

# ANALYSIS OF THE COMBINED APPLICATION OF GROUP DYNAMICS IN THE CLASSROOM FOR UNIVERSITY STUDENTS

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## Abstract

Collaborative learning and group activities play a vital role not only in increasing academic knowledge but also in cultivating indispensable professional and social skills, such as teamwork, effective meetings, decision making, and empathy for problem solving, communication, motivation, leadership and conflict resolution.

This article addresses how different group work techniques can be combined, such as Fishbowl, Role-playing and Brainstorming, in the same group learning dynamic, seeking motivation, involvement and emotional learning of students, in addition to preparing them for professional scenarios from the real world.

The work was carried out with a total of 75 students, applying the aforementioned techniques and carrying out a subsequent quantitative investigation on 100% of the participants, to assess motivation and qualitative investigation to extract possible keys for improvement.

The 90% of the participants positively assessed the activity, stating that they had learned a lot, found it highly enjoyable, and regarded it as highly useful and applicable in the professional world.

Group dynamics allowed students to learn autonomously and develop their analytical and decision-making skills in a more efficient way.

Furthermore, the combination of different group dynamics techniques at the same time, allows for more comprehensive and enriching experiences for students, especially in subjects with large groups. This enables students to participate by taking on different roles in each of the proposed dynamics simultaneously.

Keywords: Active learning, emotional learning, dynamic group, Fishbowl, Role-playing, Brainstorming.

## 1 INTRODUCTION

Currently, companies increasingly emphasize teamwork. In most cases, achieving satisfactory results depends on people's ability to work together through the effective coordination of their efforts. To achieve this, teamwork has gained increasing importance [1].

The academic community must be aware that knowledge is acquired more effectively when working in groups. Additionally, when students collaborate in groups, they develop skills and competencies that will be useful in their future professional lives [2].

Group dynamics tools are a set of techniques and procedures with a logical structure, used to facilitate the functioning of a group to achieve predefined objectives. There are various types of group dynamics, but in general, they all, on one hand, facilitate knowledge, communication, and relationships among team members, and on the other hand, they develop learning that would be more challenging to achieve through other means [3].

This article is based on the combination of 3 group dynamics worked on simultaneously, aiming for greater participation and integration of all students in a class, not just those directly involved. For this purpose, the authors propose the interaction of the following 3 group dynamics [4]:

- **Role-playing:** Students act as if they were on a stage, but the script is not completely defined. The individuals involved interact freely within the limits or roles established by the initial instructions, adapting each role to others. If necessary, the teacher can intervene by providing additional instructions to the "actors" to explore aspects that may not have been adequately considered. The goal is to broaden the field of experiences or perspectives explored by the participants.

- **Brainstorming:** A technique used to generate a large number of ideas. Participants express their ideas as they come to mind without worrying about their applicability or other mental filters. It can be carried out in various variations: participants contribute their ideas orally without establishing a specific order, following a specific order, or using paper notes to collect ideas (facilitating easier reorganization).
- **Fishbowl (Fish tank):** Involves the creation of two concentric circles of people, where one of them (the inner circle) is dedicated to discussing or acting on a topic while the other group observes. Observers may or may not have predefined observation criteria. This technique can be used for observers to provide feedback to the participants. During this phase, participants cannot intervene to contradict the opinions of the observers; they must listen and take note of observations that can help them improve their performance as members of group meetings [5].

The dynamic consists of a role-play that simulates a meeting in a company, during which students are required to propose the launch of a new product, initially using the brainstorming tool. Simultaneously, the rest of the students in the class act as observers of the scene using the fishbowl technique.

## 2 METHODOLOGY

### 2.1 Objectives

Through this group dynamics, the goal is to motivate the student, foster their involvement, and promote emotional learning. This aims to enhance the students' management and social skills related to teamwork, effective meetings, decision-making, verbal communication, motivation, leadership, empathy, and conflict resolution.

Simultaneously, efforts are made to ensure that students not only understand but can distinguish the phases of a meeting, optimize each phase, and effectively face a meeting. The intention is also for the student to become familiar with the brainstorming technique, enabling them to apply it in the business context for the generation of new ideas.

