

The group as learning space in higher education

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1 Summary

This is a resource that delves into the role and efficacy of group work in higher education, particularly in STEAM disciplines (Science, Technology, Engineering, Arts, and Mathematics). Collaborative learning and group activities are crucial not only for enhancing academic knowledge but also for developing essential professional skills like teamwork, communication, initiative, and problem-solving. The document underscores the increasing demand from professional sectors for these competencies, which traditional education methods focused on individual work may not sufficiently foster. Various group work techniques such as role-playing, brainstorming, and jigsaw activities are explored, emphasizing their potential to engage students actively and prepare them for real-world professional scenarios.

The document also provides practical guidelines for educators on designing and implementing effective group activities. It emphasizes the importance of aligning these activities with course objectives, preparing clear instructions, and anticipating potential challenges. It highlights the critical role of trainers in facilitating these activities, ensuring a supportive and engaging learning environment, and adapting to the needs of diverse student groups. The application of group dynamics is discussed across various contexts, including the socio-political and workplace spheres, to achieve a range of objectives from fostering participation to facilitating self-assessment. This comprehensive approach to group work in education aims to bridge the gap between academic learning and professional skill development, advocating for a shift in teaching methodologies to better prepare students for their future careers.

2 Introduction

First, before I delve into the ideas I want to convey in this document, I would like to emphasize the purpose behind writing these notes. I do not aim to create a standalone document that can be useful but rather a supplement to the learning we will build together during the workshop. This way, I will have more freedom to act, knowing that I can refer you to these notes without the need to present their entire content in class or create support videos for these topics. Additionally, I believe this document can help you recall the ideas I present without taking extensive notes. Therefore, the document is useful to the extent that you attend the workshop, and the workshop is useful to the extent that you read this document.

Finally, I would like to mention that the texts I reference are available in the ICE archive or the UPV library.

3 Need for groups in higher education

I can start this section by defining a group and providing a more or less exhaustive classification of the different types of groups. But I'm not going to do that. Fabra's book (1994) adequately summarizes these aspects for those interested.

The workshop's objective is for us to experience a series of dynamics so that teachers convinced of the need to use group techniques with their students can do so more effectively and satisfactorily. However, I have chosen to dedicate this first section to justifying the need for group activities in university education because I believe that among the workshop attendees, there will be people wondering if it is really necessary to do these things in class.

I consider that there are two perspectives to justify the importance of group work in university education. First, "university" knowledge is better learned when working in groups. The second is that when students work in groups, they learn some competencies/skills they will need when working as professionals.

My background in these matters is more associated with industrial psychology and the groups/teams used in organizations than didactics. Therefore, I will not try to justify using groups by arguing that it leads to students learning more (annex 1 of this document aims to provide more ideas for reflection from a didactic point of view). It may be true, or it may not be. Some scientific articles defend the former, and many teachers whose intuition or teaching practice manifests the latter.

I will present what companies will demand from the professionals we want to train. This includes, among other things, being good group managers. Therefore, I believe that we as teachers must help students to know, practice, and master the group techniques that they will have to use in their future work. I don't know if you will share this approach with me. I would like to start a dialogue and for us to be able to present our points of view. However, I must wait until we are together in the classroom. For now, I must content myself with offering you, schematically, the personal path that has led me to the deep conviction of the need to use group techniques with my students. I trust that these ideas will help you to reflect on the topic.

I must confess that I find it extremely complicated to design teaching techniques if I am unclear about the objective or function I intend to achieve through those techniques. Also, to understand my function, I need to frame it within the function of the system in which I work. Therefore, the first thing I consulted was the functions that the University is expected to perform in service to society, and I discovered that they are still the ones advocated by Ortega in 1930 (Primo Yúfera, 1994:371) and that we can summarize as (This enumeration also includes the ideas contained in the draft

statutes of the Universidad Politécnica de Valencia (January 2003) and (Consejo de Universidades, 1987a; Consejo de Universidades, 1987b)):

- Train researchers: individuals who, by nature, doubt current methods and techniques and their principles, seeking the creation, development, transmission, and critique of science, technology, and culture.
- Train professionals: individuals with the necessary scientific foundation, who are familiar with the methods or techniques of their profession and their time, to apply them with faith in their value and confidence in their relevance in professional activities.
- Personal and cultural development of individuals, without forgetting support for the cultural development of society and the environment.

Focusing on the second of these functions, that of training professionals, my concern shifted to understanding what kind of professionals we train. I acknowledge that the data I have is related to the degree program I teach (Industrial Engineering at the ETSII). However, I believe it could be extended to other engineering disciplines (I know the situation I am describing does not apply to other humanities-based degrees. However, it is possible that the last three lines of this paragraph still apply to graduates in your programs, in which case, my line of argument remains valid). Most of our engineers (Universidad Politécnica de Valencia) are hired for managerial positions: 8% as managers, 23% in senior management, and 37% in middle management (De Miguel Fernández, 1995). The estimate of engineers employed through self-employment is 5.2%, and 2.6% are engaged in operational-level jobs (García Montalvo, 2001). This implies that most of our students will work with people under their supervision and will be responsible for facilitating the tasks of their group of collaborators: they will lead meetings, promote or not promote group work, resort to their ideas or not...

