Research Paper

The Role of Rhetorical Strategies in Fostering Effective Communication in Architectural Design Studios

Reyhane Khaghanpour Shahrezaee [1], Fatemeh Mehdizadeh Saradj [2*]

School of Architecture and Environmental Design, Iran University of Science and Technology

Abstract
Architectural education at the undergraduate level primarily focuses on design studios, which are conducted through critique sessions. These sessions are crucial for fostering communication between tutors and students, making them a key component of architectural education. Despite the emphasis on visual presentation in various courses, verbal communication receives less attention. To address this gap, it is essential to explore knowledge centered on human communication and strategies for improvement. Rhetoric, a concept introduced by philosophers and literary scholars, forms the foundation of all human communication by focusing on persuasive techniques. This research investigates critique sessions in architectural design studios, particularly examining the communication between tutors and students within the framework of rhetorical knowledge. The goal is to enhance this communication by elucidating the critique session and the relationship between teacher and student. The research employs a combination of descriptive and analytical strategies, along with logical reasoning, to address two primary questions: "How can the critique session be defined as a rhetorical situation?" and "What are the persuasion techniques used at each stage of the architectural design studio?" By applying rhetorical situation theory and persuasive methods, the research presents techniques for each stage of the architectural design studio, aiming to enhance the effectiveness of critique sessions. The findings suggest that effective communication in these sessions relies on clear, coherent expression and logically presented criticisms and suggestions. This creates a persuasive context that facilitates mutual understanding. As a result, architectural students not only acquire design skills but also develop the ability to communicate convincingly and defend their designs effectively in various scenarios.

Keywords: *Architectural design education, Critique, Architectural criticism, Rhetoric, Persuasion.*

1. INTRODUCTION

For nearly a century, architectural design studios have been a cornerstone of architectural education, recognized as its "heart" and "soul" (Bailey, 2005; Goldschmidt et al., 2010; Oh et al., 2012; Sardashti et al., 2019). In Iran's education system, the teaching of architectural design courses, which are among the most crucial subjects in the undergraduate architecture curriculum, has traditionally followed the master-apprentice approach (Sharif, 2015, p. 23). This method, often referred to as "correction," involves a reciprocal exchange of architectural designs on the drafting table through dialogue between the tutor and the student. Bailey (2005) describes this approach as a dynamic two-way conversation in which the student gains knowledge through the process (Bailey, 2005). While architectural design studio education offers numerous strengths and advantages, it is not without its drawbacks. On one hand, it promotes creative exploration, idea generation, and critical discourse. On the other hand, it has struggled to keep pace with the rapid changes in society (Bailey, 2005). Concerns about critique sessions often center on the quality of the relationship between students and tutors, with some students feeling that this teaching method stifles their creativity (Sharif, 2015). Additionally, many critique sessions tend to be defensive and are often

accompanied by anxiety and apprehension among students (Mcdonald & Michela, 2019, p. 3). This issue can largely be attributed to a lack of effective communication, where students struggle to express their ideas and tutors may not use the most appropriate methods of expression.

Considering the importance of critique sessions as a central element in architectural education, "criticism" and "jury sessions" remain crucial in architectural studio education (Allan, 2013; Bailey, 2005; Uluoğlu, 2000; Utaberta et al., 2013). Critique is a prominent pedagogical approach in design education, helping the design tutor guide the student toward the final design. Despite the tutor's dominant presence compared to the student in this method, it remains at the heart of architectural education (Cronjé & Morkel, 2022, p. 5). Furthermore, critique serves as a two-way communication tool between the student and tutor, and oral communication, as a form of critique, plays a significant role in architectural education (Gunday Gul & Afacan, 2018).

In light of the provided explanations, criticism serves as an essential tool for architectural education during critique sessions, significantly influencing the quality of architectural education. Achieving an understanding with the student relies on the expertise, knowledge, wisdom, and experiences of the architectural tutor. The critique session acts as a realm of architectural criticism, with the tutor taking on the role of a critic. Students present their work, and the tutor critiques and analyzes it based on the materials provided and the students' articulation of the design. Thus, after the visual presentation, the student's spoken words become their primary tool for expressing ideas, while the tutor's spoken words become their primary tool for critiquing and articulating the realities of the student's work.

According to Schon (1985), the dialogue between tutor and student in a critique session aims to achieve a convergence of meaning, but this dialogue and connection are not always straightforward and clear. Despite numerous critique sessions, convergence might not always occur (Arida, 2011, p. 43). Therefore, it is essential for architectural tutors to utilize methods, tricks, and techniques to make their verbal communication more influential and to establish a more effective connection in discussions with students about their designs. Additionally, students should equip themselves with compelling, clear, and lucid expressions to successfully present their designs to future clients.

Based on the opinions of philosophers, literary scholars, and communication experts, rhetoric plays a role wherever human interaction occurs, whether through conversation or other forms. Rhetoric, recognized as the art of speaking and composing (Nadimi et al., 2022), is known for its effectiveness and impact on the audience (Ahmadi, 2017b, p. 51).

Given the significance of the tutor-learner relationship during architectural design studio sessions, this article aims to "clarify the critique sessions in architectural design studios and the nature of communication between tutors and students to gain a deeper understanding of the educational environment within these studios." This objective is pursued by exploring the concepts of rhetorical knowledge.

Considering this objective, the research questions can be formulated as follows: How can the critique and instructional context in architectural design studio sessions be defined based on the rhetorical situation? Which rhetorical techniques correspond to each step of the architectural design process?

