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The Relationship Between Critique Styles and Design Phases During the Architectural Design Course

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Abstract:
Although it is widely acknowledged that critiquing is a crucial teaching paradigm in architecture design studios, no systematic effort has been made to take a deep look at that teaching tool from students' perspectives. That viewpoint explains far too much about the complexities of critiquing and how much it affects both students, and the teaching process.
This research paper attempted to shed some light on that issue by examining the various styles of critique that occur during different design phases in architectural design studios. To achieve this, the paper attempted to identify the fundamental stages of the teaching design paradigm that occur in a chosen Iraqi university, specifically for third-grade students. The paper then made an effort to use an anonymous questionnaire to investigate how the students responded to various design criticisms. While each style of critique has its preferences in different phases of design Results show that Students favor desk critique and group critique more than pin-up critique because they feel less hesitant and more confident.

Keywords: *Architecture, Design Critiquing, Design Education, Design Studio, Architectural Teaching.*

1. Introduction

Many architectural schools consider the work at design studios as a main paradigm of design learning as it is an efficient method to conduct practical learning. Students invest a great deal of time and efforts into their studio learning. In contrast to a lecture course, students in a design studio gain knowledge by working on projects and are required to offer a practical response to an instructor-defined design problem [1, p. 85-99]

Instead of tests and homework, students in an architecture studio are evaluated through several presentations and debates. The students consider and revise their designs as a result of working on them, presenting them (often in front of an audience), and receiving comments from the instructors and other students. For the duration of the studio course, the instructor, who is frequently an accomplished architect, offers feedback on student work. This method of assessment often prevails over the studio model in architectural education, which enhances learning- by- doing paradigm [2].

Most issues, from a pedogeological perspective, result from an inappropriate conversation that took place during the assessment [3].Hence, it is beneficial to define parameters for the appropriate method for each phase of the design process with its appropriate types of dialogue, which is what this paper will attempt to do .

2. Literature review

2.1 What is Design?

Webster's dictionary defines the verb design as " to create, fashion, execute, or construct according to plan." Although the term "design" has many different meanings that can be found in the architectural literature, all concur that it is a method for solving problems. According to Tversky (2014), [4]design is a decision-making process that ends in methods and procedures for transforming resources into problem-solving solutions. So, design is a process of bringing something new and creative [5] In several professions, design has been recognized as an intriguing new paradigm for dealing with difficulties, and each problem demands a new paradigm to be solved [6]. The designers' ambition is to create new shapes, configurations, and relationships, and they progresses in their thinking sequentially between the original state of the design data and the end design goals or what it will be. It is a mental activity consisting a of long-time process [7].

2.2 Design process in architectural education.

Architectural concepts do not emerge from thin air. They are typically raw, formless, and diffuse emotions that must be refined using a specific technique; this refinement process is critical in developing the design solution[8]. Architectural ideas and concepts are enhanced through multiple lessons in which architecture students gain access to skilled designers' level within the studio environment [9]. Different researchers have classified the design process phases in different ways. According to Soliman (2017) architectural practice model (Fig. 1) contains four major phases: (a) Programming Phases; (b) Schematic Design Phase; (c) Design development phase; and (d) Construction Documents Phase. [10,p.204-217]

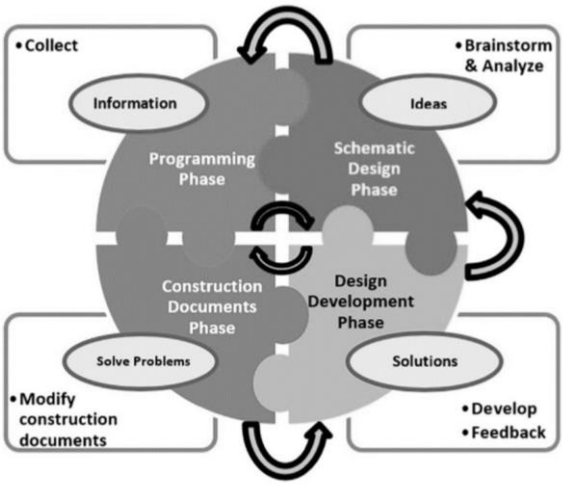


Figure 1: Design process model according to Soliman [10,p.204-217]