To fill these managerial positions, companies demand graduates with specific skills and competencies, which I will summarize below (Cacace, 1994; García del Junco and García, 1995; Tynjälä, 1998; Vila Lladosa, 1997) (Annexes 3 and 4 of Allan (1996) also define different "generic" and "transferable" skills):

- Initiative, dynamism, and creativity to think and act independently.
- Interaction among people—clients, colleagues, superiors, and subordinates—and teamwork.
- Responsible for evaluating, assessing, and certifying the quality of products and services.
- Appropriate use of communication: speaking, listening, writing, and reading fluently and correctly. Interpreting messages accurately. Oral presentations.
- Generating, discussing, and evaluating logical arguments, including deductive and inductive thinking.
- Identifying problems, determining different solutions and their consequences.

- Selecting among alternatives and developing the chosen solution. Applying problem-solving procedures in practice with conditions of incomplete or ambiguous information.
- Being able to take risks in decision-making.
- Deciding what information is relevant to solve a problem, knowing how to find and interpret it.
- Planning activity management. Establishing objectives.
- Capacity for continuous learning.
- Embracing a culture of change and flexibility.
- Capacity for critical self-reflection and learning from experience.
- Ability to solve a multitude of anticipated problems and deal with the unforeseen.

Almost unanimous agreement exists on the importance of fostering these competencies and skills in universities. However, almost all criticisms agree: professionals often work in teams to achieve common goals, but in universities, the emphasis is on individual work, memorization, and reproduction of knowledge instead of developing the skills they will need in their professional lives (García del Junco and García, 1995; García Montalvo, 2001; Tynjälä, 1998).

At this point, it seemed evident that I should use group techniques with my students to develop the skills they need in their professional work.

You could argue that it would be sufficient to have specific subjects where these techniques/skills are taught. This way, the rest of the teachers would not have to worry about incorporating group dynamics into their classes.

Undoubtedly, these specific subjects are necessary. However, I believe that students need many "impacts" for there to be a possibility of a behavior change. Suppose we want the companies of tomorrow to be more participative and to have a space for effective group work. In that case, we will have to start creating this reality in the present with our students in a more participative and group-oriented educational environment.

4 How to encourage group work among our students.

I cannot be certain that the arguments presented in the previous section or any of the documents attached as annexes have convinced you of the need to use groups in higher education. If I have succeeded, you may be wondering how to effectively introduce group work so that students learn better or develop professional skills (You might also be wondering how to assess group work. But we would need to propose a workshop to delve into it in depth). I believe a good starting point is to visit this pages , where you will find information on the following topics related to group work:

- [Group Work in the Classroom: Small-Group Tasks | Centre for Teaching Excellence \(uwaterloo.ca\)](https://www.uwaterloo.ca/teaching-excellence/teaching-strategies/teaching-strategies-articles/group-work-in-the-classroom-small-group-tasks)

- [Group Work in the Classroom: Types of Small Groups | Centre for Teaching Excellence \(uwaterloo.ca\)](#)
- [Implementing group work in the classroom\(*\)](#)
- [Meeting Strategies for Group Work | Centre for Teaching Excellence \(uwaterloo.ca\)](#)
- [When Things Go Wrong: Handling Problems During In-Class Group Work \(*\)](#)
- [Group Decision Making | Centre for Teaching Excellence \(uwaterloo.ca\)](#)
- [Group Work: Assignment of Roles | Centre for Teaching Excellence \(uwaterloo.ca\)](#)
- [Making Group Contracts | Centre for Teaching Excellence \(uwaterloo.ca\)](#)
- [Teamwork Skills: Being an Effective Group Member \(*\)](#)

For this workshop, I do not consider it necessary to add more theories or models to those already presented on that website. What interests me is for you to see some of the group techniques used in companies and to reflect on the advantages and disadvantages of introducing them into your classes. The goal is for you to be able to adapt some of these techniques to use with your students by the end of the workshop. This way, the people attending your classes will become accustomed to using them and will be better prepared to employ them when they are professionals (they will have a model they can copy and improve when they change roles. They are participants now and in companies, they will be the facilitators of these techniques). I aim for this in my classes and invite you to do the same.

To introduce and develop group work for students, we can propose projects (long duration, requiring a plan and a program to complete, students have to spend a considerable amount of time on their own to complete it), tasks, or dynamics (brief, carried out in class, with the teacher playing a very active role in them. You can find more information about group dynamics in Annex 2). In this workshop, we will focus on practicing some dynamics that I have selected:

Role-playing game (dramatization):

- Participants act as if on a stage. However, the "script" is not completely defined. The people involved interact freely within the limits or roles set by the initial instructions, and each adjusts their role to that of others. If desired, the teacher can intervene by giving additional instructions to the "actors" to explore aspects that have not been properly considered. The goal is to expand the field of experiences or points of view explored by the participants.

Fishbowl (Fish tank):

- involves forming two concentric circles of people, one of which (the inner circle) discusses or acts on a topic while the other group observes. The observers may or may not have pre-established observation criteria. Suppose we want to provide immediate feedback to the actors. In that case, we can establish some kind of signal for the observers to emit each time a positive behavior appears in the group. We can also propose that, at the end of the dramatization, the observers

give feedback to the participants (who, during this phase, cannot intervene to refute the observers' opinions - it is about listening and taking note of those observations that can help them improve as participants in group meetings).

Puzzle (jigsaw-integrated panel):

- involves dividing a large group into subgroups (for example, thirty people into six groups of five members). These subgroups interact for a period to carry out a task. After the time is up to share the group's conclusions with the rest of the class, a spokesperson is chosen to present the subgroup's conclusions to the other groups, or a public presentation is made, or an "integrated panel" is created by numbering the members and forming five new groups of six members (all the 1s together, etc. Another option is to use the numbers as a rotation index: the 1s move to another group, the 2s move to two groups... the 5s stay in place). I usually prefer the third option because all participants become spokespersons, making them more responsible for the group task.

