Instruct

PIDP 3340

Collaborative Learning in the College Classroom

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Presentation Observations

vcc Build Hello

Assignment Configurations - A Small Step in the Classroom Toward High-Performance Teams

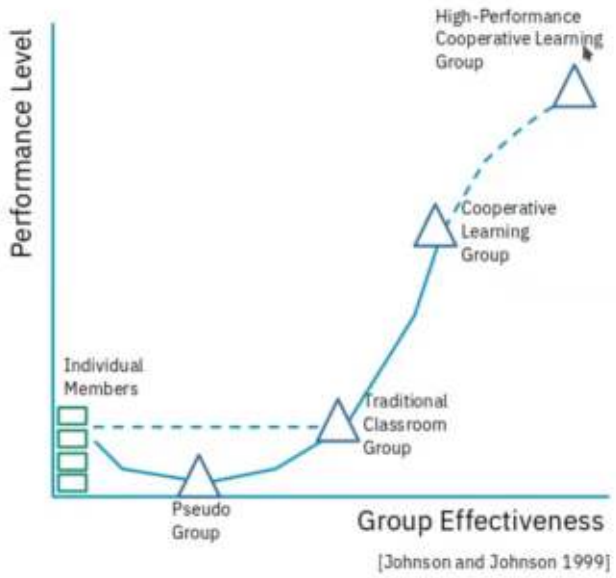
Introduction

The purpose of the assignment is to reflect on the observation of a recorded presentation by another student in the PIDP 3340 course. I chose to reflect on 'Three Types of Learning Teams', which was presented by Gordon Broom on Friday May 30th, 2025.

Gordon's presentation was my first introduction to the group tiers described in "Making Cooperative Learning Work" (Johnson & Johnson 1999), which are:

- Individual Members
- Psuedo Groups
- Cooperative Learning Groups

Here's an image from his presentation that illustrates the group categories described above and their effectiveness.



[Source: (Broom, 2025)]

A Summary

I found much of the summarized vtt file useful (and enjoyed the video). Here are some of the key points.

Why Discuss Cooperative Learning Teams

- Cooperative learning groups are more performant than individual members or traditional classroom groups
- Importance of teamwork in industry and improving psychological health
- Collaborative learning is not a zero-sum game and is a big part of indigenization and relationality
- Emphasizes learning in relation to other students and ties everything together

Types of Groups

- Informal groups: ad hoc, task-based, and disbanded quickly
- Formal groups: assigned by instructor, may have some thought put into assignment, and last for a lesson to a term
- Cooperative base groups: formal, assigned by instructor, designed to last for years, and focus on interdependence and long-term relationships

Characteristics of Cooperative Learning Groups

- Heterogeneous experience brings more than the sum of individual parts
- Improves understanding through debate and discussion
- Makes learners process and synthesize information instead of rote memorization
- Fosters motivation, and emotional and social growth

Care and Feeding of Cooperative Learning Groups

- Avoid student-selected groups as they tend to be homogeneous
- Use random or instructor-assigned grouping methods to promote diversity
- Keep group size small (max 6, ideally 4 or less) to encourage interaction and prevent hiding
- Teach cooperative skills: forming, functioning, formulating, and fermenting

Cooperative Skills

- Forming: organizing the group and establishing norms
- Functioning: managing the group's efforts and maintaining effective working relationships
- Formulating: providing mental processes for deeper understanding and stimulating higher quality reasoning strategies
- Fermenting: stimulating reconceptualization, cognitive conflict, and communication of rationales

The Problem of Encouraging Effective Group Formation

One problem stood out in Gordon's presentation. For an instructor, relying on students to form connections with each other early in the course timeline is unreliable, as evidenced by the instructor's anecdote about two students exchanging contact information on the last day of classes before the final.

> *"This is the last class before the final! They should have done this in week 1!" ~ Gordon Broom*

Not only are students unlikely to be aware of the social 21st century skills they need to form effective groups, but they are also unlikely to form such groups themselves, as evidenced again by the instructor's observations that 'student-formed' groups tend to be homogeneous, when diversity in group composition is more beneficial in terms of high-performance outcomes, at least after the group is familiar enough or incentivized enough to bond effectively.

In short, it is difficult to get students to interact with one another in ways that are conducive to forming gold standard, high-performance, cooperative groups.

One reason could be that forcing group behaviour, in which asking or demanding that 'storming' [read rivalling] group participants support one another and cooperate is only by convention acceptable on sport teams and paid work teams (example: law enforcement partnerships, paramedics). For an instructor to enforce or demand supportive cooperation from classroom participants could be viewed as unorthodox and possibly even risky, in terms of job security.

So the question seems to be how to solve the problem of incentivizing students to connect with one another and collaborate and cooperate in ways that can increase the probability of formation of high-performance gold-standard groups among graduates, class participants, etc...

Solutions: Assignment Configurations

There are likely many answers to such a question. One should expect, for example, at the ivy league level, academic culture – right through from fraternities and clubs to 'secret societies' – encourages behaviours that lead to high-performance gold-standard groups. Such institutional cultural level solutions, however, which in many cases are the result of interwoven influences over centuries of historical happenstance, might be too expansive or culturally distinct for the college instructor level. Incentive alignment is possibly something that is more practical, in terms of implementation.

What I propose, I'm going to call 'Assignment Configurations.' Assignment Configurations could consist of 'Assignment Bundles (bundling)' and 'Assignment Trading.'

