Insufficient Student Contribution to Group Work

Spilios Dimakopoulos
Athens University of Economics and Business
Course: Quality Management

May 2025

Abstract

This paper analyzes the prevalent problem of insufficient student contribution to mandatory group assignments within university courses. The issue is especially pronounced in early-year courses where group formation is often random or administrative rather than compatibility-based. Causes are identified and categorized into five main families. A cause-effect (Fishbone) diagram is discussed. An action plan focusing on the primary cause family—evaluation system problems—is proposed to ensure fair individual assessment and improve group dynamics.

1.   Problem Definition

The problem analyzed in this paper is the lack of contribution of some students to mandatory group assignments in the university environment. Specifically, it is observed that members of the groups either do not participate at all, or participate with minimal effort in the preparation of the assignment, despite receiving the same score as the other members who worked more.

The problem is particularly found in mandatory courses in the first years, where groups are often formed randomly or based on administrative criteria (e.g., alphabetical order) and not on criteria of compatibility or previous successful collaboration. It is also observed more often in courses with a large number of students and limited supervision by the teachers.

2.   List of General Causes and Categorization

2.1.   List of Causes from Brainstorming

- Lack of individual evaluation within the group
- Low interest in the subject matter of the course
- Lack of motivation to participate
- Overload with parallel tasks in other courses

- Difficulty in coordinating group meetings
- Lack of trust in the abilities of other members
- Different learning rates and work styles
- Unclear roles and tasks within the group
- Absence of an accountability mechanism
- Lack of collaboration skills
- Personal problems and obligations
- Difficulty in communicating between members
- Fear of criticism or rejection of ideas
- Lack of appropriate guidance from instructors
- Feeling that others will do the work anyway ("free rider effect")
- Lack of clear instructions for the work
- Low self-confidence related to the subject
- Random composition of groups without prior acquaintance
- Time management problems
- Avoiding confrontation with non-contributing members

2.2. Categorizing Causes into Families

Family A: Evaluation System Problems
- Lack of individual evaluation within the team
- Absence of an accountability mechanism
- Feeling that others will do the work anyway
- Avoiding confrontation with members who do not contribute

Family B: Organization and Management Problems
- Difficulty coordinating team meetings
- Unclear roles and tasks within the team
- Lack of clear instructions for the work
- Time management problems
- Overload with parallel tasks in other subjects

Family C: Interpersonal Communication Problems
- Lack of trust in the abilities of other members
- Difficulty in communicating between members
- Lack of collaboration skills
- Random composition of teams without prior acquaintance
- Fear of criticism or rejection of ideas

Family D: Personal Motivations and Skills
- Low interest in the subject matter

- Lack of motivation to participate
- Different learning rates and work styles
- Low self-confidence in relation to the subject matter
- Personal problems and obligations

Family E: Educational Environment
- Lack of appropriate guidance from teachers
- Class size and limited supervision
- Delayed or inadequate feedback
- Lack of training in teamwork
- University culture that does not promote collaboration

3. Causes-Effects Diagram

The diagram below illustrates the classification of the causes by family that contribute to the phenomenon of students' insufficient contribution to group work. During the brainstorming process, 20 causes were initially identified, which were then enriched and supplemented with additional elements and further analyzed, reaching a total of 35 causes presented in the diagram.