2. REVIEW OF THE RELATED LITERATURE

Various studies have been conducted in the field of architectural design education within studios and the connection between architecture and rhetoric. As summarized in Table 1, these studies can be discussed in four categories.

The reviewed research primarily focuses on the importance of incorporating critique within architectural design studios. Some studies emphasize the significance of teaching architectural critique and critical thinking to architecture students, highlighting the lack of an effective method for conducting critiques within these studios. Essentially, most studies aim to identify shortcomings and propose areas for improvement. Additionally, research related to architecture and rhetoric often explores the relationship between architecture and rhetoric in architectural design or the development of architectural education systems, such as in Nadimi et al. (2022), with less attention given to the teacher-student relationship.

Furthermore, although numerous studies have been conducted on architectural design studios and their teaching methodologies (e.g., El-Latif et al., 2020; Oh et al., 2012; Utaberta et al., 2013), only a few have specifically targeted teacher-student discussions within the architectural context (e.g., Goldschmidt et al., 2010). As a result, this study seeks to utilize rhetorical knowledge to examine the teacher-student relationship and offer strategies for enhancing this relationship within the architectural domain.
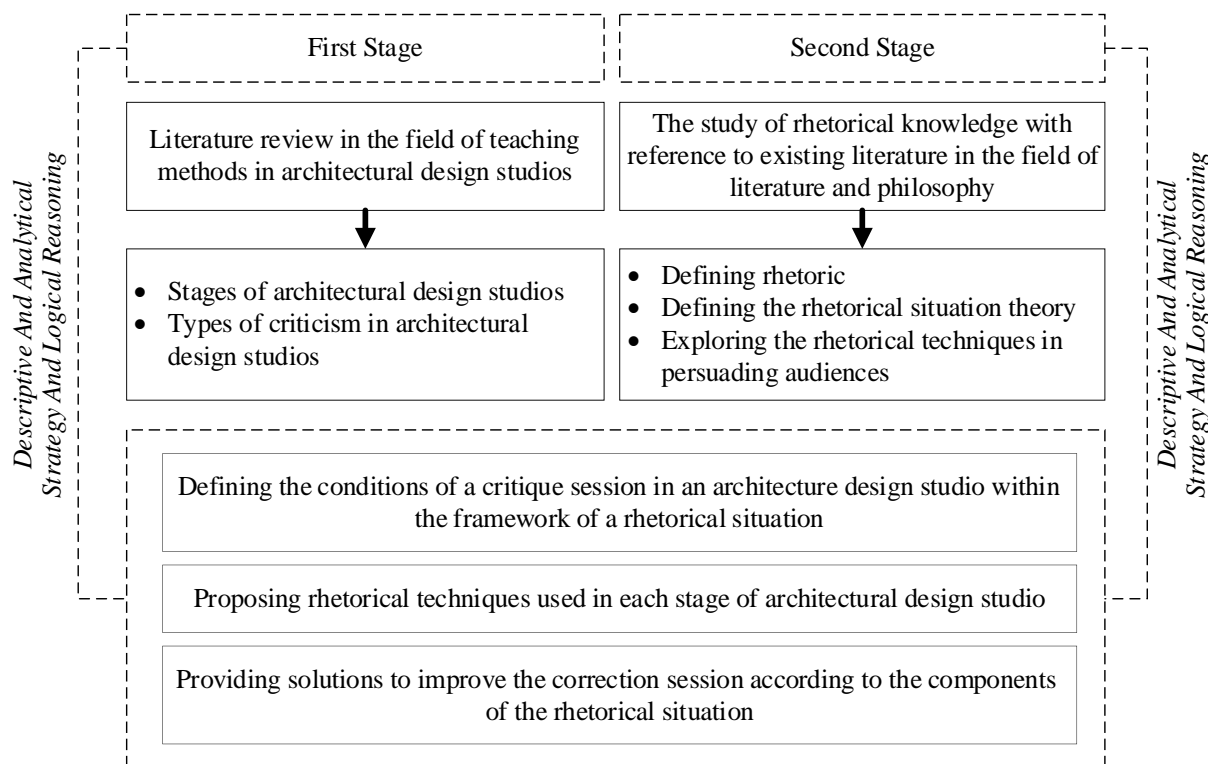
Table 1. Literature review (authors)

Studies based on subject and research objectives	Studies	The most significant achievements and results
Critique and Architectural Education	(Alizadeh Miandouab, Aynaz Akrami & Nejati, 2022; Alizadeh Miandouab & Akrami, 2019; El-Latif et al., 2020; Mehrdoust, 2019; Mehrdoust et al., 2019; Oh et al., 2012; Razaghi Asl & Rahimi Ariaee, 2017; Sharif, 2015; Utaberta et al., 2013)	Addressing the lack of a proper critique method and an effective approach for teaching it within architectural design studios, categorizing various types of critique methods used in architectural design studios, examining the impact of each type of critique on students' learning outcomes, offering suggestions for optimizing each method, proposing strategies for critical teaching and its implementation by architectural educators.
Examination of Critique Sessions and Conversations in Art Fields Including Architecture	(Choi & Rhoades, 2020; Dannels et al., 2008; Dannels & Martin, 2008; Goldschmidt et al., 2010; Karbasi, 2011; Nespoli et al., 2021; Uluoğlu, 2000)	The significance of the tutor's communication style and the topic of discussion in educating students, the introduction of various types of feedback provided by tutors when engaging with students' designs, and the exploration of methods (within studio studies) that tutors can utilize to enhance students' presentations.
Analysis of Discourse and Expression of Architects	(Caballero, 2013, 2014, 2017; Dannels, 2005; Gaffney, 2010; Khaki Ghasr & Poormahdi Ghaemmaghami, 2014)	The use of metaphor for conveying concepts in the shortest time and in the best manner has gained attention among architects. Teaching verbal description, expression, and writing skills to architecture students will prove effective only when concepts are presented not just theoretically (such as in handbooks), but also practically through exercises during architectural design studio sessions.
Exploring the Relationship between Rhetoric and Architecture	(Ballard & Koskela, 2013; Buchanan, 2001; Engbers, 2018; Kelly & Thiessen, 2018; Nadimi et al., 2021, 2022; Thiessen et al., 2015; Thiessen & Kelly, 2017)	The first categories of research have aimed to explore the relationship between the science of rhetoric and the field of architecture (design in general) and have remained primarily at a theoretical level. The second category has sought to develop strategies for utilizing rhetorical principles in interpersonal communications within the realm of design and verbal presentation of works. These studies suggest that the use of rhetorical techniques is present subconsciously among professional designers and even students, but it needs to be systematically taught and formalized.