'Assignment Bundling' involves grouping sets of assignments and assigning them to groups with specific criteria that promote participation and collaboration. 'Assignment Trading' consists of scheduled trade dates, throughout the bundled period (or the time period, if bundling is not used), on which assignment components can be traded between group members. Through assignment design, assignment components can be given characteristics, which make trading them possibly advantageous. Such characteristics could consist of things like due dates, and in the computer sciences, computer language criteria, or technology specifications. Students could trade assignment components to optimize schedules or specialties, and in the process be more likely to familiarize with one another, creating conditions for formation of more highly effective groups.

For example, students could be assigned a bundle of 9 assignments, each with 3 components, where at the start of the time period, 3 assignments, totalling 9 components, are allocated to each of the 3 group members. The criteria could state that after completing the first part of any assignment, the student must exchange the second part of his or her assignment with another student in his group; and after completing the second part, do the same with the third; such that,

by the time the assignment bundled is completed, each student has completed only 1 part of each assignment, and had to trade, at different time intervals, 6 assignment parts.

To make the bundle even more interesting – and effective – the final grouping of assignment parts, controlled by each student, could be relevant in some mildly challenging way that is perhaps related to course material. For example, each component could be assigned a letter or word, that is only revealed to the student on completion of the assignment component. Given this particular bundle contains 27 components, on completion of the bundle, 27 words, or 27 characters, could be revealed to the students. The students could then trade components so that each student controls (and hands in to the instructor) some arrangement of the words. The instructor, then, could evaluate the collective work against a 'secret key,' awarding full marks (or bonus marks) only if the students correctly arranged the assignment components.

The intuition is that a thoughtfully designed mildly puzzling 'assignment bundle' might incentivize students to work together cooperatively in a way that both optimizes the achievement of learning outcomes and promotes interactively, intermittently, and, across a variety of different student groupings (more bundles of different groups), higher performance group behaviour. Furthermore, the positive effects of such a strategy could be enhanced and leveraged if the students were made aware of the external goals of the strategy with appropriate course/project material.

Finally, for larger groups, group roles could be assigned, and the roles could also be made tradeable (or not). Certainly clever instructors, or curriculum writers, could devise intelligent roles that fit project/bundle characteristics; but, we can imagine easily a role such as 'scheduler', who's responsibility is to manage a spreadsheet with assignment due dates and responsibilities, keeping track of which group members are responsible for which components. Another role could be 'verifier', who's job it is to verify results from AI, or code, in the case of computer science bundles, or any other rubric-like criteria, by which the assignment bundle will be graded. A verifier ensures some member of the group applies a peer-review type process to the group's work. I should think you, the reader, can imagine other roles, that are perhaps relevant in the context of your specialty, or simply beyond the scope of the author's imagination.

An Implementation

Assignment configurations, like bundling and trading, might sound confusing, or anyway unorthodox – and that is fine, since I've just made it up in my head – but, I'm sure there are many instructors who could create similar assignments or implement similar strategies that achieve more or less the same effect, which is to incentivize students to group together and then work together cooperatively to solve a puzzle, while completing course related assignments, in a fun and challenging way, that achieves the objective of 'nudging' students to lean toward high-performance group behaviour. 'Assignment Configurations', may sound like a curriculum writers dream, but they could be one way to achieve that objective. I for one, if I teach, will certainly consider using them.

Conclusion

In conclusion, Gordon Broom's presentation, titled "Three Types of Learning Teams", emphasizes the significance of cooperative learning for high-performance outcomes. Through a summary of the presentation and an analysis of the challenges of encouraging effective group formation, this paper identifies the need for innovative strategies to promote collaborative learning.

The proposed "assignment configurations" approach offers a potential solution, leveraging the power of cooperative learning to achieve both course-related learning outcomes and the development of high-performance group behavior.

By implementing such strategies, instructors can create a learning environment that fosters the skills and behaviors necessary for success in today's collaborative workplaces. Ultimately, this reflection underscores the value of continued exploration and innovation in teaching practices to support the development of high-performance groups among students.

References

Johnson, D. W., and R. T. Johnson. 1999. Learning Together and Alone: Cooperative, Competitive, and Individualistic Learning. 5th Edition. Allyn & Bacon. https://openlibrary.org/books/OL5062916M/Learning_together_and_alone.

Johnson, D., & Johnson, R. (1999). Making cooperative learning work. Theory Into Practice, 38(2), 67-73. doi: 10.1080/00405849909543834 [Retrieved from: https://www.researchgate.net/publication/243775553_Making_cooperative_learning_work/]

Broom, Gordon J. 2025. "Three Types of Cooperative Learning Teams." https://camosun-ca.zoom.us/rec/share/rHFXbN44sAnfIAdXmRJ2ZCVR4ud8p62wdNSE1uyKyybYwi-ocl-HPHt1umvvET5i.1mVcjXaSlwc0-ZQW?pwd=EVNfaBO3KRzAEVDMZwynm8JhYZGPOBO6.

AI Models Used in Report

The ideas, structure, writing, and editing in this paper were performed by the author. Various AI models were used in collecting data, verifying data, and formatting various arguments. The author has not read of or heard of 'assignment configurations', 'assignment bundles', or 'assignment trading', though such practices probably pop-up in the wild, so to speak, from time to time. The AI models used in this report, are free models, that are trained on the corpus of data fed to them. Which is to say, you can now consider any of the original ideas in this paper as part of the 'public body of knowledge', or 'the proprietary knowledge', if the owners of the models used decided, for some reason, to partition the data in the models they own and control.

- GPT 4.1 Mini (2025-04-14)
- Llama 3.1 8B

- Meta Llama 4 Maverick
- Meta Llama 4 Scout
- Mixtral
- Qwen 2.5 235b a22b
- Qwen 14B