### 2.2 Design of the group dynamic

This dynamic has been implemented within the topic of 'High-Performance Teams' in the 'Human Resource Management' subject of the 4th year of the Degree in Business Administration at the Universitat Politècnica de València, Alcoy Campus.

The dynamic involves conducting a role-playing exercise that simulates a meeting in a company to practice all the stages of a meeting. With this dynamic, the aim is to combine three group dynamics techniques (Role-playing, Brainstorming, and Fishbowl) into a single practice. These techniques are arranged and executed simultaneously, with an estimated total duration of 1 hour.:

*Table 1. Developed group dynamics.*

<i>Dynamic</i>	<i>To Do</i>	<i>Output</i>
Role-playing	Students are required to participate in all phases of a meeting according to their assigned roles.	To understand the stages of a meeting. To be able to facilitate and participate in a meeting efficiently.
Brainstorming	Participants are tasked with generating ideas for new products to be launched by the company.	To be familiar with and practice the brainstorming technique and be capable of applying it in the professional world.
Fishbowl	Students are expected to observe the progress of the meeting and complete the corresponding observation guide.	To analyze the phases of the meeting and the behaviors of its participants in order to propose opportunities for improvement

For this purpose, initially, the entire class will prepare the 'Meeting Call and Agenda,' which a voluntary student will fill out on the classroom computer projected to the entire class:

## CALL/ AGENDA OF THE MEETING

- **PLACE:**
- **DATE:**
- **SCHEDULE:**
- **ASSISTANTS:**
- **TOPIC OF THE MEETING:**
- **AGENDA:**

TOPIC	DURATION:
-	
-	
-	

- **PREVIOUS WORK:** Data from each department to analyze at the meeting

*Figure 1. Call and agenda of the meeting.*

Next, the role-playing scenario is introduced, which involves a meeting at a beer manufacturing company. The meeting begins with a brainstorming session on ideas for launching a new product (such as a new beer flavor, new packaging, or entering a new market). The goal is to ultimately choose the best option for the company.

Nine volunteers from the class are selected to form a circle, with each assuming the role of a company executive: Manager, Marketing Director, Sales Director, Production Director, Purchasing Director, Human Resources Director, Logistics Director, Finance Director, and R&D Director.

In addition, beforehand, five out of these nine students are discreetly given a note with a specific role that they are to adopt during the meeting. The notes provided to each student are outlined below, describing behaviors they are to embody during the session (in addition to their role as Director of XXX), such as leader, critical behavior, encouraging behavior, disengaged behavior, or initiating behavior (based on some of Belbin's team roles) [6]:

**YOU ARE THE MEETING LEADER:**

You are the meeting leader. *You must guide the meeting towards the expected objectives:*

- Clarify: objectives, ensure understanding of discussed topics
- Control: regulate the meeting, manage time, establish rules
- Create a positive working atmosphere
- Energize the group

*PLEASE! DO NOT DISCLOSE YOUR ROLE TO ANY COLLEAGUE*

**YOU EXHIBIT A 'CRITICAL' BEHAVIOR IN THE MEETING:**

You are negative and resistant, opposing without 'reason,' attempting to revisit or linger on a matter that the group has rejected or moved past. You use the group as an audience to express your personal feelings and ideas, which are unrelated to the group.

*PLEASE! DO NOT DISCLOSE YOUR ROLE TO ANY COLLEAGUE*

**YOU EXHIBIT AN 'ENCOURAGING' BEHAVIOR IN THE MEETING:**

You praise, agree, and accept the contributions of others. Express warmth and solidarity towards fellow members. Demonstrate that you understand and accept the viewpoints, ideas, and suggestions of others. Act as a mediator in differences that arise among others. Attempt to reconcile disagreements and ease tension in conflict situations.

*PLEASE! DO NOT DISCLOSE YOUR ROLE TO ANY COLLEAGUE*

**YOU EXHIBIT A 'DISENGAGED' BEHAVIOR IN THE MEETING:**

You flaunt your lack of integration with the group. This attitude can take the form of cynicism, heavy joking, indifference, etc.

*PLEASE! DO NOT DISCLOSE YOUR ROLE TO ANY COLLEAGUE*

**YOU HAVE AN 'INITIATOR-CONTRIBUTOR' BEHAVIOR IN THE MEETING:**

Suggest or propose new ideas or new ways to consider the group's problem or objective. Recommend new goals, a fresh definition of the problem, solutions, ways to address the challenges facing the group, and new rules for organizing the group for the task at hand.