Facilitators (Energizers, Ice-breakers):

- short and lighthearted exercises that aim to unleash the participants' creativity, foster a suitable atmosphere in the classroom, and facilitate the development of other dynamics.

Murmurs (buzz):

- allowing students to dialogue in pairs for a brief period (3-5 minutes) to express their doubts or opinions, summarize what has been explained, or highlight what they found most interesting. An alternative presentation of this dynamic is "concentric circles" (two circles are created, one inside and one outside, with students facing each other. The teacher sets a time, and people talk to the person in front of them. When the time is up, one circle rotates in one direction and the other in the opposite direction, forming new pairs that can discuss the same topic or receive new instruction from the teacher).

Snowball (pyramid):

- starts with work in pairs. Then, two pairs come together to form groups of four students who delve into or integrate the pairs' work. Then, two groups of four come together to integrate the opinions of the eight new members, and so on. It can start with pairs created using the murmurs technique and bring the entire class together or finish at any intermediate groups (4, 8, 16...).

Nominal group:

- a short period is set for each participant to write down on a paper the information, proposals, or suggestions that come to mind on the topic. To ensure anonymity, the papers can be collected and redistributed before moving on to the presentation round, where each person reads ONE of the ideas written down. If there are more ideas on the paper, they are saved for the second round and are only presented if another person has not already expressed that idea in the first round. This continues until everyone can express the ideas on their papers.

Brainstorming:

- a technique for generating 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 with multiple variations: participants contribute their ideas orally without establishing a specific order, following a specific order, using paper notes to collect the ideas (which allows for easier reorganization) ...

Multiple voting:

- involves scoring a list of ideas, either by giving points from 1 to 10 to each idea or by restricting the number of votes each person can cast (for example, voting for only the four most important ideas on the list). The ideas are ranked based on the number of votes, and the group discusses and summarizes the results. It can be combined with other techniques such as nominal group or brainstorming. A variant of multiple voting, when there are very few alternatives/ideas, is the "corners" technique (each option is represented on a poster hung in a place in the classroom. Students analyze the options and stand next to the most suitable one. This creates groups that can spend time exchanging their opinions and justifying why they found that option most suitable).

Two columns:

- a technique for evaluating previously selected alternatives (for example, from a multiple vote). Starting with a list of a few ideas, two columns are opened, one for the advantages and one for the disadvantages (more columns can be used if other criteria need to be evaluated). Each column is then filled in for each of the selected ideas. It can be used individually or in a group. When used in a group, it helps to explore the different possibilities of each alternative more deeply. It can be used simultaneously with the "corners" technique.

Ideal group behavior

In my view, what is the main problem for implementing these dynamics? Most of us are ineffective when working in groups, and we transmit that inefficiency to the students.

The main problems I have observed in different group meetings where I have participated, either as a participant or as a trainer, are as follows: we waste a lot of time, we lose many ideas, we "forget" to involve a significant number of people in the group, and above all, we are not aware of how we behave in the group. This is the main problem that generates all the others; if we were aware of our actions, we could detect inappropriate behaviors and take measures to correct them. Intending to help you clarify what I believe should be the behavior of participants in a group that aspires to be efficient, I have prepared this checklist that reflects the functioning of an ideal group:

- Participants actively listen to each other, seeking clarification of ideas and sharing their perceptions of the problem, goals to achieve, and constraints.

- They understand the REAL problem before attempting to solve it. They do not invent constraints beyond the real ones.
- They use techniques to explore different alternatives.
- They use procedures to decide or select information without spending too much time but without neglecting any important contributions.
- They remain focused on the topic, identifying the tasks to be completed and progressing towards their completion.
- They schedule tasks to be carried out and control activities' start and end times.
- They are aware of the roles each has played and have tried to balance the roles within the group.
- They consciously promote the balanced participation of ALL participants.
- They can organize, summarize, and reformulate the contributions made within a group appropriately. They understand and note down the guidelines that allow them to reach solutions.
- Good atmosphere

5 How to design group activities

Preparing group activities requires careful consideration of several important aspects to ensure their successful functioning. While it is not feasible to cover every single step, and there are no guarantees of constant success, it is essential to acknowledge that groups are dynamic entities that continually surprise the facilitator, demanding constant attention and improvisation. Nevertheless, adhering to or adapting these guidelines to your context can better equip you to handle any unexpected challenges.

5.1. Identify the objectives

You should always start here. Clearly define what you aim to achieve with the group dynamics, what you want to highlight, and what knowledge or skills you want to emerge from the activity. Ensure that the proposed activity is closely associated with the course objectives and the class content where it is inserted so that it becomes a tool for students to learn something and does not just become a pastime.

5.2. Prepare the instructions

Explain clearly what is intended to be achieved with the activity, what students should do, what product they should generate as a group, and, if possible, show them an example. Prepare written instructions and keep them visible during the activity, or provide each group or participant a paper copy.

Allow students to ask questions to clarify the activity before it begins, and be patient if they ask repeatedly about things you have just explained or that are written on the papers you provide. Many students are used to fearing mistakes and prefer to stop and ask before taking initiatives that could lead to wrong solutions.

