriguingly, the current investigation indicates that the teacher's applied

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 58 Issue: 12:2025
DOI: 10.5281/zenodo.18052376

discussion technique does not align with any of these established reading discussion typologies. Consequently, the specific procedural steps adopted by the teacher during classroom discussions will serve as crucial data for the researcher to precisely categorize this unique discussion methodology.

Table 2: Interview Results "discussion method, building understanding, effective theory"

No	Question	Extracted Information
1	When to engage in learning discussions?	At the beginning, during learning activities or at the end of learning. Depending on the lecturer and the learning method used.
2	When is the dominant time for discussion?	When working in groups, because each student is involved in completing an assignment that requires each student to express their ideas so that the task can be completed in accordance with a predetermined deadline
3	When is the least dominant time in conducting discussions?	When explaining the material from the lecturer. Students must pay attention and some students must take notes on what the lecturer says. Opportunities for discussion only exist when students raise their hands to get additional explanations or when the lecturer gives students the opportunity to ask questions and express ideas about the material presented. In some cases, when the lecturer delivers material interactively, students get the opportunity to build knowledge by discussing between the lecturer and other students to gain a comprehensive understanding of the material being studied.
4	What is the motivation in conducting the discussion?	Feel involved in learning, get an active value that supports the final grade and avoid feeling bored while studying.
5	When do you feel motivated to engage in discussions?	When lecturers provide opportunities, are open to student ideas, appreciate every student idea, and are emotionally close to students. When you have emotional closeness with colleagues in the class so that you feel open and are not ashamed to express ideas.
6	What are the obstacles in the discussion	There were no opportunities given by the lecturers to come up with ideas, some lecturers even turned off student ideas and thought they were just busy and could not be managed.
7	When do you feel, you don't need to carry out discussions in the learning process?	There isn't any. It's just that you feel bored if learning is only filled with student discussions because the lecture material is not well received. Lecturers should explain and provide reinforcement after student discussions.

Own elaboration, 2025

The pedagogical practices embedded within a discursive learning methodology are recognized as inherently consistent with established process-oriented educational

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 58 Issue: 12:2025
DOI: 10.5281/zenodo.18052376

benchmarks. Effective instruction, indeed, ought to prioritize the very journey of learning – the educational process itself – as the primary objective for the student. Moreover, collaborative group interactions offer an invaluable arena for learners to hone their interpersonal and communicative capabilities, two proficiencies indispensable for successful engagement within society. In an academic setting, these peer dialogues function not merely as vehicles for solidifying comprehension of course material, but also as powerful agents for cultivating a collective ethos, fostering cooperative endeavors, and nurturing reciprocal regard among participants.

Table 3: Impact and results of the discussion method ““discussion method, building understanding, effective theory”

No	Informant	Responses or results obtained
1	Students Presentation Group	- Through discussions, we must study the material that will be presented during the discussion. If we don't study it, we will have difficulty conveying it well. - We can convey the material, but we are still limited to the material provided by the lecturer. Therefore, if there are difficult questions, we have difficulty providing answers. - We feel that this discussion method provides benefits because we have to study first. Another benefit is that we can understand the content of the material being discussed, although not completely due to our limited understanding and depth of the material. - We feel that there are many challenges faced by discussions in lectures, because the material being discussed must be mastered in order to be able to answer every question posed by our colleagues. - We also enjoy the discussion model in lectures, because the atmosphere in the classroom or lecture hall becomes lively and not boring.
2	Students Discussion participants	- Through this discussion, we can ask questions to our fellow presenters, allowing us and our colleagues to exchange ideas on the material discussed during the discussion. - Sometimes, the presenters' presentations are limited to the material provided by the lecturer, leaving us with many unknowns or unknowns. Therefore, we ask questions related to the material being discussed. Sometimes, the presenters also have difficulty providing answers due to unpreparedness or other reasons. - Discussions can be beneficial in exploring and developing skills, making it easier to understand the material. - During discussions, the presenters' ability to convey the material well and correctly is a challenge that must be overcome. Furthermore, their ability to master the material provides the foundation for providing answers to any questions posed. - We enjoy this discussion method because it creates a more lively and less boring atmosphere in the classroom.

Own elaboration, 2025

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 58 Issue: 12:2025
DOI: 10.5281/zenodo.18052376

From table 2 and 3, the criteria used to evaluate open classroom discussion are designed to measure a specific dimension of the learning environment believed to foster democratic ideals. These assessment metrics reflect several key areas: whether students regularly engage with political and social issues within their classrooms, the degree of encouragement they receive to formulate well-informed opinions during these exchanges, and the extent to which educators guide them in debating different perspectives.