3. RESEARCH METHODOLOGY

The paradigm of this research is qualitative, which assumes a subjective reality and views the researcher as interactive with the subject of inquiry. On a methodological level, the qualitative paradigm necessitates an inductive process of inquiry that seeks to clarify multiple critical factors affecting the phenomenon (Groat & Wang, 2013). This research progresses through a combination of descriptive and analytical strategies and logical reasoning. The study utilizes sources, literature reviews, and document research as research tactics.

To address the research questions, we first examine the pedagogical approach in architectural design studios and explore various methods of critique. Subsequently, the concept of rhetoric is elucidated by referring to existing literature in the field, highlighting rhetorical situations and techniques used to persuade the audience (Sections 4 & 5). Finally, through logical reasoning, it is demonstrated how clarifying the instructional situation in architectural design studios using rhetorical situations can contribute to improving teaching conditions and fostering a more effective teacher-student relationship. The research process is illustrated in Diagram 1.

	First Stage		Second Stage	
Descriptive And Analytical Strategy And Logical Reasoning	Literature review in the field of teaching methods in architectural design studios		The study of rhetorical knowledge with reference to existing literature in the field of literature and philosophy	*Descriptive And Analytical Strategy And Logical Reasoning*
	• Stages of architectural design studios • Types of criticism in architectural design studios		• Defining rhetoric • Defining the rhetorical situation theory • Exploring the rhetorical techniques in persuading audiences	

Defining the conditions of a critique session in an architecture design studio within the framework of a rhetorical situation

Proposing rhetorical techniques used in each stage of architectural design studio

Providing solutions to improve the correction session according to the components of the rhetorical situation

Diagram 1. Research process

4. ARCHITECTURAL DESIGN STUDIO, STAGES AND TYPES OF CRITIQUE

The architectural design studio, commonly referred to as "Atelier," traces its origins back to the Bauhaus and Beaux-Arts school models (Arida, 2011, p. 36; Goldschmidt et al., 2010, p. 286). Even in contemporary times, it remains the cornerstone of architectural design education. Within the Atelier setting, students, under the guidance of a tutor, immerse themselves in architectural design projects, thereby enriching their knowledge and skills (Arida, 2011, p. 38). Fundamentally, the essence of education lies in the principle of "learning by doing" (Schon, 1985).

o *Stages of Architectural Design Studio*

Researchers and various experts have delineated the different stages of the architectural design studio and the iterative process it entails. According to Utaberta, the workflow in an architectural design studio unfolds as follows: At the outset, students and tutors engage in collaborative efforts, sharing objectives, ideas, challenges, and resolutions to propel a design project forward. Typically, a design theme is introduced at the beginning of the semester, spanning the entirety or a segment thereof. A comprehensive project brief, encapsulating objectives, user requirements, site particulars, and other technical specifications, is furnished to the students. During the initial phases of project development, students may delve into research on overarching themes pertaining to the design topic and present their discoveries to the class. As the design process ensues, each session sees the tutor proffering suggestions for addressing design intricacies. Subsequently, students are tasked with assessing the ramifications of these suggestions and modifications by reviewing their designs. Based on the outcomes of implementing feedback and the students' proposed solutions, the tutor recommends further adjustments. In addition to formal individual sessions, students engage in informal critiques of each other's work throughout the semester, imbibing diverse drawing, design, and model-making techniques from their peers. The culmination of the design topic manifests in various formats, ranging from sketches to detailed drawings and appropriately scaled models (Utaberta et al., 2013).

As outlined by Alizadeh, the customary procedure in architectural studios typically commences with the unveiling of the design topic at the onset of the semester, accompanied by pertinent information provided to the students. Subsequently, students embark on the design process, which involves studying analogous examples and scrutinizing the design site. Depending on the tutor's preferences, they may adopt either a holistic approach, progressing from a broad overview to detailed analysis, or a part-based approach, focusing on specific elements before

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integrating them into the whole. Through a series of critiques and revisions, the initial concept evolves into a design endorsed by the tutor, culminating in the preparation of requisite architectural documentation for end-of-term submission. During the final presentation, either the tutor or a panel of faculty members evaluates the works and assigns a grade to each student, typically reflecting the quality of their design relative to their peers (Alizadeh Miandouab, Aynaz Akrami & Nejati, 2022).

In another study by Arida (2011), the architectural design studio was delineated into five components: the design problem, initial exercises, concept development, presentation methods encompassing hand sketches, 2D drawings, 3D models, and mock-ups, and critique culture (Fig 1).