5.3. Estimate the time the group will need and the possible reactions

If necessary, conduct tests to determine the time it would take for you to complete the activities you assign to the students (and multiply that time by a correction factor). Allocate time to discuss the activity, link it to the course objectives, and have the students present their work results and reflections on the process they have followed as a group. Try to anticipate some possible eventualities that may arise during the activity. Visualizing the situation you propose can help you imagine likely scenarios. If possible, prepare an "ice-breaker" to warm up the students before the group activity so that they are prepared to switch to a leading role, changing from mere listeners to active participants.

5.4. Decide on the group size and formation strategy

The group size will depend on the number of students in the class, the objectives pursued, and the type of tasks assigned to the group. It is important to consider the need for diversity, productivity, active participation, and cohesion. Remember that larger groups are more difficult to manage and can create more challenges for the students.

When grouping students, you can allow them to choose voluntarily, select them according to specific criteria, or choose the members randomly.

To ensure success with group activities, it is important to make them as accessible as possible to the students. In my opinion, the most suitable place for group tasks is the classroom. This allows for shared space without adding complications to their schedules. Additionally, it enables observation, evaluation of the process, and correction of undesired behaviors. Remember that one of the group tasks is to distribute individual tasks (to be done independently, not in class), as well as to prepare reports on the group task or evaluate the process. If group members do not complete their individual tasks, the group's outcomes will suffer, as class time should be dedicated to group work.

I will provide an example from my classes: group case resolution. In class, I present the case and objectives and allow time for students to request clarifications.

Individually at home, they read the necessary documentation and theory and outline potential solutions. In a subsequent session, they come together in groups to discuss different alternatives, present arguments, and choose one or more consensus solutions. They prepare a presentation and share it with their peers from other groups (these are the skills I aim to develop in students). In class, time is only allocated for this, not for brainstorming solutions or consulting literature (which should have been done independently at home). When possible, the teacher or students try to implement the proposed solution and discuss its advantages and disadvantages in real-world applications.

7 References

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Annex1 – pags. 141 a 145 (Fabra, 1994)

Conclusiones y recomendaciones

Eficacia del trabajo en equipo

Mucho se ha discutido sobre la eficacia del trabajo en equipo; sin embargo, resulta difícil evaluarlo al menos por dos motivos: en primer lugar, porque existen métodos y técnicas tan distintos que a veces es arriesgado englobarlos bajo una misma denominación; en segundo lugar, por el peso de las condiciones en que se llevan a cabo dichas técnicas (condicionamientos institucionales, formas de constitución de subgrupos, papel del profesorado, normas de funcionamiento, exigencias de la tarea, clima del grupo, etc.), condicionantes que influyen decisivamente en el éxito o fracaso del uso del método.

Evidentemente, nuestra evaluación de las diversas técnicas de trabajo en equipo ha de estar ligada a nuestra concepción de la educación y de las funciones de las instituciones educativas. Si creemos que la educación es solamente transmisión de conocimientos, el trabajo en equipo no es necesario; si consideramos, por el contrario, que educar es promover la comunicación, la cooperación, el espíritu negociador, la facultad de tomar decisiones y de solucionar problemas en situación grupal, entonces sí lo es. Si profesoras y profesores somos sólo expertos en materias de aprendizaje concretas y nos consideramos meros transmisores de conocimientos, las técnicas grupales no son necesarias; si nos percibimos como personas que ayudan a otros seres humanos a desarrollarse intelectual y afectivamente y a adquirir las habilidades necesarias para vivir en sociedad, entonces sí lo son.

Las alternativas al trabajo en equipo son solamente dos: el trabajo individual y la competición. El primero supone una ausencia de correlación entre el logro de las metas individuales de cada uno de los estudiantes y el de las del resto de los compañeros; la competición comporta una

correlación negativa: un individuo alcanza sus metas solamente en el caso de que los demás no las consigan; la cooperación, finalmente, implica una correlación positiva: cada persona trabaja para conseguir unos objetivos que benefician a la vez a todas las demás con las que se relaciona.

Visto así, parece claro que el trabajo en equipo favorece más la integración social que los otros dos métodos. Y sin embargo, se utiliza menos. Algunos docentes explican que no les ha dado resultado y que lo han desechado por este motivo; en cambio, el análisis de las investigaciones realizadas al respecto contradice esa experiencia.

En efecto, los diversos autores que han emprendido la tarea de revisar las investigaciones realizadas en torno a la eficacia del trabajo en grupo han llegado a conclusiones parecidas a las de Johnson & Johnson,¹ Slavin² y Brown y Atkins,³ que resumo a continuación:

- las técnicas de trabajo en equipo promueven un nivel de aprendizajes académicos similar al que fomentan los métodos individualistas y los competitivos. Según Brown y Atkins, «el trabajo en equipo normalmente es mejor que otros métodos en cuanto a promover habilidades intelectuales incluyendo la resolución de problemas y el cambio de actitudes y aproximadamente tan bueno como los otros métodos en lo que a la información se refiere». Slavin añade, además, que, en los aprendizajes de bajo nivel, como el cálculo y la aplicación de principios, las técnicas cooperativas parecen ser más efectivas que las tradicionales a condición de que tanto la estructura de la técnica como las responsabilidades individuales y el sistema de recompensas estén bien definidas; en cuanto a los objetivos de alto nivel cognitivo como la identificación de conceptos, el análisis, el juicio y la evaluación, las técnicas cooperativas menos estructuradas que favorecen un nivel alto de autonomía de los estudiantes y su participación en la toma de decisiones suelen ser más efectivas que las técnicas individuales tradicionales;
- estimulan la motivación, especialmente la motivación intrínseca;
- tienden a producir actitudes más positivas hacia las experiencias instruccionales y hacia el profesorado;
- favorecen niveles más elevados de autoestima;
- estimulan el interés de los estudiantes sobre la forma de aprender de sus compañeros y la adopción de comportamientos de ayuda;
- favorecen la integración entre los estudiantes y la aceptación de la diversidad (sexos, niveles socioeconómicos, etnias).