The profound significance of open classroom discourse in shaping students' social and political dispositions has been thoroughly investigated. Much of this extensive inquiry draws upon empirical evidence amassed by the 1999 Civic Education Study (CIVED) and the 2009 International Civic and Citizenship Education Study (ICCS) (e.g., Barber et al. 2015; Campbell 2008; Caro and Schulz 2012; Godfrey and Grayman 2014; Schulz 2002; Schulz et al. 2010; Torney-Purta 2009).

Despite ongoing scholarly debate concerning the precise psychological or social mechanisms underlying its effects, these numerous investigations have consistently affirmed its foundational role. It serves as a crucial factor in fostering civic literacy, cultivating a constructive attitude towards political deliberation, and stimulating an inclination towards well-informed electoral participation.

Effective pedagogical discourse necessitates meticulous pre-planning of the instructional methodology to be implemented within educational settings. Curricular architecture, or learning design, encapsulates a structured approach to operationalizing core teaching and learning tenets into a cohesive framework for content delivery and engagement strategies.

Fundamentally, the endeavor of educating is inextricably linked to fostering students' maturation into adulthood. Mature individuals are distinguished by their cognitive sophistication, their capacity for emotional self-regulation, and their ability to ethically differentiate between commendable and undesirable actions.

Given that quantitative assessments of open classroom dialogue do not constitute a conventional measure of individual variation, unlike, for example, socioeconomic standing. The standard statistical models for analyzing compositional effects might lead to unwarranted overcompensation for inter-school differences. Consequently, customary recommendations for data standardization, such as centering individual and school-level mean scores to the overall average, are not uniformly applicable to these specific metrics and can negatively impact the integrity of the intended analytical conclusions.

Therefore, the integration of collaborative group discussions within classrooms serves not only to enhance student participation but also to cultivate desirable personal attributes. Nevertheless, while group discussions possess considerable potential for amplifying student involvement and proactivity, their practical implementation encounters a range of difficulties. A primary challenge lies in ensuring an equitable distribution of responsibilities among group members, thereby preventing any student from experiencing marginalization or exclusion from contributing to the collective effort.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 58 Issue: 12:2025
DOI: 10.5281/zenodo.18052376

CONCLUSION

The discussion method stands as a potent pedagogical instrument within the learning environment, functioning both as a core instructional resource and a bedrock for achieving educational objectives. This interactive approach also serves as a viable alternative for conveying subject matter. This form of collective inquiry is especially captivating within academic and learning contexts due to its inherent ability to generate dynamic, reciprocal exchanges among participants. To foster sustained and robust learner participation, implementing strategic facilitative techniques is highly recommended.

Key considerations during this ongoing management phase include:

1. Maintaining the participants' focus and interest in the core subject.
2. Crafting incisive questions that necessitate thoughtful responses and prompt individuals to articulate the rationale behind their viewpoints.
3. Resisting the urge to introduce new themes or concepts prematurely; ensure prior points are thoroughly explored and understood before advancing.
4. Establishing clear connections between emerging topics and previously covered material whenever feasible.
5. Regularly synthesizing and restating participants' contributions that bear direct relevance to the evolving dialogue.
6. Being prepared with pre-formulated comments or probing questions designed to re-energize or redirect the conversation should it falter or stray.

Educators frequently leverage guided discussions, particularly when delving into specific subject areas. It transforms subject delivery into a collaborative quest where students confront challenges and collaboratively explore diverse solutions. Through robust dialogue and the presentation of varied perspectives, the aim is to collectively arrive at a well-reasoned and appropriate conclusion, solidified by shared understanding and compelling argumentation.

Acknowledgments

This manuscript has not been published or submitted for consideration in any other venue. All participants gave their informed consent, and the study received approval from the ethics committee. We have adhered to the guidelines outlined by your journal and the study remains in compliance with all of them.

Reference

1) Ahmad S. Cecep. (2013). *The Effectiveness of Small Group Discussion Method* in Teaching Reading at Second Grade Students of one of Public Junior High School.

2) Alyousef, H.S. (2014). Teaching Reading Comprehension to ESL/EFL, Learners. *The Reading Matrix*, Vol.5, No.2. Retrieved October 24,

3) Anwar, Kasful & Hendra, Harmi. (2011). Learning System Planning [*Perencanaan Sistem Pembelajaran KTSP*]. Bandung: Alfabeta.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 58 Issue: 12:2025
DOI: 10.5281/zenodo.18052376

4) Barber, C., Sweetwood, S. O., & King, M. (2015). Creating classroom-level measures of citizenship education climate. Learning Environments Research, 18(2), 197–216. https://doi. org/10.1007/s10984-015-9180-7.

5) Bliuc, A., Ellis, R., Goodyear, P. and Piggott, L. (2011). A blended learning Approach to teaching foreign policy: Student experiences of learning through face-to-face and online discussion and their relationship to academic performance. *Computers \& Education*, 56(3), pp. 856–864.