Karbasi (2011) suggests specific principles applicable to architectural design education, drawing from a field study conducted in an architectural design studio. She delineates eleven principles spanning the stages of architectural design studio education: understanding the subject, ideation in the essence phase, site investigation, formal program, concept and overall form, concept development, design geometry exploration, plan drawing, technical issues, revisiting the subject, technical drawing, and presentation.

In contrast, Uluoğlu (2000) outlines six stages within an architectural design studio: Introduction, Basic Studies and Data Collection, Initial Design/Ideation, Design (Life and Space), Gathering Supporting Knowledge, Detailed Design, and Technical Details.

Hence, through the amalgamation of expert opinions, the architectural design studio can generally be categorized into three main stages, as illustrated in Table 2:
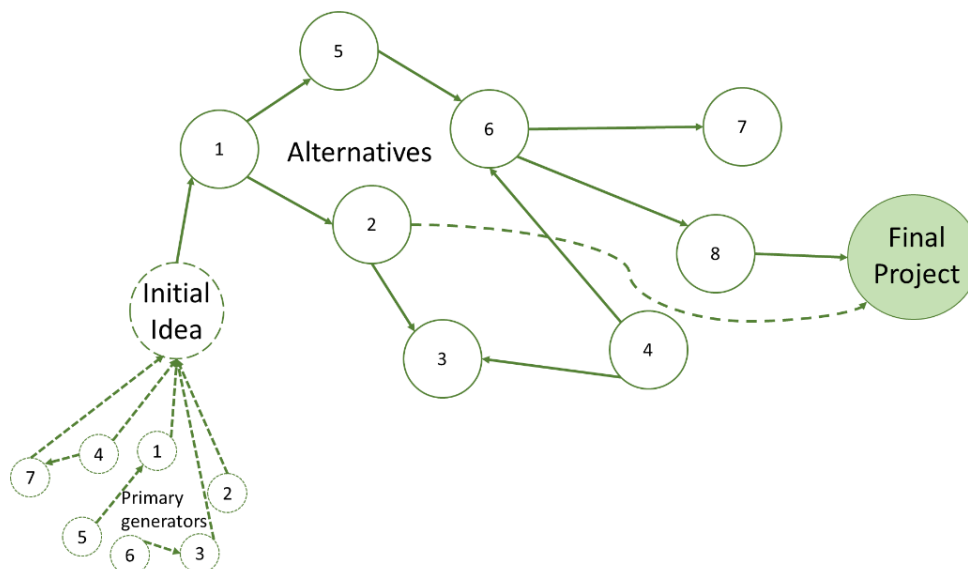
Fig 1. The process of concept development in an architectural design studio (after (Arida, 2011, p. 40))

Table 2. Stages of architectural design studio (authors)

Main Stages	Steps
Understanding The Subject	- Project Introduction (Site, Subject, Client, etc.) - Research and Data Collection Phase (Regarding Site, Subject, Design Regulations, Similar Examples, etc.)
Design	- Commencement with Sketches and Creative Exercises in the subject - Concept Presentation and Overall Massing - Concept Development (Including Functional Design of Interior Spaces, Outdoor Areas, Building's Exterior, etc.) - Detailed Design (Focus on Structure, Systems, Execution Details, etc.)
Presentation	- Technical Drawings and Presentation of the Final Design - Critique Method (Participate at Various Stages in Different Formats) - Utilization of Different Presentation Methods Appropriate to Design Stage and Emphasis on the Differences in Expressing Content.

Amidst these stages, critique sessions and presentation methods, encompassing both visual and verbal aspects, emerge as pivotal elements throughout the architectural design studio journey, spanning from project initiation to the culminating design presentation. These tools serve as conduits for students to showcase their work, while tutors employ them to engage in discussions aimed at refining and elevating the students' designs, thereby fostering their learning and design prowess. Within these critique sessions and discussions, tutors have the opportunity to delve into diverse facets of architecture and design, offering insights and recommendations across various thematic domains. Hence, augmenting the capacity for critique and refining presentation methods, for both tutors and students alike, stands poised to significantly enhance architectural education and bolster students' learning outcomes.

o *Critique in Architectural Design Studio*

As evidenced, the critique method stands out as the cornerstone of the architectural design studio process. Consequently, architects, professors, and experts have introduced a plethora of critique types within the studio environment, culminating in 9 distinct forms of critique (Oh et al., 2012; Utaberta et al., 2013):

1. Desk Crit or Individual Critique: This format entails a one-on-one dialogue between the tutor and the student, typically occurring at the student's workspace or desk.

2. Interim Review: During this stage, the student's work is evaluated in the presence of the entire studio group.

3. Final Review (Jury): Held at the semester's end, this review involves faculty members from diverse disciplines, where students are tasked with presenting and defending their designs.

4. Peer Critique or Informal Discussion: Student groups facilitate these critique sessions, with a tutor serving as a facilitator.

5. Group Critique or Expert Critique (Pin-up): In this format, a group of students present their work to one or multiple tutors, often by displaying their work on walls or tables.

6. Public Critique: External professionals or industry experts participate as guest critics during these sessions.

7. Seminar: This involves a roundtable discussion format between the tutor and students.

8. Written Critique: Students provide feedback on each other's work through written evaluations.

9. Critique Panel (Roundtable Discussion): A panel convenes to discuss a project, either intentionally or unintentionally selected by a tutor.