According to Rahbarianyazd and Nia (2019), [11]the design process has more liner characteristics (Fig. 2), that begin with the problem conducting. The designers identify the issue before moving on to the analysis phase. They carry out formulations, articulations, transformations, problem reframing, and research. All of these actions contribute to a better understanding of the project's scope and its surroundings. The analysis phase, according to this proposal, leads to the synthesis phase, where creating alternatives and generating solutions for the design problem, The outcome that results from the analysis phase takes to the third phase which is the evaluation phase, where the students should decide the optimum solution for their design according to the previous phase, The evolution phase is followed by the solution phase, which is the design's final stages. Prototyping, composing, modeling, planning, and producing precise designs are all involved with it. This procedure progresses linearly, with all phases having the option of returning to the previous phase. The back-and-forth movement

can only be accommodated inside neighboring in-between periods. It recognizes returning to the problem after the synthesis, evaluation, and solution phases. (Rahbarianyazd, 2019)

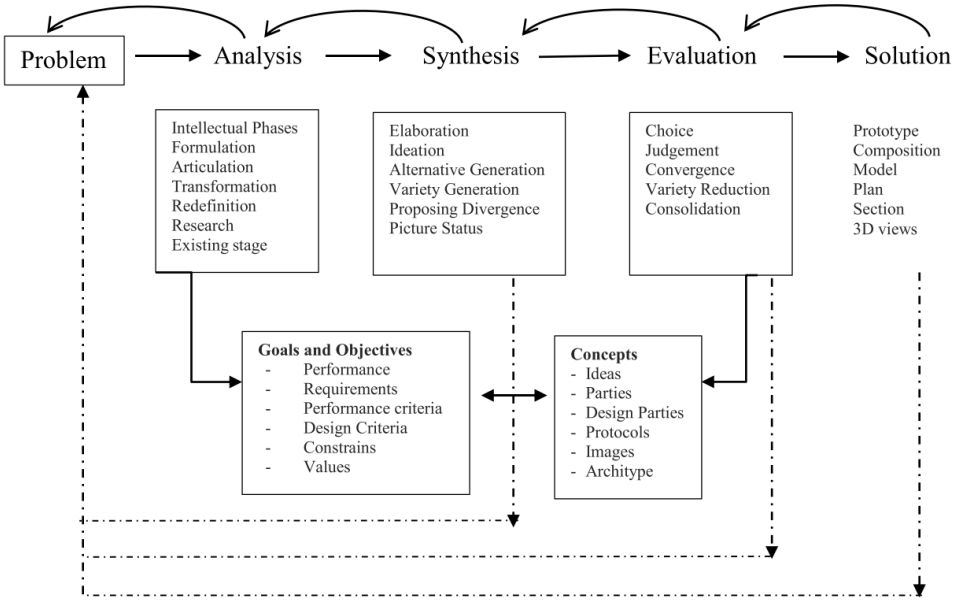


Figure 2: Design process of architectural practice [11]

2.3 Design teaching.

Ledewitz (1985) identified three teaching-related features of design learning: (1) education and training (2) acquiring new language skills, and (3) developing architectural thinking. In the design studio, students study all three of these components simultaneously while also being taught them. Different design process models have been embraced as the primary methods in developing design courses by educational institutions [12]. According to the (RIBA), design teaching should consist of seven phases, the first one is Strategic Definition which outlines the main requirement of the project that includes function, site assessment, and client requirement, This phase is followed by the Preparation and Briefing phase, which should include the sustainable options, site outcomes, project programming, and pre-construction plan, then the third phase comes, which is Concept Design, where the architects should prepare architectural concept incorporating strategic engineering requirements and aligned to project strategies and outline specification, moving to the fourth phase, which is Spatial Coordination, at the end of this phase Architectural and engineering data should be spatially coordinated, this phase is followed by Technical Design phase, where all construction decision should be taken, and that led to the Manufacturing and Construction phase where details of the structure and material and drawing should be done and finally, the Handover phase where the final presentation is prepared, and there is an additional step, the use phase, where after occupation assessment should takeover to have a clear feedback and enhance the next project (RIBA, 2020). Architecture schools used those steps to build the educational models.