6) Bradley, V. M. (2021). Learning Management System (LMS) Use with Online Instruction. *International Journal of Technology in Education*, 4(1), 68–92.

7) Campbell, D. E. (2008). Voice in the classroom: How an open classroom climate fosters political engagement among adolescents. Political Behavior, 30(4), 437–454. https://doi.org/10.1007/ s11109-008-9063-z.

8) Caro, D., & Lenkeit, J. (2012). An analytical approach to study educational inequalities: 10 hypothesis tests in PIRLS 2006. International Journal of Research and Method in Education, 35(1), 3–30. https://doi.org/10.1080/1743727X.2012.666718.

9) Chiou, H.-H. (2020). The Impact of Situated Learning Activities on Technology University Students' Learning Outcome. *Education Training*, 63(3), 440–452.

10) Creswell, John. W.F. (2015). *Research Design; Qualitative, Quantitative, and Mixed Methods Approaches*. Third Edition. SAGE Publications India Pvt. Ltd.

11) Diana, L. (2018). Effectiveness of role division in group discussions [Efektivitas pembagian peran dalam diskusi kelompok]. *Jurnal Pendidikan dan Sosial*, 10(4), 59–72.

12) Effendi, M. (2018). Models in Mathematics Learning [*Model-Model Dalam Pembelajaran Matematika*]. Publikasi Dinas Pendidikan Jakarta.

13) Felder, R. M., & Brent, R. (2009). Active learning: An introduction. ASQ. *Higher Education Brief*, 2(4), 1–5.

14) Fitriani, R., & Rahman, A. (2021). The influence of discussion methods on students' learning motivation [Pengaruh metode diskusi terhadap motivasi belajar siswa]. *Jurnal Pendidikan Sosial*, 9(2), 123–132.

15) Girmen, P., & Kaya, M. F. (2019). Using the Flipped Classroom Model in the Development of Basic Language Skills and Enriching Activities: Digital Stories and Games. *International Journal of Instruction*, 12(1), 555–572.

16) Godfrey, E. B., & Grayman, J. K. (2014). Teaching citizens: The role of open classroom climate in fostering critical consciousness among youth. Journal of Youth and Adolescence,

17) 43(11), 1801–1817. https://doi.org/10.1007/s10964-013-0084-5.

18) Gunawan, A. (2019). Active learning with group discussions [Pembelajaran aktif dengan diskusi kelompok]. *Jurnal Pendidikan dan Pembelajaran*, 11(1), 23–33.

19) Hadji Abdelkader. (2025). Impact of Distance Education on Scientific Learning at M'sila University-Algeria. *Studies in Science of Science*, 43 (08). DOI: 10.5539/mas. v13n2p192.

20) Hadjioannou, Xenia. (2018). Bringing the background to the foreground. What do classroom environments that support authentic discussions look like? *American Educational Research Journal*, 44, (2) (06): 370-399.

21) Hamdani, Saepul. (2017). Development of Creativity-Based Learning Models [Pegembangan Model Pembelajaran Berbasis Kreatifitas]. Penerbit, UNESA, Press. Surabaya.

22) Hanna, B. and De Nooy, J. (2009). *Learning language and culture via public internet discussion forums*. Palgrave Macmillan.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 58 Issue: 12:2025
DOI: 10.5281/zenodo.18052376

23) Haris, Mujiman. (2012). Self-Based Training Management [Manajemen Pelatihan Berbasis Mandiri]. Pustaka Pelajar, Yogyakarta.

24) Hery, Clay. (2010). *Lindgren. Educational Psychology the Classroom*. Modern Asian Edition.

25) Jamil, R. (2020). Active learning methods: Group discussions and their impact on student engagement [Metode pembelajaran aktif: Diskusi kelompok dan dampaknya terhadap keaktifan siswa]. *Jurnal Pendidikan Pancasila*, 12(1), 89–104.

26) John, H. AC., Hattie1 and Gregory M Donoghue. (2016). *Learning strategies: a synthesis and conceptual model*. NPJ Science of Learning, 16013.

27) Khusnul Khotimah. (2016). The influence of learning strategies on learning outcomes is viewed from learning activities [Pengaruh strategi pembelajaran terhadap hasil belajar di tinjauh dari aktifitas belajar]. Surakarta: Tiga Serangkai.

28) Lin, H., & Kim, Y. (2023). Learning from Disagreement on social media: The Mediating Role of Like-Minded and Cross-Cutting Discussion and The Moderating Role of FactChecking. *Computers in Human Behavior*, 139, 107558.