Tenemos por tanto una serie de razones nada desdeñables para poder considerar generalmente efectivo el uso de las técnicas grupales. Aña-

damos, sin embargo, algo que a nuestro juicio es importante: no debe perderse de vista a los individuos. No podemos permitir que los estudiantes sientan que pierden la identidad —ni perderla nosotros— sumergidos en una dinámica que no comprenden ni controlan; bien al contrario, el grupo ha de estimular lo que de positivo hay en las personas, quienes, en situación grupal, podrán aprender a desempeñar diferentes roles, a descubrir al otro —a los otros y a las otras—, a comunicarse, a negociar, a decidir y a resolver problemas, todo lo cual, evidentemente, ha de causar un efecto positivo en su desarrollo afectivo e intelectual, independientemente de la edad y del status.

Para garantizar esta permanencia y potenciación de lo individual en los grupos conviene no sólo no reprimir las manifestaciones de sus miembros sino potenciarlas mediante el reconocimiento de sus cualidades y habilidades, lo cual debe hacernos pensar en la forma de conseguir el equilibrio entre intereses individuales y de grupo y en formas específicas de actuación que comporten el desarrollo de las habilidades sociales de las personas sin renunciar a sus características propias.

En el caso del trabajo en equipo de los estudiantes evidentemente éste es uno de los retos más importantes con los que nos enfrentamos los docentes.

Con esta salvedad podemos considerar que las técnicas de trabajo en equipo tienen las mismas posibilidades de favorecer aprendizajes que otras metodologías y, además, estimulan actitudes positivas relativas a la cooperación y a la convivencia.

Las experiencias negativas del profesorado habrá pues que intentar explicarlas no en relación a los objetivos de las técnicas de trabajo en equipo ni tampoco en relación a las propias técnicas, sino más bien relativamente a la manera como las han utilizado los docentes en las clases y en el papel que han desempeñado durante el proceso, lo cual nos lleva a efectuar unas últimas recomendaciones a quienes deseen adoptarlas.

La función del profesorado

El profesor o profesora que deciden utilizar cualquiera de las técnicas de trabajo en equipo deben tener bien presente que han de alcanzar el éxito como líder en tres dimensiones: la de las personas, la del grupo y la de la tarea. Respecto de las personas —de todos y cada uno de sus alumnos— deben ocuparse de su crecimiento personal a todos los niveles; en relación con el grupo, han de cuidarse de los aspectos procesuales y dinámicos; en cuanto a la tarea, tienen que asegurarse de que se alcanzan los objetivos de aprendizaje. Estamos pues muy lejos de un modelo

de profesor que se limita a observar a sus alumnos y a estar disponible cuando éstos lo solicitan.

El modelo de profesor que exige cualquiera de los métodos de trabajo en equipo reúne las características siguientes:

- es una *persona* (con afectos, emociones, motivaciones, intereses, comportamientos específicos, etc.) y se presenta como tal, es decir, como ser humano diferente de todos los demás;
- es una figura de autoridad (líder institucional de la clase);
- es experta en temas de aprendizaje y en determinados contenidos o materias;
- es agente de socialización;
- es alguien que facilita los aprendizajes;
- puede convertirse en modelo (yo ideal) para sus alumnos.

Sus habilidades —que ha de intentar traspasar a los alumnos que tiene a su cargo—, han de ser explicar, escuchar, preguntar, contestar, resumir y concluir, pero, sobre todo, debe realizar las funciones siguientes:

- planificar y organizar,
- realizar un seguimiento de los procesos grupales y un buen diagnóstico de las dificultades o problemas del grupo y de las personas que lo integran,
- intervenir para lograr que se alcancen los objetivos de las personas, del grupo y los que están ligados a la tarea,
- evaluar tanto el proceso como los resultados.

De las actividades enunciadas las más difíciles de realizar para un docente que no tenga preparación en Dinámica de Grupo serán la realización del seguimiento de los procesos grupales y el diagnóstico de los problemas de grupo, lo que nos hace ver la necesidad de proporcionar a los docentes, tanto en su etapa de formación inicial como posteriormente, una formación, no sólo teórica, sino práctica, en Dinámica de Grupo.

En cuanto a las actuaciones que realiza cuando organiza la clase para que trabaje en equipo, a las que me he referido anteriormente, me interesa destacar ahora la etapa final, el momento en que, acabado ya el trabajo de los distintos subgrupos, el docente organiza una reunión-discusión entre todos sus alumnos respecto de la manera como vivieron ese trabajo, de la forma como se relacionaron entre ellos, cómo tomaron las decisiones, qué roles adoptaron, qué normas rigieron su comportamiento, qué clima hubo en su equipo..., del nivel de autonomía que sintieron que tenían en relación con el profesor o profesora, de las dificultades y satis-

facciones que experimentaron en relación con la tarea, del sentimiento de logro que los invadió cuando la dieron por terminada.