2.4 What is a design critique?

Going through the design process in the pedagogy course, critique will take place as a vital tool in it. According to Silverman, critique is an action that uses judgments to pinpoint issues, and defines design criticism as comments, queries, and suggestions related to a project. Utaberta, et al. (2013) Describe critique as a discussion that improves understanding of design circumstances, they contend that the act of critiquing involves promoting the identification and solution of design problems [13].

Since critique sessions where the core of teaching architecture design in beaux-art, it was also considered the assessment tool in the design studio, and well-designed assessments provide clear

expectations and chances for students to practice and receive feedback and understanding, additionally, having awareness of the process of criticism would enable the students to demand more from the critic rather than just accept it [14].

2.5 Classification of Architectural Criticism

The outcomes of what takes place in a person's thoughts and what transpires between two distinct individuals in a critique session can differ, so different styles of critique between different styles of students with different personalities and abilities can give different outcomes. Accordingly, there are many classifications for architecture studio critique sessions, Cikis classifies nine styles[15]:

1. Individual critique: this is a one-to-one relationship and it is suitable for students who tend to be shy.
2. Formative critique: It starts during the early design phases and continues throughout the project and all of the different phases. This is the most typical kind of criticism, It helped students develop through the different phases.
3. Summative Critique: when critique will be given only at the final step of the design by a jury, researches demonstrates that students frequently find these critiques frustrating because they were unable to act on the advices given to enhance the project's artwork or design. According to instructors, the purpose of the critique is to help students learn how to assess, consider, and develop their critical judgment.
4. Peer Critique: These are collaborative tasks in critique between students, with the instructor serving as a facilitator. The student group usually divides up into smaller sub-groups, and each sub-groups reviews the work of members of either their sub-groups or that of another sub-groups, criteria should be given to the students by the instructors, so the session will be more academic and productive.
5. Group Critique: This is the type of critiquing session that occurs most frequently. A group of students participates in an evaluation by one or more teachers, The tutor typically leads these criticisms. Students can see how different viewpoints and stances taken by teachers can appear to be at odds with one another, and how disagreements amongst instructors can be shown in critiques. This is essential because it demonstrates that there is more than one authentic path.
6. Public Critique: where a professional from another department or business invited to participate in the review panel. tudents can benefit from outside feedback and experience from a different perspective.
7. Written Critique (May be Online Form): Before criticizing, the criteria for comments must be discussed. This style allows expanding more on each comment and also makes it simpler to consider input.
8. Seminars: These kinds of critiquing sessions typically take place at a table without any hierarchy, which will encourage shy students and more reserved participants to participate.
9. Panel Discussion: The panel is used to discuss projects that were either chosen at random or on purpose by the instructors, who were unaware of which student they belonged to. These dialogues, which take place in a participatory setting, are efficient teaching tools.

Gozde and Yasemin (2018) distinguished in study of third-year students that three critique styles are the most effective and frequently used in academic their settings: [16]

- Desk critique: Desk reviews occur during the studio course's semester (usually 12–16 weeks). Students are given an insight into the procedure from the instructor's standpoint through this kind of critique. However, depending on the relationship between the student and the instructor, various students will be able to take advantage of a critique and turn it into feedback, Due to the ability of instructors to closely monitor student development, it seems to be the most successful critique technique in the design studio [17].