Indeed, the diverse forms of critique present various dynamics, ranging from the number of participants to the level of formality. Nonetheless, the underlying thread in all these interactions is the pivotal relationship between the teacher and the student, profoundly impacting the student's learning journey. To delve deeper into this relationship, we can turn to rhetorical knowledge, offering insights into the rhetorical situation. By understanding the nuances of this situation, we can foster more effective communication channels between teachers and students, ultimately enhancing the educational experience within architectural design studios.

5. RHETORIC, DEFINITION AND TECHNIQUES

The term "rhetoric" finds its origins in ancient Greece, with Aristotle being among the first to systematically explore its concepts. However, the term encompasses a wide array of meanings, making it challenging to pinpoint a single definition. In everyday usage, "rhetoric" often conveys the idea of empty or superficial language. Yet, practitioners understand it as a specific style or form of public speaking or writing (Ahmadi & Poornamdarain, 2017). A historical examination reveals four distinct meanings attributed to rhetoric: oratory, eloquence, rhetorical (low and debased style), and general persuasion through communication (Ahmadi, 2017a, p. 10). Consequently, the term "rhetoric" encompasses various interpretations and approaches, as outlined in Table 3 after analyzing several theories.

Rhetorical historians, upon examining the diverse and occasionally contradictory interpretations of rhetoric, have identified "persuasion" as the central theme (Ahmadi, 2017b, p. 50; Nadimi et al., 2022, p. 114). Essentially, if we overlook certain secondary definitions of rhetoric, persuasion emerges as the unifying element across all prevalent definitions of rhetoric spanning various cultures (Ahmadi & Poornamdarain, 2017, p. 46).

Table 3. Approaches to defining rhetoric (authors)

Meaning	Definition and approach
Communication	Using symbols in speech for establishing communication (Foss, 2018). Rhetoric is the study of the art and function of human communication (Andrea Lunsford). Rhetoric is the strategic application of oral or written communication to achieve specific goals (Andrew King & Jim A. Kuypers) (Howard, 2010).
Impact on the Audience	Rhetoric is a system that studies all methods through which humans influence the thinking and behavior of their fellow humans using the strategic application of symbols (Douglas Ehninger). Rhetoric is the use of language as a tool. Its goal is to impact human choices in matters that require immediate attention (Gerard A. Hauser). According to James Herrick, "Rhetoric is the inherent force of human thought and emotion that influences the decisions and actions of others through language" (Nadimi et al., 2022).
Method of Reality Alteration	Rhetoric is the art of altering or modifying reality by creating a connection; a connection that transforms reality through thought and action (Lloyd Bitzer).
Compromise	Rhetoric can be defined as the art or technique of conciliation and negotiation (Samuel M. Edelman).
Persuasion and convincing the audience	Controlling events for the audience (Kaufer & Butler, 1996). The art or discipline that deals with the use of discourse for informing, persuading, or arousing the audience. Rhetoric means to persuade and encourage, as well as presenting ideas effectively and influentially in an engaging and receptive manner. Using language arts to persuade the audience to perform a task or accept a certain idea. According to Engbers, rhetoric is the art of using words to inform, persuade, or motivate the audience. Aristotle defines this skill in his book on rhetoric as "Mental power to see the available ways to convince the audience in any particular case "(Ahmadi, 2017a).
Eloquence and beauty in speech	Rhetoric means adorned speech and discourse embellished with metaphors and other expressive forms. Rhetoric is the art of designing confined to words (Ballard & Koskela, 2013).
Transference of meaning and concepts	The relationship between the knowledge of rhetoric and the knowledge of communications is very closely intertwined. Abdulhamid Katib defines rhetoric as follows: "Conveying meaning to minds through the simplest form of speech" (Rasouli, 2001).

o *Rhetorical Situation Theory*

Rhetoric is often regarded as a means of preparing for action, providing a framework for decision-making. The "Rhetorical Situation Theory" offers insight into the contextual factors at play in rhetoric. Essentially, whenever an individual is confronted with a necessity, request, or inquiry—whether internal or external—that demands their influence on life, they find themselves within a rhetorical situation (Nadimi et al., 2022, p. 115).

Various theorists have explored the concept of the rhetorical situation and its components and characteristics since 1968. Among them, Lloyd Bitzer (Bitzer, 1968), Keith Grant (Grant-Davie, 1997), Suzan Last (Last, 2019), and David Bock (Buck, 2020) stand out prominently. Bock, in particular, has presented a comprehensive and precise model for defining the rhetorical situation, which consists of seven key elements (Fig 2):

1. Author (Message Sender): The individual crafting the message and transmitting it. The conveyed message is shaped by the author's experiences, needs, values, and may be influenced by factors such as race, gender, education, geography, and affiliations.

2. Audience: Those receiving and interpreting the message. Their comprehension is influenced by their own experiences, needs, and values, and they may either agree or disagree with the author's perspective.

3. Purpose: The author's intentions behind writing and the intended goals of the text.

4. Exigence: The perceived lack or urgency that prompts the author to write the text to address it.

5. Subject: The topic being discussed, which encompasses the primary themes of the author, text, and audience.

6. Context: The array of social, cultural, geographical, political, and institutional factors directly and indirectly shaping the author, text, and audience within a specific situation.