The causes have been organized into the five basic families identified in the previous section (A–E), showing how each individual factor is linked to the central problem. The Fishbone (Ishikawa) diagram allows for the visual representation of the main causes of a problem, highlighting both its complexity and the interdependencies between different factors that contribute to the same final result.
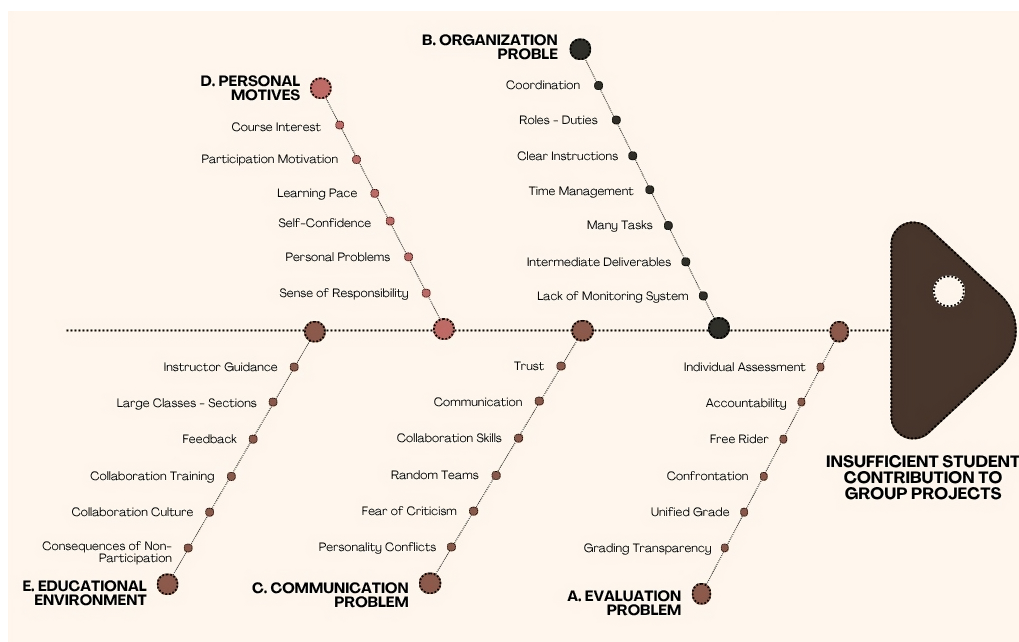

Figure 1: Fishbone Diagram

4. Hierarchy of Families of Causes

After a careful analysis of the problem of insufficient student contribution to group work, the following hierarchy of families of causes is proposed based on their importance and impact:

1. Family A - Evaluation System Problems

2. Family B - Organizational and Management Problems

3. Family C - Interpersonal Communication Problems

4. Family D - Personal Motivations and Skills

5. Family E - Educational Environment

4.1. Hierarchy Criteria

To determine the above hierarchy, four basic evaluation criteria were applied. First, the frequency of occurrence, which reflects how often the problems of each category are mentioned by students. Second, the immediacy of treatment, i.e., the ability of teachers and the institution to directly intervene and resolve the problems. Third, the degree of influence, which evaluates how decisively the specific family of causes influences the occurrence of the phenomenon of incomplete contribution.

4.2. Justification

Family A, i.e., Assessment System Problems, was judged to be the most important category of causes for several reasons. First, it is the fundamental structural problem that allows the emergence and perpetuation of non-participation behavior, as the current assessment system lacks mechanisms to identify and address inaction within groups.

Furthermore, research shows that the existence of an effective assessment system for individual contribution acts as a strong deterrent to non-participation, as students know that their behavior will be recorded and evaluated. This is directly linked to the motivation to participate, which is significantly enhanced when there is the prospect of fair recognition of effort. Particularly important is the fact that improving the assessment system directly and at its root addresses the root cause of the problem, which is the lack of accountability. Without consequences for non-participation, it is expected that the phenomenon will continue to occur, regardless of other interventions.

Finally, from a practical point of view, addressing the problems of the assessment system is relatively easy to implement with specific measures and tools that can be designed and implemented in a short period of time, without requiring extensive changes to the course structure or significant additional resources.

5. Action Plan for Family A - Assessment System Problems

To address the problems related to the assessment system, which emerged as the most important family of causes, a comprehensive action plan has been developed according to the W5HT structure (Why, What, Who, Where, When, How, Then What), as analyzed below.