- Pin-up critique: Using interim or pin-up criticisms, students can refine their projects. Pin-up critiques, according to Dannels, are verbal presentations of a project in which students exhibit their materials on a wall and the instructor offers feedback. [20,p.136-60], Pin-ups can occasionally be held in public settings where students can obtain feedback from their instructors and their peers students describe their work in pin-up evaluations, and professors offer their thoughts on what they observe and sense.
- Group critique: In group criticism, teachers and students assemble around a desk to discuss the given works of each student Each student can listen to and watch the growth of other pupils using this strategy. According to Farivarsadri group critiques are most helpful when they are conducted at the start of the design semester, when students are considering potential design solutions for the given project. Students can observe each other's potential solutions through group evaluations, which may inspire them to come up with their alternatives. [18]Students who are uncomfortable speaking in front of groups may feel more at ease participating in group critiques because of the informal environment, Sagun emphasizes that by actively critiquing other project solutions, students can develop their design concepts through group critiques [20,p.136-60] [19].

3. Research method and procedure

3.1 Case study:

The design course lasts for (14 weeks) and has been subdivided into 5 phases. These phases have been explained to the students at the beginning of each semester to determine the relationship between the design phases and the critique forms and which one is preferred at which phase:

1. **Data collection phase (2 weeks):** Students have to perform an in-depth investigation of all facets of the design problem., which starts with site analysis, topography, surroundings, accessibility, environmental issues, and climate, it also includes analysis of all this information and ends with the preliminary decisions.
2. **Ideas and concept phase (2 weeks):** Students should think about the theme they will use to develop their projects and their major ideas.
3. **Project forming phase (4 weeks):** The primary project masses should be developed here; therefore, the students are responsible for designing the mass that matches the previously chosen concept..
4. **Design development phase (4 weeks):** Drawings and details should be settled before the end of this phase, and all major decisions should be made.
5. **Final production phase (2 weeks):** Only minor considerations concerning the aesthetics of the final presentation need to be made at this point.

Each design phase included three different styles of criticism for the students from two main instructors and two assistants. A questionnaire was distributed to students at the end of the academic semester. The questionnaire was divided into five sections, each of which focused on a different design phase and included questions about each type of critique, the questionnaires include different types of questions the first three questions were mainly about which critique the students prefer more, the second tow questions were mainly about reasons the students may favor one type of critique over other,

3.2 Sample group:

To analyze the effect of different critique styles on different design phases, (30) third-year architecture students at Tishk International University – Iraq, were chosen from the (2022-2023) academic year fall and spring semesters. Those students were chosen for four main reasons: the first is that the project chosen at this stage is more complex and requires constant criticism. The second is that, third-stage students are mature enough to aware about of the project requirements than the previous stages and are more able to determine what the project needs. The third is that, the three types of criticism were applied during each phase of the design. Finally, the students in their third year are more accustomed

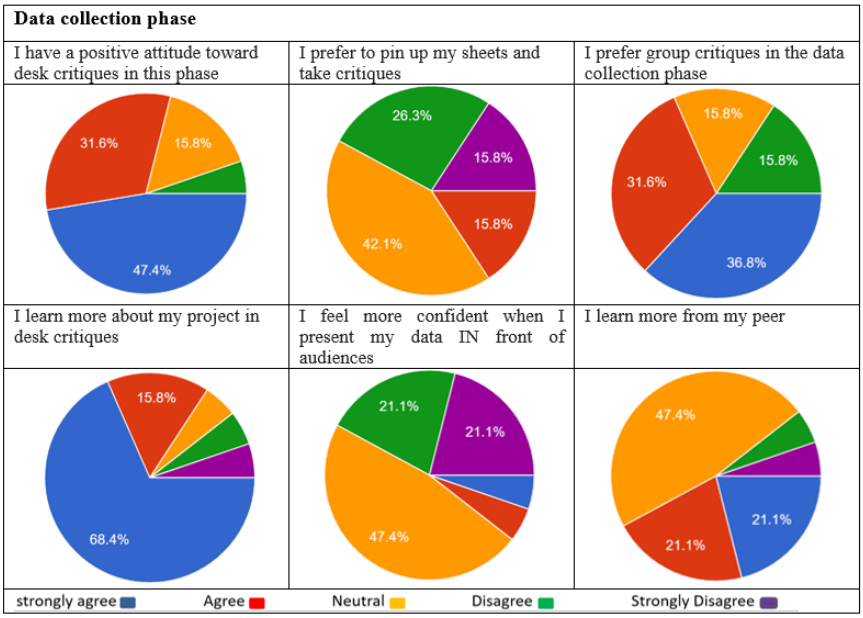
to various forms of criticism than those in their first and second years, at the end of the final phase a questionnaire papers were distributed to the students, excel program was used to collect data and to find percentages of the questionnaire.

