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Résumé de l'article

La réussite du travail en groupe n'est pas le fruit du hasard et ne dépend pas uniquement, ni même principalement, des compétences interpersonnelles des membres du groupe. D'après la théorie de l'apprentissage coopératif (AC), le travail en petits groupes est efficace lorsque les facilitateurs structurent et organisent le petit groupe de manière à inclure chacun des cinq éléments de l'apprentissage coopératif. Dans cet article, nous avons décrit chacun de ces cinq éléments comme un moyen de maîtriser l'apprentissage en petit groupe : l'interdépendance positive, l'interaction simultanée, la responsabilisation du groupe et de l'individu, les compétences interpersonnelles et les habiletés liées au fonctionnement en petit groupe, et l'évaluation du groupe. Pour aider nos lecteurs à se souvenir des cinq éléments clés de l'AC, les cinq façons de maîtriser l'animation de petits groupes, nous proposons une infographie.

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Five ways for facilitators to get a grip on small group learning Cinq manières pour les facilitateurs de maîtriser l'apprentissage en petit groupe

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Abstract

Successful groups do not happen by chance, and they do not depend solely or even mainly on the interpersonal skills of the group members. Cooperative learning (CL) theory tells us that small groups are successful when facilitators structure and organize the small group to include each one of the five elements of cooperative learning. In this article, we have described each of these five elements as a way to get a grip on small group learning: positive interdependence, promotive interaction, group and individual accountability, interpersonal and small group skills, and group processing. To help our readers remember the five key elements of CL, the five ways to get a grip on small group facilitation, we have created an infographic.

Résumé

La réussite du travail en groupe n'est pas le fruit du hasard et ne dépend pas uniquement, ni même principalement, des compétences interpersonnelles des membres du groupe. D'après la théorie de l'apprentissage coopératif (l'AC), le travail en petits groupes est efficace lorsque les facilitateurs structurent et organisent le petit groupe de manière à inclure chacun des cinq éléments de l'apprentissage coopératif. Dans cet article, nous avons décrit chacun de ces cinq éléments comme un moyen de maîtriser l'apprentissage en petit groupe : l'interdépendance positive, l'interaction engagée, la responsabilisation du groupe et de l'individu, les habiletés interpersonnelles et liées au fonctionnement en petit groupe, et l'évaluation du groupe. Pour aider nos lecteurs à se souvenir des cinq éléments clés de l'AC, les cinq façons de maîtriser l'animation de petits groupes, nous avons créé une infographie.

Introduction

Through our experience teaching at all levels--and especially working with university faculty—we have seen both successful and unsuccessful attempts at using small group learning. We believe, informed by evidence¹⁻³ and experience, that well-structured, well-managed small group experiences can be effective for learning. The purpose of writing this article is to provide guidance for small group facilitators and curriculum organizers based on Cooperative Learning (CL) theory.^{1,2}

While Edmunds and Brown⁴ highlighted several points about small group learning that we agree are valuable such as questioning, listening, and responding; attending to the group dynamic; and developing discussion skills, we do not agree that it is difficult to get students to think or that the

success of small groups depends entirely on the communication skills and cognition of the students and facilitators. Their formulation seems to assume a lack of pre-requisite skills or even a lack of motivation and seems to exclude the potential for individuals and the group to learn the skills needed to function better. Based on CL theory, appropriate structure and facilitation creates a very positive and productive learning experience that can transcend,^{1,2} and improve the individual communication and collaboration skills of the group members. Our article corrects and goes beyond that of Edmunds and Brown.⁴

At the outset, we state two preliminary principles. First, the central purpose of the small group process is learning, not teacher activity. Facilitators need to expect that they are going to do the bulk of *their* work in advance but the

students will be very actively learning. Second, facilitators will not teach primarily by giving information as they are used to doing. Their work is done mostly in structuring the learning situation and helping the small groups to address the challenges they face. The learners will work hard and learn in their small groups while facilitators monitor and guide.

We and others have observed that by applying the CL instructional strategy people in small groups are more likely to learn and have a positive and rewarding experience.¹⁻³ CL posits five elements that influence the potential for a successful small group experience: positive interdependence, promotive face-to-face interaction, group and individual accountability, interpersonal and small group skills, and group processing. Our infographic (Appendix A) visually represents these five elements to help our readers remember them as a unit.

This article includes five short sub-sections, one for each element, each element a separate way to get a grip on small group learning. Each sub-section includes 1) a description of the element, 2) the black ice (pitfalls to avoid) taken from both our own experiences and from a brief review of a few published articles featuring small group learning, and 3) some practical ways to get a grip based on one element of CL. CL can (and maybe should) be combined with other educational strategies such as experiential learning.⁴ But, for the purposes of this Black Ice article, we are focusing on CL alone.