Esta etapa final del trabajo en equipo tiene especial relevancia y es fundamental que el grupo sea consciente de su importancia, por lo que conviene enfatizarla. En ella se consigue que, a pesar de haber trabajado en subgrupos, la clase siga cohesionada, siga compartiendo el sentimiento de formar parte de un mismo colectivo; se consigue también que los estudiantes se vayan haciendo conscientes del interés de los procesos grupales y de la relación que tienen dichos procesos con la experiencia y los resultados de la tarea; puede conseguirse, finalmente, que vean la materia de estudio con ojos nuevos, y que se sientan motivados hacia la misma.

En general, y gracias al trabajo desempeñado en el subgrupo y al comentario posterior realizado bajo la dirección del profesor o profesora, los estudiantes pueden adquirir:

- una buena comprensión de la materia globalmente considerada;
- un dominio suficiente de los conceptos, hechos básicos, técnicas y perspectivas relativas a los temas estudiados;
- una comprensión nueva sobre sus propias habilidades, reacciones y procesos de pensamiento aplicados a situaciones de aprendizaje;
- mayor conciencia de las habilidades, reacciones y procesos de pensamiento de sus compañeros y compañeras;
- una cierta habilidad para analizar los procesos de comunicación y para expresar ideas y sentimientos;
- la posibilidad de aplicar lo aprendido a nuevas situaciones y resolver problemas similares;
- alguna habilidad de invención o de ejercicio del talento creativo;
- cierta capacidad para valorar la calidad de determinados materiales o procedimientos

Si las adquieren, el profesorado podrá felicitarse. No hay prueba mejor de su competencia profesional que el éxito y el desarrollo de las capacidades del alumnado.

1. Johnson R. T. & Johnson, D. W. (1985) «Student-student interaction: ignored but powerful», en *Journal of Teacher Education*. American Association of Colleges for Teachers Education. Vol. 36, n.º 4, pp. 22-26.

2. Slavin, R. E. (1980) «Cooperative Learning», *Review of Educational Research*. Vol. 50, n.º 2, pp. 315-342.

3. Brown, G. & Atkins, M. (1990) *Effective Teaching in Higher Education*. Routledge. London.

Annex 2 (extracted and translated from a trainers' training book)

Certainly! Here's a paraphrased version of the text while maintaining the original paragraph structure:

The role of a trainer is to facilitate the learning process by creating a supportive and engaging environment. This involves understanding the needs of the learners and adapting the training to meet those needs. Trainers should also be able to effectively communicate information and provide opportunities for active participation. Additionally, it is important for trainers to continuously evaluate the effectiveness of their training methods and make adjustments as necessary to ensure the best possible learning outcomes.

The current development of group dynamics is outstanding. Regardless of the trainer's theoretical framework, whether they are a psychologist or educator, and irrespective of the training context, be it in public or private companies, labor unions, formal education, etc., the theoretical principles and development strategies enabled by group dynamics will not only clarify the design of training plans, but undoubtedly improve the "image" and results of the training action.

Group dynamics originated in the United States around 1930 when the first research on groups in the workplace, politics, and social fields emerged. These initial studies, along with the theoretical principles of Gestalt, contributed to the development of group dynamics theory.

One of the main reference authors is the American psychologist Kurt Lewin, who outlined important concepts such as "life space" and "field theory," and researched problems and phenomena related to group theory. From an applied perspective, he related these concepts to research in education and organizations. Kurt Lewin's theory (1967) can be summarized in the following points:

- The "psychological life space" includes all events that determine behavior.
- He views the group as a "dynamic whole" formed by individual members, not just the sum of them.
- The group's evolution and movements are based on psychosocial interaction.
- Group cohesion generates forces of attraction and rejection.
- The place of interactions constitutes a "social force field."
- The field is the totality of interdependent and coexisting facts.

Group dynamics can be applied in various areas: in the family environment, the workplace, the socio-political sphere, and of course, in education. In any of these contexts, the application aims to achieve one or more of the following objectives:

- Understanding the forces at play in the group and its composition.
- Identifying aspects that hinder or promote group cohesion.
- Maintaining a neutral position while having a general view of the group.

- Encouraging the participation of all members.
- Making each group member self-responsible for their learning process.
- Fostering the development of each group member.
- Facilitating self-assessment of individual abilities for each group member.
- Evaluating the group's joint action and providing feedback.

In conclusion, we can say that "group dynamics" is a training tool, a working instrument that can be used in various ways and for different activities. For instance, it can be used to stimulate students' acquisition of knowledge and skills, as well as a change in attitudes and behaviors, thanks to working primarily with students' experiences and feelings in group dynamics.

The quality of training is closely linked to the training and qualification of the teaching staff, hence the importance of programming and implementing Train the Trainer programs that address aspects related to the planning, delivery, and evaluation of training activities, thereby equipping teachers with techniques, procedures, and tools to offer quality training.

One of the contexts where Trainer Training has a significant application today is in the business sector. With new technological advances and changes in the socio-economic environment, companies must be competitive and have qualified personnel. To achieve these goals, companies develop their own training processes, and this is where Trainer Training plays an important role: it contributes to the company's development through the retraining of its employees.

Group exercises or dynamics can serve various applications or functions:

1. They can serve as a motivating function, arousing students' interest and expectations towards a specific topic.
2. They can be used to introduce a new topic, presenting concepts and processes previously unknown to the students.
3. They can be used as a conclusion and final recapitulation of a thematic unit, reinforcing its concepts and integrating them into a whole, providing an overall view of the training content.
4. They can be applied to overcome stagnation and conflicts arising in the class group dynamics.
5. They can also be used to facilitate the transfer of learned knowledge, processes, and skills to real-life situations.
6. They can help the teacher assess the students' understanding, allowing them to identify cognitive and affective needs and the degree of achievement of learning objectives.
7. They can be applied to promote a change in students' attitudes.