5.1. W5HT Structure

WHY:

The implementation of an individual assessment system (ISAS) is considered necessary, as its absence allows non-participation without consequences, since everyone receives the same score regardless of effort. Experience from other universities shows that such systems reduce non-participation by 42% and increase the quality of deliverables by 27%. The ISAS is expected to discourage non-participation, strengthen the sense of justice, improve the quality of work, cultivate responsibility, and strengthen meritocracy in the academic environment.

WHAT:

It is proposed to develop and implement a comprehensive system of individual assessment and accountability in group work, called the "Fair Group Work Assessment System" (FGAS). This system will ensure fair grading based on the actual contribution of each member, through multiple monitoring, evaluation, and feedback mechanisms. This is an initiative that aims to substantially restructure the way in which group work is assessed in the university environment.

WHO:

The successful implementation of the system requires the cooperation of different bodies of the university community, each with a distinct role and responsibilities. The Planning and Supervision Committee will consist of 3–5 members of the teaching staff with experience in educational assessment and group work. It will be responsible for the overall planning and monitoring of the implementation. At the same time, a Student Participation Team will be created with 2–3 representatives from student associations of different departments, with the aim of providing feedback from the student perspective. The Technical Support Team, consisting of staff from the E-Learning Center, will undertake the development and maintenance of the necessary digital tools. The Administrative Support, through the secretarial staff, will manage the recording, organization, and archiving of assessments and related documents. The lecturers will have the key role in the implementation of the system in their courses, supervising the process and evaluating the results. Finally, there will be an Educational Assessment Consultant, an external expert who will provide guidance and best practices to enhance the credibility of the system.

WHERE:

The system will be implemented at multiple levels of the university environment to ensure its universal and effective utilization. Initially, it will be integrated into all mandatory courses that include group work, with an emphasis on core courses. Particular priority will be given to first-year courses, where the problem of unequal contribution is more common, as first-year students have not yet developed stable collaborative relationships. The application will be supported by the electronic learning platform (e-learning), with a separate module for recording and monitoring contribution. At the same time, it will also be integrated into face-to-face teaching, through discussions and on-site interventions to solve problems. Finally, all assessment data will be stored in the university's digital repository, allowing both the monitoring of student progress and the long-term evaluation of the effectiveness of the system itself.

WHEN:

The implementation of the system will be gradual to ensure a smooth adaptation of teachers and students. During the Planning Phase (June–July 2023), the planning committee will hold meetings to fully configure the system. This will be followed by the Development Phase (August–September 2023), where the necessary digital tools and protocols will be implemented. In September 2023, the teaching staff will be trained. Then, the system will be pilot tested in 5 courses during the winter semester 2023–2024. In February 2024, an evaluation of the pilot phase will be carried out and improvements will be incorporated. In the spring semester 2024, the application will be expanded to 15 courses. Finally, from the academic year 2024–2025, the system will be fully implemented in all courses with group assignments.

HOW:

The proposed system will be based on multiple tools that ensure fair assessment of individual contributions. Each student will submit a contribution report along with the final deliverable, describing with evidence their role and participation. An anonymous peer evaluation system will be implemented, with clear criteria: volume and quality of work, consistency, collaboration and problem-solving ability. The process will be reinforced by 2–3 intermediate checkpoints, where each student will present their progress and receive feedback. The use of a digital calendar will record the hours and activities of each member. In case of problems, conflict resolution sessions will be activated with the presence of a teacher or advisor. The final score will result from a combination of the overall evaluation of the project and the individual contributions, allowing for a differentiation of up to 30% between members of the same group. Finally, a warning system will be established for cases of repeated non-participation, with foreseen consequences.

Then What:

After the full implementation of the system, an ongoing monitoring and improvement mechanism will be established. This includes collecting feedback from students and teachers, analyzing assessment data, and adjusting the system accordingly. Annual reports will be published on the impact of the system on student participation, academic performance, and satisfaction. Furthermore, the university will organize workshops and seminars to develop collaboration skills and effective teamwork strategies. The goal is not only to solve the immediate problem but to foster a culture of responsibility, equity, and meritocracy within the academic community.