As indicated above, to supplement our list of small group issues, we conducted a short, focused review of articles published in both 2018 and 2019 in health professions education journals. RZ (one of the authors) found 36 articles⁶⁻⁴¹ involving small groups from these journals: (numbers of articles in parentheses): Nurse Education Today (9), BMC Medical Education (9), Journal of Nursing Education (8), American Journal of Pharmaceutical Education (7), Academic Medicine (1), Journal of Veterinary Medical Education (1), and Journal of Dental Education (1). MD summarized the descriptions of how the groups in these studies were organized and facilitated into the five elements of CL. We have incorporated these findings in the Black Ice descriptions for each of the five ways to get a grip. Unfortunately, there was little or no description of the small group processes from which to identify issues with the structure or facilitation of the groups. Our best intentions in conducting the short review were not fulfilled.

Making small groups work

A. Positive interdependence

Description: Building on diversity and inclusion, positive interdependence is the shared understanding that individual success is dependent on group success and that all members are valued and needed to complete the group task. Facilitators cultivate this spirit among group members by intentionally equipping each group member with unique contributions. Facilitators can ensure that group members bring different talents, strengths, skills, perspectives, and knowledge to the group through unique preparation and/or selecting for different life experiences. Positive interdependence makes each person's contribution integral to completing the group task and is thereby motivating while creating a bond between and among team members.

Black ice: Small groups fall short of their potential when members do not have unique contributions to offer or well-defined and distinct roles. Members may feel redundant and thus disengage. In our search of the literature in 2018 and 2019, we found 22 of the 36 articles described some way that the individual members had unique roles and contributions to make. In 13 of those studies, the small group work was interprofessional, where we assumed interdependence since students had different training (to some extent). Unfortunately, 14 of the 36 studies either stated that the groups were homogeneous or did not explicitly report on this important aspect of small groups. This important element is often neglected.

How to get a grip: Members can contribute more (and learn more) in the team experience when all are prepared especially in a unique way.

- Outline expectations, tasks, resource materials, and individual roles ahead of the team experience so that learners come prepared to work with their colleagues.
- Assign different readings to members of the team or allow time for individual members to jot down some ideas of their own before opening the floor to discussion.
- Assign roles such as manager, recorder, checker, synthesizer, challenger/skeptic, summarizer, observer, and even encourager.

B. Promotive interaction

Description: This element means a (usually) synchronous, purposeful, and relevant shared task or activity such as discussion, debate, or “develop [x]” that involves joint decision-making. In this (relatively) intense interaction, members draw each other into the activity where the other elements are established. Edmonds and Brown¹ highlight among their other Tips the importance of questioning, an essential activity for engaged interaction. CL emphasizes more than questioning but a whole range of techniques to encourage and sustain engagement.

Black ice: Instructors do not give the small groups an engaging application or problem-solving task to accomplish, but only a task of limited scope or relevance. If the task is easier, simpler, and quicker to complete independently, or if it can be delegated to individuals, the incentive to work together evaporates. Groups are often too large where it is easier for learners to stay in the background. Sometimes, within a classroom or multigroup setting, one or more small groups may finish the task earlier than other groups and then may be idle while waiting for other groups to finish. This may cause groups to wander off task. In eight of the 36 articles that we reviewed there was insufficient description to determine if the task was engaging. That so many authors do not provide even a brief explanation of how the task was designed to hold the attention of the learners reveals a deficit in small group teaching.

How to get a grip:

- Have a compelling, explicit reason (or set of reasons) for learners to work together as a team.
 - Scope the task appropriately. Ensure that a group is better able to accomplish the task than one or more individuals might be able to do. In health professions education, we often manage this element through the case design.
 - Clearly delineate deliverables; avoid the ambiguous term “discuss.”
 - Ask the groups to develop a product (care plan, concept map, research protocol, standardized procedure, brochure, educational session, or ideas for improvement for next time, etc.).
 - Assign supplementary or optional tasks for groups that may finish the primary task before other groups.
- To maximize interaction, create groups of 3-5 people. The average group size of the small groups reported in the 36 papers we reviewed (after excluding the obvious outlier of 30 in Reid²⁷) was 4.5-5.8 learners per group or roughly 4-6. We strongly recommend avoiding groups of 8-10 or larger.

C. Individual and group accountability

Description: To meet this element, the group product is assessed, and everyone is held responsible for contributing a fair share to the success of the group. Everyone is tested individually for learning and the group product itself is assessed.