29) Lüdtke, O., Robitzsch, A., Trautwein, U., & Kunter, M. (2009). Assessing the impact of learning environments: How to use student ratings of classroom or school characteristics in multilevel modeling. Contemporary Educational Psychology, 34(2), 120–131. https://doi.org/10.1016/j.cedpsych.2008.12.001.

30) Lustra, E. & Potter, M. (2008). *Leading Effective Discussions*. Green Guide No. 9. London, ON: Society for Teaching and Learning in Higher Education.

31) Milies, B. Mathew & Hubberman. (2014). *Michall Huberman and Saldana. Analisis Data Kualitatif*. First Edition. Englewood Cliffs, Prentice Hall. New York.

32) Mulyasa, Ibrahim. (2015). *Manajemen Berbasis Sekolah, Konsep, Strategi dan Implementasi Kurikulum 2013*. Bandung: Rosda Karya,

33) Nurdyansyah. N., Eni Fariyarul Fahyuni. (2016). *Inovasi Model Pembelajaran Sesuai Kurikulum 2013*. Sidoarjo:Nizamia Learning Center. 2016.

34) O'Connell, A. A., & McCoach, D. B. (2008). Multilevel modeling of educational data. Charlotte, NC: IAP.

35) Omar, H., Embi, M. and Yunus, M. (2012). Learners' use of communication strategies in an online discussion via Facebook. *Procedia - Social and Behavioral Sciences*, 64, pp. 535–544.

36) Pertiwi, H. (2021). The role of teachers in increasing student participation through discussion methods [Peran guru dalam meningkatkan partisipasi siswa melalui metode diskusi]. *Jurnal Pendidikan Dasar*, 19(2), 101–114

37) Pramudito, M. (2019). The effectiveness of group discussions in improving students' communication skills [Efektivitas diskusi kelompok dalam meningkatkan keterampilan komunikasi siswa]. *Jurnal Pendidikan dan Pengajaran*, 17(1), 45–59.

38) Salmayzuri, (2015). Evaluation of the Mathematics Learning Program at Watansoppeng State High School [Evaluasi Program Pembelajaran Matematika di SMA Negeri Watansoppeng]. *Riset Assesmen Jurnal Penelitian dan Evaluasi Pendidikan*, Volume 1, No. 1

39) Sania Mohammed, Sanjay Velpula, Meera Indracanti, Amoli, Dr. Muni Kumar Dokka. (2025). Academic Stress and its Multidimensional Impact among Undergraduate Healthcare Students: A Statistical and Cluster-Based Approach. *Studies in Science of Science*, 43 (07). https://doi.org/10.5281/zenodo.15873251

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 58 Issue: 12:2025
DOI: 10.5281/zenodo.18052376

40) Sanjaya, Wina. (2006). *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Jakarta. Kencana Prenada Media.

41) Schulz, W., Ainley, J., Fraillon, J., Kerr, D., & Losito, B. (2010). ICCS 2009 international report: Civic knowledge, attitudes, and engagement among lower-secondary school students in 38 countries. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

42) Stewart L. Tubbs. (2004). *A System Approach to Small Group Interaction*. New York, McGraw-Hill Companies:

43) Sugiyono. (2015). Qualitative and Quantitative Research Methods [Metode Penelitian Kualitatif dan Kuantitatif]. Penerbit CV Alfabeta, Bandung.

44) Sugiyono. (2019). Discussion method as a means of increasing conceptual understanding [Metode diskusi sebagai sarana peningkatan pemahaman konsep]. *Jurnal Pendidikan Karakter*, 7(3), 56–67.

45) Suharsimi, Arikonto. (2012). Research Procedures A Practical Approach [Prosedur Penelitian Suatu Pendekatan Praktek]. Edisi Revisi II. Rineka Cipta. Jakarta.

46) Trianto. Mendesain. (2010). Innovative-Progressive Learning Models [Model-Model Pembelajaran Inovatif-Progresif]. Jakarta: Kencana.

47) Veronica, Rini. (2017). Analysis of Mathematics Learning Implementation Design [Analisis Rancangan Pelaksanaan Pembelajaran Matematika Terhadap Prestasi Mata Pelajaran Matematika Pada Siswa SMP Negeri 02 Singosari, Malang]. Abstrak, Program Pasca Sarjana Universitas Negeri Malang.

48) Vivek Kumar Rawat1 and Prof. M.T.V. Nagaraju. (2025). Factors Influencing Students' Attitude towards Ethno mathematics in Mathematics Curriculum: A Structural Equation Modelling Approach. *Studies in Science of Science*, 43 (06). https://doi.org/10.5281/zenodo.15873119

49) Wahyuddin, Ramly, Anshari, Mantasiah, & Agussalim Djirong. (2025). Assitalliang and Cultural Awareness in Learning Indonesian Language in Higher Education Institutions. *Studies in Science of Science*, 43 (06).