7. Genre: The category of text produced by the author, with certain types of texts being more suitable for specific situations than others.
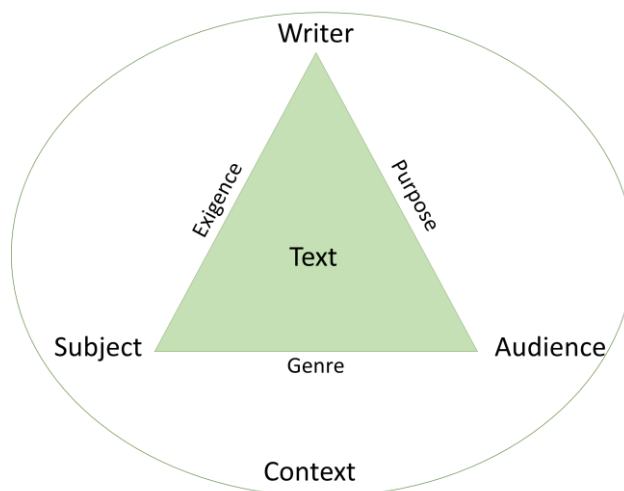
Fig 2. The final model of the rhetorical situation (after (Buck, 2020, p. 9))

o *Rhetoric and Persuasion*

The essence of rhetoric, as various definitions suggest, converges on the theme of persuasion. Within a rhetorical situation, the rhetor must possess skills and capabilities, often referred to as "arts or skills," to consistently deliver a coherent and persuasive message, adapting to changing circumstances and evolving situations (Nadimi et al., 2022, p. 116).

Persuasion, fundamentally, is a communicative process aimed at influencing the recipient voluntarily by presenting a persuasive message, opinion, or behavior, with the anticipation of eliciting a meaningful impact. Definitions of persuasion vary and sometimes conflict, offering nuanced perspectives on its nature. In one view, persuasion is conceptualized as a process that employs rational and emotional appeals, utilizing verbal and non-verbal skills, as well as various media, to influence individuals' mindsets, prompting behavioral change and motivating them towards specific actions (Eslami & Kaveh, 2016, p. 182).

The study of persuasion and its techniques has been explored under numerous guises, including persuasion, influence, rhetoric, sales techniques, persuasion frameworks, and more. This broad spectrum encompasses a diverse array of techniques and strategies aimed at understanding and leveraging the dynamics of persuasion (Braca & Dondio, 2023). Aristotle underscores three pivotal elements in the art of persuasion: ethos (credibility), pathos (emotion), and logos (logic) (Ahmadi, 2017b, p. 61):

- Cultivating Credibility (Ethos): Aristotle places utmost importance on the credibility of the speaker in rhetoric. Persuasion, according to him, hinges on the audience's perception of the speaker as a trustworthy and morally upright individual.

- Stirring Emotions (Pathos): Aristotle contends that all emotions influencing individuals hold sway over their judgment. Consequently, effective speech should be tailored to resonate with the audience's demographics, needs, and emotional states.

- Logical Persuasion (Logos): This form of persuasion employs reasoned arguments to sway the audience and is grounded in logical reasoning, as advocated by Aristotle (Ahmadi, 2016, p. 145).

Braca and Dondio (Braca & Dondio, 2023) classify persuasion techniques into three overarching groups: "psychology," "philosophy," and "communication." Among the most prevalent rhetorical tools identified are Hypophora, Rhetorical questions, Anaphora, Antanagoge, and Strategic word choice.

McGuigan (McGuigan, 2007) outlines a list of key rhetorical tools for effectively persuading an audience, including Antithesis, Hypophora, Rhetorical question, Distinction, Simile, Allusion, Metaphor, Climax, Anadiplosis, Aporia, Amplification, and Personification.

Wayne Attoe (Attoe, 2006) highlights rhetorical techniques pertinent to discussing architects (architectural criticism), such as metaphorical language, humor, individuation, personification of buildings, dichotomy, juxtaposition, exaggeration, innuendo, and technical terminology.

Reflecting on these perspectives, discussing rhetorical techniques entails exploring methods of persuasion and language's impact on the audience. By synthesizing the presented theories on persuasion techniques, diverse opinions and strategies can be categorized into three primary groups: "credibility," "emotion," and "logic." Through logical analysis and comparison across different viewpoints, various rhetorical tools have been organized into these three categories, as depicted in Table 4. It's worth noting that certain techniques may overlap and fall into multiple categories.

Table 4. Classification of the rhetorical techniques for persuading the audiences (authors)

	Logic	Emotion	Credibility
Length of speech	- Employing brevity and conciseness in speech rather than elaboration and digression.	- Arrange words and sentences in a suitable and impactful order.	
Proper layout of the speech	- Using words correctly and providing clear definitions when speaking. - Using specialized terminology and vocabulary. - Incorporating adjectives and idiomatic expressions. - Organizing information logically and systematically.	- Using verbs in the present tense instead of the future. - Utilizing rhetorical sound patterns: repeating similar sounds or syllables at the beginning of words in a sentence. -	
Using literary devices	- Making comparisons (including similes and metaphors). - Utilizing contrast and contradiction.	- Utilizing figurative language, such as metaphors or similes, in speech. - Employing exaggeration or hyperbole. - Employing irony.	- Use of figurative language, such as metaphor or simile, in speech.
Reference to other topics (verbal and visual)	- Presenting logical reasons and evidence. - Utilizing diagrams and figures. - Selecting comparable or relatable examples for illustration. - Incorporating findings from research and scientific studies.	- Drawing upon collective experiences or common knowledge. - Using examples from everyday life.	- Incorporation of personal experiences. - Utilization of historical or literary examples. - Integration of expert opinions.
Affecting the subconscious		- Incorporating humor and sarcasm. - Creating personification (attributing human qualities to non-human entities). - Using storytelling. - Using a rhetorical question: a question that doesn't require an answer but prompts the audience to think or feel a certain way. - Employing implicit meaning: using words to convey emotional or social meaning rather than the literal meaning.	- Consideration of the current situation and context of the audience.