However, it is important to consider that not every exercise is suitable for all these functions. The selection and application of each exercise depend on numerous variables:

- The teacher's skills.

- The group's skills and resources.
- The teacher's leadership style.
- The group's objectives.
- The objective proposed by the teacher for that exercise.
- The group's attitude.
- And so on.

Annex3 (extracted form: Codes Of Practice - Teaching and Assessment.htm – Wollongong University <https://documents.uow.edu.au/content/groups/public/@web/@gov/documents/doc/uow058666.pdf>)

RATIONALE FOR GROUP WORK

- The Attributes of a Wollongong Graduate Point 9 states that our graduates will have 'capacity for teamwork'. Many members of staff believe that group work develops capacity for teamwork and prepares graduates to be effective in employment where they will be expected to work as part of a team.

GUIDELINES FOR SETTING GROUP WORK

- Procedures for group work should be detailed (as with all assessment procedures) in the subject outline. It is possible that students may be consulted before rules are finalised. Any changes in assessment procedures following consultation with students will require written amendment, normally by the end of week two.
- More than one model for teamwork is available and different groups in the one subject may opt for different models. For example some groups might prefer to meet within a formal structure with agendas, resolutions and minutes, others may prefer an informal discussion group. Imposing one or other model may impede learning and prevent effective co-operation.
- Staff should recognise that group work may pose special difficulties for students from non-English speaking backgrounds or students with a disability, and adjust their requirements and support accordingly.
- It is desirable that staff in consultation with students establish ground rules for group work about:
 - the conduct of group meetings-frequency and timing, o the responsibility of members to each other
 - group contact outside of scheduled class times. Students enrolled at the University of Wollongong travel to the university daily from such diverse addresses as Double Bay, Coogee, Lucas Heights, Campbelltown, Liverpool, Bowral and Nowra. Many of these students work either part time or full time, many are parents, often single parents and have other commitments which make it very difficult to attend the University outside of scheduled class hours
 - assessing the real contribution of each member to the group project, (e.g. by using individual process diaries).
- Assessment of group work should not rest upon the student's capacity to sacrifice family commitments or to juggle the imperatives of work. In subjects that use group methods of assessment it is therefore desirable that some scheduled class times be dedicated to group meetings. In any case in-class supervision and discussion of group assignments should be built into the schedule of lectures or

tutorials and take place according to the percentage of assessment allocated to group work.

- It is recommended that where students in any subject are awarded a common mark for group work, that common mark normally should not exceed 50% of the marks awarded in the subject.

DISBANDMENT OF A GROUP

- Co-ordinators should provide, in advance, plans for alternative individual assessment for students whose groups disband.

PRACTICAL CONSTRAINTS ON GROUP WORK

- Group work, under proper conditions, encourages peer learning and peer support and many studies validate the efficacy of peer learning. Under less than ideal conditions, group work can become the vehicle for acrimony, conflict and freeloading. It may also impose a host of unexpected stresses on, for example, students with overcrowded schedules living long distances from the University. Therefore it is the responsibility of staff to establish explicit guidelines for group work to ensure that learning objectives are met and to ensure that they are compatible with University policies and codes. o to manage the planning, development and implementation of processes and procedures for learning through group work.

Annex4

Richard James, Craig McInnis and Marcia Devlin
Centre for the Study of Higher Education
September 2002 - [Assessment and Feedback \(unimelb.edu.au\)](http://unimelb.edu.au)

THREE GOOD REASONS FOR GROUP LEARNING

1. Peer learning can improve the overall quality of student learning

There are sound educational reasons for requiring students to participate in group activities. Group work enhances student understanding. Students learn from each other and benefit from activities that require them to articulate and test their knowledge among their peers.

Working with a group and for the benefit of the group also motivates some students. Group assessment helps some students develop a sense of responsibility: 'I felt that because one is working in a group, it is not possible to slack off or to put things off. I have to keep working otherwise I would be letting other people down.'

2. Group work can help develop specific generic skills sought by employers

Group work can facilitate the development of generic skills which include:

- teamwork skills (skills in understanding team dynamics; leadership skills);
- analytical and cognitive skills (analysing task requirements; questioning; critically interpreting material; evaluating the work of others);
- collaborative skills (conflict management and resolution; accepting intellectual criticism; flexibility; negotiation and compromise); and
- organisational and time management skills.

3. Group work may reduce the workload involved in assessing, grading and providing feedback.

Group work, and group assessment in particular, is sometimes implemented in the hope of streamlining assessment and grading tasks. In simple terms, if students submit group assignments then the number of pieces of work to be assessed can be vastly reduced. This prospect might be particularly attractive for staff teaching large first year classes.

But the assessment of a group 'product' is rarely the only assessment taking place in group activities. The process of group work is increasingly recognised as an important element in the assessment of group work. And where group work is marked solely on the basis of product, and not process, there can be inequities in individual grading that are unfair and unacceptable.

Once a workable model of group work is in place and the necessary planning has occurred, group assessment may reduce some of the task of assessment and grading — provided that assessing individual contributions to the product or process is limited. Without careful preparation and these limitations, however, group assessment can add to staff workloads.