*PLEASE! DO NOT DISCLOSE YOUR ROLE TO ANY COLLEAGUE*

Figure 2. Meeting roles.

At the same time, two volunteers are selected to complete the attached "Meeting Minutes" document on the computer projected in the room during the meeting:

MEETING MINUTES																																											
<b>MEETING DATE:</b>																																											
<b>PARTICIPANTS:</b>																																											
<b>MEETING OBJECTIVE::</b>																																											
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Figure 3. Meeting minutes.

The remaining students are to act as observers of the meeting and fill out an “Meeting Observation Guide”:

Table 2. Meeting observation guide.

Questions	Comments
1.- Were all participants clear about the meeting's objective?	
2.- Has the meeting's objective been achieved? If not, why do you think it has not been accomplished?	
3.- Was there a clear meeting leader?	
<b>Task-related behaviors</b>	
4. Record observations aimed at keeping the group on task (task roles)	
5. Who had the most influence in keeping the group focused on the task? What behavior(s) led to that conclusion?	
<b>Maintenance behaviors (maintenance roles)</b>	
6. Did everyone participate?	
7. Were all opinions heard?	
8. Who had the most influence in maintaining the group's climate? What behavior(s) led to that conclusion?	
Other comments, observations:	

The meeting concludes when, after presenting different options for a new product launch and discussing the pros and cons of each (each participant providing input from the perspective of their department), a consensus is reached on which new product will ultimately be launched.

Once the role-playing exercise is finished, the remaining student observers share their observations on how they perceived the meeting, based on the questions in the observation guide related to participation and its evolution.

In the end, it is revealed that there were 5 students with special behavioral roles, which is why they acted the way they did.

### 3 RESULTS

The application of group dynamics in the classroom with university students has yielded various positive outcomes. Students have positively appreciated the interaction among themselves, as these dynamics promote teamwork, foster social skills, and can enhance the learning environment. Regarding the observed outcomes within the group:

- Collaboration has been encouraged: Students have had the opportunity to work together in problem-solving. This promotes collaboration and the exchange of ideas, enriching the learning experience.
- Social skills have been developed: Participating in group activities has helped them enhance their social skills, such as effective communication, empathy, and active listening. These aspects are crucial both in the academic and professional environments.
- Active learning: Students have taken a more active and participatory approach. This can increase information retention and comprehension of concepts as it encourages debate and collective reflection.
- Diversity of perspectives: They have been able to appreciate different perspectives, experiences, and knowledge, enriching discussions and leading to more creative and comprehensive solutions.
- Improvement of the emotional classroom climate: A positive atmosphere was observed in the classroom where students felt more motivated and engaged as part of a group, contributing significantly.
- Development of leadership skills: The dynamics provided students with the opportunity to develop leadership and team management skills.
- Immediate feedback: During group dynamics, students were able to receive immediate feedback from their peers, facilitating the identification of areas for improvement and promoting continuous learning.

### 4 CONCLUSIONS

The use of group dynamics in university classrooms not only enhances student engagement and motivation but also serves as a resource that facilitates emotional learning, especially in the age of the internet and social media, where capturing students' attention and sparking interest is increasingly challenging.

Combining three group dynamics allows for better integration and participation of all students in the class, not just those actively involved in role-playing.

Specifically, these three group dynamics tools, worked on simultaneously, have provided students with the following advantages:

- Enhancement of the ability to conduct effective meetings: Learning to plan and prepare a meeting, implementing techniques for participation and meeting facilitation, generating commitments and action plans through minutes, and identifying critical aspects to evaluate in a meeting.
- Knowledge and application of the Brainstorming tool: This tool fosters teamwork and commitment, encourages equitable participation and motivation, stimulates students' creativity, enhances listening skills, helps focus attention, and creates a trusting environment.
- Improvement and development of essential management and social skills in the current workplace environment: These include teamwork, communication, leadership, motivation, conflict resolution, problem analysis, and decision-making.

It is important to note that the success of group dynamics relies heavily on planning, structuring, and relevance with respect to learning objectives. Additionally, it is necessary to take into account the individual preferences and needs of students to ensure a positive and effective experience.

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