4. Results:

When it was related to the (data collection phase) the results obtained from questionnaire show (Table 1):

1. Approximately half of the students strongly agree that they have a positive attitude toward desk critiques in this phase.
2. And high ratio of the investigated students (42%) has a neutral attitude towards pin-up critique in this phase.
3. Only (15.8 %) of the students disagreed with the statement (I prefer group critiques in the data collection phase).
4. A (68%) of the students strongly agreed that they learned more about their project in desk critiques.
5. A (47%) of the students answered neutral to the question about their confidence when it comes to presenting their work in this design phase.
6. When the students were asked about learning from their peers 47% of the students answered were neutral in this phase.

Table 1: The results obtained from a questionnaire of the data collection phase (Researcher)

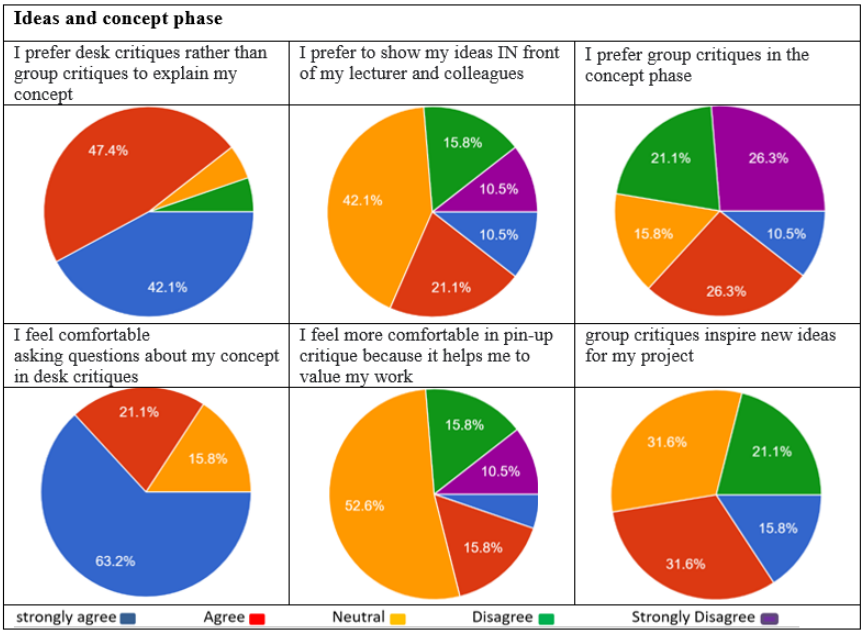


When it was related to the (ideas and concept phase) the results obtained from questionnaire show (Table 2):

1. When the students were asked if they preferred desk critiques in this phase, (47%) of them agreed that they did.
2. A (42%) of the students answered neutral to the statement (I prefer to show my ideas in front of my lecturer and colleagues).
3. Only (10%) of the students prefer group critique in this phase while (30%) of the students answered strongly disagree with that statement.
4. A (63%) of the students feel more comfortable asking questions about their concepts in desk critiques in this phase.

5. The potential of pin-up critique to help students value their work is viewed neutrally by (52%) of them.
6. A (21%) of the students disagreed with the statement that group critique inspires new ideas while (31%) of the students agreed on that statement and (31%) answered neutral and only (15%) of the students answered strongly agreed on same statement.