6. FINDINGS

Considering the insights provided in the preceding sections, a key aspect of rhetorical situation theory is its focus on situational orientation. Learning within the architectural design studio similarly adheres to situated learning principles. This situational context encompasses the instructor, peers, tools, and the

learning environment. Moreover, the primary objective of critique sessions in the studio is to offer constructive feedback to students, thereby facilitating their learning. Thus, we encounter a rhetorical situation where communication is aimed at influencing the perspectives of others. In this context, the architectural criticism and dynamics of a critique session in an architecture design studio can be framed within the framework of a rhetorical situation. If we designate the instructor as the rhetor and the student as the audience, the rhetorical situation can be delineated as outlined in Table 5.

In the model presented above, the critique session is defined from the perspective of the architectural tutor as the sender of the message. However, it's plausible to adopt a different viewpoint and regard the student as the sender of the message during the presentation of their work. In such an instance, the rhetorical situation model would undergo a transformation, as delineated in Table 6.

In this manner, optimizing a critique session within an architectural design studio for educational efficacy entails acknowledging its constituent elements as integral parts of a unified whole. To bolster the tutor-student dynamic within the rhetorical context of architectural design studios, recourse to rhetorical persuasion techniques becomes imperative, each tailored to correspond with distinct stages of the design studio process. With regard to the diverse phases inherent in the architectural design studio and the classification of rhetorical techniques, Table 7 outlines potent speech strategies for both tutors and students.

Table 5. Rhetorical situation and architectural critique in criticism sessions, teacher as rhetor (authors)

Rhetorical situation	Critique session (Critique from the teacher's perspective)
Rhetor	Tutor
Message	Interpretation of the student's work
Context	Architectural design studio/ tutor and student knowledge
Audience	Student
Subject	Critique/ topics related to the student's work
Purpose	Critiquing the student's work and providing feedback/ teaching architectural design
Exigency	Improving the teaching process/ architectural design education
Genre	Tutor's discourse/using clear, comprehensible, and persuasive language, offering critiques and suggestions logically and transparently

Table 6. Rhetorical situation and the student (authors)

Rhetorical situation	Critique session (Critique from the student's perspective)
Rhetor	Student
Message	Presentation of the student's work
Context	Architectural design studio/ tutor and student knowledge
Audience	Tutor
Subject	Critique/ topics related to the student's work
Purpose	Introducing the work in the simplest and clearest manner
Exigency	Correcting the design, improving the teaching process, and developing student skills, including communication skills
Genre	Student's expression effectively and persuasively (both verbally and visually)

Table 7. Stages of architectural design studio and rhetorical techniques (authors)

Stages of Architectural Design Studio	Rhetorical techniques of the students while presenting their work	Rhetorical techniques of the tutor while critiquing the student's work
Project Introduction	-	- Incorporation of personal experiences. - Utilization of historical or literary examples. - Integration of expert opinions.
Research and Data Collection Phase	- Utilization of historical or literary examples. - Integration of expert opinions. - Incorporating findings from research and scientific studies. - Selecting comparable or relatable examples for illustration. - Organizing information in a logical and systematic.	Encourage students to present logical reasons for conducting research, gathering information, and explaining its impact on the quality of design.

Stages of Architectural Design Studio	Rhetorical techniques of the students while presenting their work	Rhetorical techniques of the tutor while critiquing the student's work
	- Making comparisons - Utilizing contrast and contradiction. - Drawing upon collective experiences or common knowledge. - Using examples from everyday life.	
Commencement with Sketches and Creative Exercises in the subject	- Use of figurative language, such as metaphor or simile, in speech. - Using verbs in the present tense instead of the future. - Using storytelling. - Arrange words and sentences in a suitable and impactful order. - Using examples from everyday life. - Employing brevity and conciseness in speech rather than elaboration and digression. - Making comparisons (including similes and metaphors).	- Use of figurative language, such as metaphor or simile, in speech. - Consideration of the current situation and context of the audience. - Incorporation of personal experiences. - Using a rhetorical question - Drawing upon collective experiences or common knowledge. - Arrange words and sentences in a suitable and impactful order.
Concept Presentation and Overall Massing		- Use of figurative language, such as metaphor or simile, in speech. - Consideration of the current situation and context of the audience. - Incorporation of personal experiences. - Utilization of historical or literary examples. - Integration of expert opinions. - Employing exaggeration or hyperbole. - Incorporating humor and sarcasm. - Using a rhetorical question - Drawing upon collective experiences or common knowledge. - Arrange words and sentences in a suitable and impactful order. - Making comparisons (including similes and metaphors). - Selecting comparable or relatable examples for illustration.
Concept Development	- Employing brevity and conciseness in speech rather than elaboration and digression. - Making comparisons (including similes and metaphors). - Utilizing contrast and contradiction. - Incorporating adjectives and idiomatic expressions. - Using specialized terminology and vocabulary. - Organizing information logically and systematically. - Use of figurative language, such as metaphor or simile, in speech. - Creating personification (attributing human qualities to non-human entities). - Using storytelling.	
Detailed Design	- Presenting logical reasons and evidence. - Using specialized terminology and vocabulary.	- Incorporation of personal experiences. - Utilization of historical or literary examples. - Integration of expert opinions. - Presenting logical reasons and evidence. - Using specialized terminology and vocabulary. - Selecting comparable or relatable examples for illustration.
Technical Drawings and Presentation of the Final Design	- Use of figurative language, such as metaphor or simile, in speech. - Employing brevity and conciseness in speech rather than elaboration and digression. - Using words correctly and providing clear definitions when speaking. - Incorporating adjectives and idiomatic expressions. - Presenting logical reasons and evidence. - Using specialized terminology and vocabulary. - Organizing information logically and systematically.	- Use of figurative language, such as metaphor or simile, in speech. - Consideration of the current situation and context of the audience. - Arrange words and sentences in a suitable and impactful order. - Presenting logical reasons and evidence. - Using specialized terminology and vocabulary.