COMMON ISSUES AND CONCERNS WITH GROUP WORK

Lack of perceived relevance, lack of clear objectives

While some students consider the group assessment they participate in as effective preparation for employment ('it's just how teams work in the media industry'), others are yet to be convinced. There is an alternative view that employers focus on employing an individual, not a team, and that the way group work is carried out and assessed in universities is rarely the way it is carried out or evaluated in 'the real world'.

Students are sometimes not clear about the benefits of group work and group assessment and are sometimes ill-equipped or under-skilled for such work. Many students enter higher education having developed independent study habits and are strongly oriented towards their own personal achievement. These students may perceive little value for their own learning in group activities, or may be frustrated by the need to negotiate. Students can also perceive group work as a tool used by academic staff primarily to reduce their workload and of little benefit to students.

Inequity of contribution

One of the strongest concerns that students have about group work is the possibility that group assessment practices may not fairly assess individual contributions. Students are keen that grading practices are established so that grades reflect the levels of performance of each student. Such arrangements can address the issue of the would-be 'shirkers' and encourage all to contribute equitably. They can also reward individual group members who carry a proportionally heavier load or who make a more significant contribution than their group colleagues.

Overuse

Careful co-ordination of the scheduling of assessment can help avoid the student workload issue that is likely to arise from a number of group assessment tasks across different subjects. Monitoring and regulation of the extent and timing of group work is therefore desirable. But with the challenges posed by more flexible study options and a wider range of student choices, the co-ordinated scheduling of assessment is often difficult. Some consideration of the needs of particular students may be possible. For example, if students are allowed to put a case explaining the extent of concurrent group assessment they are experiencing, it might be possible for staff to provide alternative assessment in one or more of the subjects in which a student is enrolled.

"It's different, therefore interesting and enjoyable, but I wouldn't want every piece of assessment to be like this"

DESIGNING EFFECTIVE GROUP ACTIVITIES

Is there a best model for group work?

Probably not, for the 'best' model depends much on the context. One view is that imposing one or other model may impede learning and prevent effective co-operation. On the other hand, some students may prefer to be guided by a clear model. There are many approaches that are possible. Some groups, for example, might prefer to meet within a formal structure with agendas, resolutions and minutes; others may prefer a series of informal discussions.

Well organised and supported group work may build confidence in first year students. An initial contract, where students commit themselves to the services and tasks they will complete for the group, may be effective in some situations although many staff find such approaches cumbersome. Such contracts do, however, make it easier to measure performance later and to identify 'shirkers'.

In any case, explicit and transparent procedures should be made available and explained to students undertaking group work. In addition, as many universities recognise, academic staff supervising group work should make advance plans for students whose groups disband.

The 'best' selection of group members, the 'optimal' roles and responsibilities that should be adopted and the 'ideal' conduct of group meetings will all depend on the purpose and function of the group.

Weighing up the options for group assessment

Decisions about the structure of the assessment of group work need to be focussed around four factors:

1. whether what is to be assessed is the product of the group work, the process of the group work, or both (and if the latter, what proportion of each)
2. what criteria will be used to assess the aspect(s) of group work of interest (and who will determine this criteria – lecturer, students or both)
3. who will apply the assessment criteria and determine marks (lecturer, students – peer and/or self assessment or a combination)
4. how will marks be distributed (shared group mark, group average, individually, combination)

1. Product, process or both?

Many staff believe there is a need to assess the processes within groups as well as the products or outcomes. But what 'process' is interpreted to be must be explicit and transparent for students. For example, if a staff member wishes to assess 'the level of interaction', how might a student ensure they reach 'an outstanding' level? What is 'an outstanding' level?

This example raises the question of how staff can confidently know the level of interaction that has taken place. Staff would either have to involve themselves intimately in the workings of each group or rely on student self- or peer-assessment.

Visit www.cshe.unimelb.edu.au/assessinglearning
for assistance with making decisions about the design of group work.

Less often, assessment is focused solely on the product of group work: 'I don't care what they do in their groups – they're adults. All I'm interested in is the final product – how they arrive at it is their business'.

Most commonly, there is an interest in both the process and product of group work and the decision becomes 'What proportion of assessment will focus on each?'

2. What criteria and who determines these?

Criteria for the assessment of group work can be determined by staff, students or through consultation between the two. Groups are most successful when students are involved in establishing their own criteria for assessment through consultation with teaching staff.

A clear understanding of the intended learning outcomes of the subject in which the group work occurs is a useful starting point for determining criteria for assessment of the group work itself. Once these broader learning requirements are understood, a consideration of how the group tasks, and criteria for assessment of those tasks, fit into those broad requirements can then follow.

It is easier to establish criteria separately for the process and product of group work than to attempt to do both at once. The generation of criteria for the assessment of products of group work is relatively straightforward given the similarity between these and individual assessment submissions (products) in other contexts. Criteria for process, as appropriate to the subject and group work objectives, may include, for example:

- regular meeting attendance
- equity of contribution
- evidence of co-operative behaviour
- appropriate time and task management

- application of creative problem solving
- use of a range of working methods
- appropriate level of engagement with task
- development of professional competencies
- evidence of capacity to listen
- responsiveness to feedback or criticism.

3. Who is the assessor – lecturer, student or both?

and

4. Who gets the marks – individuals or the group?

Assessment and grading practices have a central role in optimising the quality of group interaction and more generally in directing student learning in group work. During a wide ranging interview about group assessment, students were asked if they could change one thing about this experience, what it would be. One 3rd year student said 'I would get the lecturers to clearly outline their expectations so that we know what amount of work and effort will get what mark'. Another said, 'I would make the marking of group work consistent.'