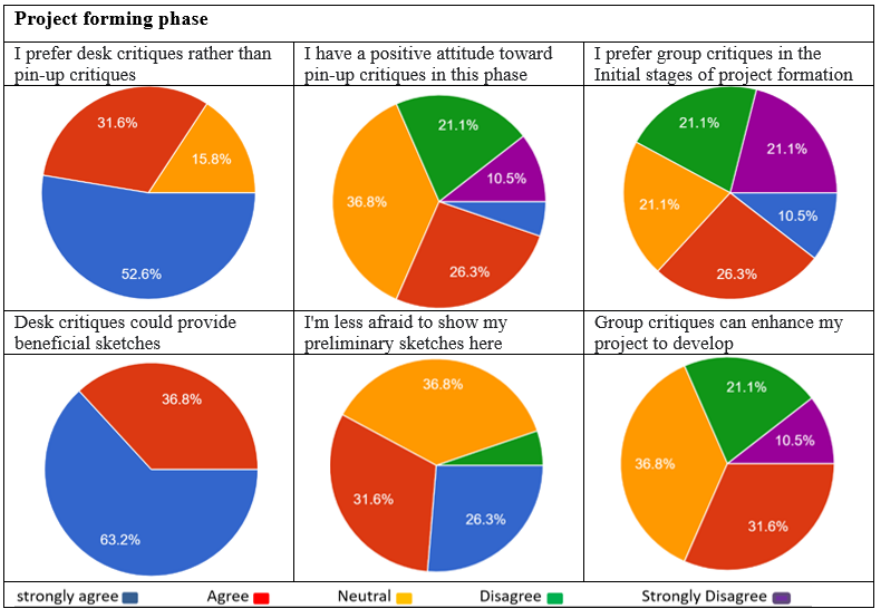
Table 2: The results obtained from a questionnaire of ideas and concept phase



When it was related to the (Project forming phase) the results obtained from questionnaire show: (Table 3):

1. While (15%) of the students have a neutral opinion of it, (52%) of the students prefer desk critiques over pin-up critiques.
2. A (36%) of the students show a neutral attitude towards pin-up critiques in this phase.
3. A (21%) of the students answered strongly disagree with the statement (I prefer group critiques in the Initial stages of project formation).
4. The majority of the students strongly agreed that desk critiques could provide beneficial sketches in this phase.
5. With a (36%) percentage, the students have an indifferent opinion regarding the phrase (I'm less afraid to display my poor sketches here).
6. A (31%) of the students think that group critique can enhance new ideas.

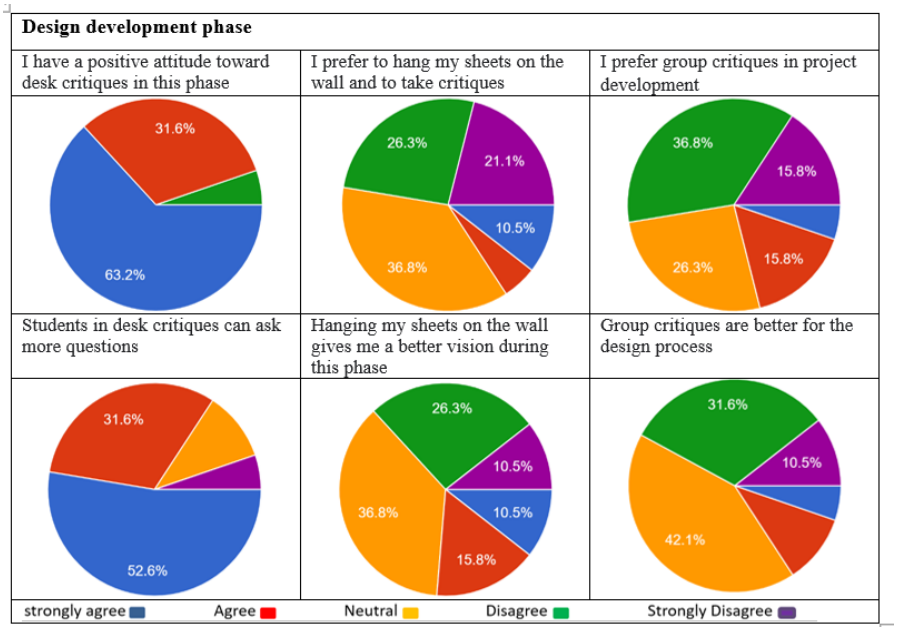
Table 3: The results obtained from a questionnaire of the project forming phase (Researcher)