7. CONCLUSIONS

Architectural education is not solely about imparting knowledge; it's about nurturing architects who can integrate diverse knowledge across different contexts, including design, critique, client interaction, and collaboration with peers. In our study, we delved into the stages of architectural design studios and the various forms of critique to develop a framework for enhancing communication between tutors and students. Through our investigation, we found that critique and presentation methods are crucial elements throughout the stages of architectural design studios.

This study aimed to address two main questions. The first question focused on defining the critique session in an architectural design studio as a rhetorical situation. Through our investigations, we delineated the components of the architectural design studio as a rhetorical situation, as illustrated in Tables 5 and 6. By examining these tables and considering the categorization of different types of critiques, we can ascertain the significance of each element of the rhetorical situation in various types of critique sessions.

Essentially, we can demonstrate that depending on factors such as the number of students, whether the critique is public or private, and whether it's formal or informal, certain components of the critique gain more importance and require greater attention. In private critiques involving a smaller number of students, both the tutor and the student function as senders of the message. This setting fosters face-to-face conversations between the tutor and the learner, wherein the words and expressions of both parties become crucial in achieving intellectual consensus and mutual understanding. Consequently, elements such as the sender and receiver, the message, the topic, the goal, the necessity, and the genre hold significance.

Conversely, in critiques that are more public and involve a larger number of students, the students assume the role of the sender. In this scenario, elements such as the message, the context, the goal, the necessity, and the genre become crucial in shaping the critique session and fostering effective communication among participants.

Continuing the research, we aimed to address the question "Which rhetorical techniques are applicable at each stage of the architectural design studio." We delved into these techniques in detail, and Table 7 provides an overview of the techniques employed at each stage of the architectural design studio. It's noteworthy that across the various stages of the architectural design studio and the topics discussed at each stage, all persuasion techniques related to

credibility, emotion, and logic can be utilized. However, it's apparent that certain techniques are more effective at specific stages. For instance, during the information-gathering and subject-understanding stage, credibility-related techniques such as leveraging experiences, historical or literary examples, and expert opinions, as well as logic-related techniques like utilizing similar examples and comparisons, are particularly applicable. Conversely, in the initial design and concept development stages, techniques geared towards evoking emotions, such as employing metaphors, personification, and storytelling, are more recommended.

Our analysis of the components of the rhetorical situation underscores the importance of effective communication during critique sessions, which hinges on clear and coherent expression, as well as the logical presentation of critiques and suggestions. By framing critique sessions as rhetorical situations and offering these strategies, our aim is to cultivate a persuasive environment where tutors and students mutually comprehend each other's perspectives and reach a shared intellectual consensus.

Through this collaborative process, architecture students not only refine their design skills but also develop essential abilities in effective interaction and verbal communication. This equips them to advocate convincingly for their designs across various contexts. Hence, it is essential to integrate persuasive and impactful communication techniques throughout each stage of architectural design studios.

Defining a critique session as a rhetorical situation directs our attention to its key components, each playing a pivotal role in facilitating a productive and effective critique session that yields educational outcomes:

• The tutors, being key figures, hold significant roles as both message senders and receivers. Thus, their communication style and engagement with students' work are vital. A proficient tutor should possess the following attributes:

- Possessing ample expertise in architecture to grasp students' work thoroughly and articulate concepts effectively to them.

- Being attentive to students' viewpoints and actively listening to their statements and opinions.

- Possessing strong interpersonal communication skills to establish effective connections with students and demonstrate proficient verbal communication.

- Demonstrating adaptability to accommodate the diverse needs of students, showcasing flexibility in both content delivery and presentation style.

- Demonstrating the capacity to select the suitable critique approach in accordance with the studio's

specifications, varying design phases, and individual differences among students.

- Ultimately, creating an interactive environment among the students.

• As the sender of the message and the one who is going to present their work, the student also needs to acquire certain skills:

- Proficiency in visual presentation methods and discernment of their optimal utilization across various design stages to effectively communicate specific concepts.

- Ability to communicate verbally with their classmates.

- Most importantly, they should be able to effectively convey their work using appropriate language and words.

• The ambiance of the architectural design studio, where critique sessions unfold, holds paramount importance. The physical setting and environmental factors, including the spatial layout, significantly contribute to fostering an atmosphere of intimacy and cultivating profound connections between tutors and students.

8. SUGGESTIONS FOR FURTHER RESEARCH

The findings of this study offer valuable insights for architecture educators and students seeking to enhance the effectiveness and productivity of critique sessions. However, the practical application of the proposed strategies requires additional comprehensive research and widespread implementation across diverse educational contexts.

9. ACKNOWLEDGEMENTS

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AUTHOR (S) BIOSKETCHES

R. Khaghanpour Shahrezaee., *School of Architecture and Environmental Design, Iran University of Science and Technology*
Email: Reyhane_khaghanpour@arch.iust.ac.ir

F. Mehdizadeh Saradj., *School of Architecture and Environmental Design, Iran University of Science and Technology*
Email: mehdizadeh@iust.ac.ir