When it was related to the (Design development phase) the results obtained from questionnaire show (Table 4):

1. A (63%) of the students strongly agree with the statement (I have a positive attitude toward desk critiques in this phase).
2. A (26%) of the students strongly disagree with the statement (I prefer to hang my sheets on the wall and to take critiques).
3. A (36%) of the students don't think that group critique is important in project development,
4. While (52%) of the students think that they are more able to ask questions in desk critiques during this phase.
5. A (36%) of the students have a neutral attitude towards the statement (Hanging my sheets on the wall gives me a better vision during this phase)
6. And a (31%) of the students do not think that Group critiques are better for the design process.

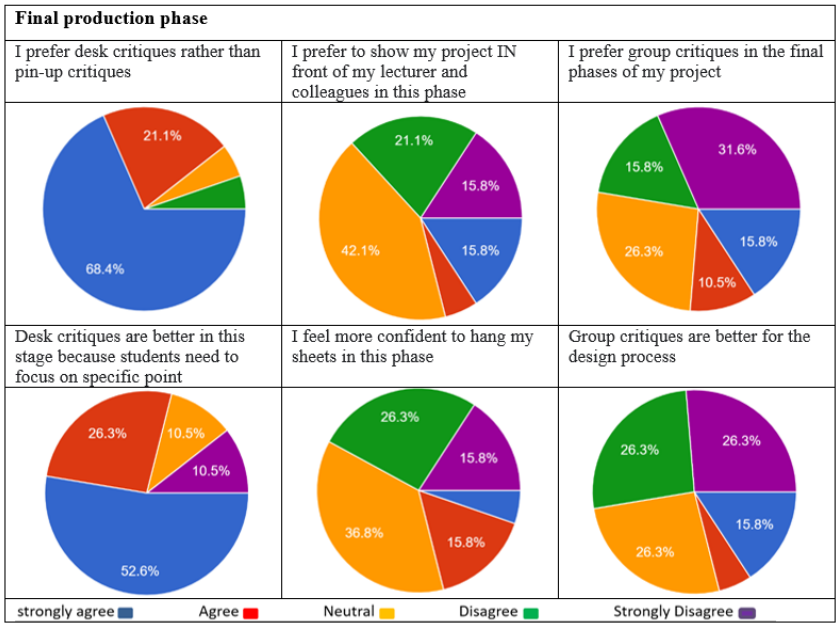
Table 4: The results obtained from a questionnaire of the design development phase (Researcher)



When it was related to the (Final production phase) the results obtained from questionnaire show(Table 5):

1. A (68%) of the students strongly agree that desk critique is more beneficial than pin-up critique in this phase of their design
2. While (42%) of the students answered neutral towards the statement (I prefer to show my project in front of my lecturer and colleagues in this phase)
3. A (31%) of the students strongly disagreed that group critiques are helpful in this phase more than other types of critique
4. A (52%) of the students agreed that Desk critiques are better in this stage because they need to focus on a specific point
5. A (15%) of the students don't feel confident about hanging their sheets in this phase
6. And finally, a (26%) of the students answered neutral towards the statement (Group critiques are better for the design process).

Table 5: The results obtained from a questionnaire of the final production phase (Researcher)



5. Conclusions

1. In comparison to other critique kinds, students prefer desk critiques throughout all design phases because they feel more comfortable asking questions also sketches could be provided in this sort of review.
2. In the first three phases of design, students' attitudes regarding pin-up critique are neutral, but as the design moves into a more thorough phases, they start to question its value for them because detailed feedback can't be given.
3. The Group critique type is preferred in the first and second design phases because students can learn more from their peers during these phases and because they wish to maintain their independence as the design develops.
4. Students favor desk critique and group critique more than pin-up critique because they feel less hesitant, but each style of critique has its preferences in different phases of design.

6. Acknowledgment

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7. Conflict of interest

The author declare that they have no conflicts of interest with any other research and other universities

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