Black ice: When small groups lack individual accountability, members may fail to invest in the process and may hitchhike on the work and efforts of others. Often, one or two individuals invest much more time and effort and yet all receive the same assessment. This creates considerable frustration among some group members and allows others to exert limited effort and still pass (or better). Thirty four of the 36 articles we examined (almost 95%) made **no** mention whatsoever of how accountability was managed. In the studies we reviewed, it seems accountability was considered an irrelevant feature of successful small groups. This is an issue that needs to be addressed.

How to get a grip: Both individuals and the group or group product need to be assessed.

- If the groups are discussing a case, then require they produce some form of management plan that you then assess.
- Assess the quantity and quality of the contributions provided by individual group members to a group product. Consider activity logs— in real time, team members add to the log what they have accomplished and contributed towards the completion of the group task. This helps students and teachers keep track of individual contributions in relation to target completion dates and milestones.
- Establish a structure available to both facilitator and members for tracking contributions and checking in with teams.

D. Interpersonal and small-group skills

Description: To be successful, team members need skills such as showing respect, sharing leadership, being assertive, and navigating interpersonal variations in

perspectives. The group members can learn and practice within an environment of sustained psychological safety and inclusion. Here, several of the Tips described by Edmond and Brown⁴ fit very well (listening and responding; attending to the group dynamic; and developing discussion skills).

Black ice: We often assume that learners know how to be effective team members. This aspect of teamwork is often left to chance--or hope--rather than integrating it *into* team agendas. Teachers assume that doing team projects will help learners develop team skills. Without explicit and direct experiences to highlight and reinforce this, learners tend to focus on “getting the job done” and not on what they can learn about being an effective team member *while* getting the job done. Thirty of the 36 studies we reviewed made no statement at all of any effort made to specifically train the learners in more effective interpersonal and team skills. If this element is neglected, small groups may not handle conflict well, won’t be able to maintain psychological safety, may allow real or imagined hierarchies to stifle contributions, and may not benefit from full participation by all individuals. Learners may labour under the misconception that all conflict is bad and therefore some people will be reluctant to raise contradictory ideas or alternative solutions. That so many articles did not even acknowledge the need for learners to continue growing in their skills is a major problem in establishing and running successful small groups.

How to get a grip:

- Intentionally teach team skills. Part of being “successful” is becoming a better team with each interaction. Bring this to the attention of the group members.
 - Spend time on the skills they need to succeed as part of a team. This may include reviews and reminders, or it may mean engaging in training, modeling, and coaching.
 - Teach and reinforce the skills that are used by effective high-functioning teams.
- Use less complicated team tasks to practice more complex team dynamics.
- Encourage team reflection on how teams worked together and individual reflection on one’s own contributions to the team.

- Directly address issues of hierarchy.

E. Group processing

Description: Group members individually and collectively analyze their actions and evaluate the effectiveness of the group process and product to decide what to do in the future. This takes place immediately after the small group session and is part of the agenda.

Black ice: When groups, learners, or even practicing professionals neglect examining their practices and skip a candid look at their own teamwork, they miss the opportunity to 1) address issues early enough to prevent dysfunctional interactions in the future and 2) enhance and grow positive skills and attributes. In our review of articles from 2018 and 2019 we found a substantial majority (72%), fully 26 out of the 36 we identified, did not describe or even mention debriefing how the group functioned. These studies reported debriefing the content of the sessions but not the group process. In the articles we found, this essential element of cooperative learning and small group activities was largely neglected.

How to get a grip:

- Include time for a meaningful and substantial debriefing
- Make individual and team reflective practice part of the assignment.
- Use an agreed-upon template or guide and train the learners and facilitators on how to conduct effective debriefings. Have a standardized procedure for setting up and for closing out meetings and times together that includes a focus on the process (and not always just the content).
- Create the role of “observer” who collects data on how the team functions and provides this to their teammates during the debriefing.
- Ensure a mix of uplifting and challenging comments using evidence informed practices of effective feedback⁴².

An example of CL in action

To help our readers integrate the five elements of cooperative learning into a small group activity, we present a “Jigsaw” activity, a learning structure that integrates all five elements of cooperative learning⁴³.

Each learner is assigned a unique set of materials to learn (**positive interdependence**). When they all come together

(in person or virtually – or both) to work as a group, they are instructed to practice especially one skill seen in effective teams such as asking for clarification or offering opinions and insights or encouraging each other. They have prepared by reading examples of that skill before joining their group (**interpersonal skills**). They first form small groups of learners who had read the same materials and together they ensure that they understand the main points in preparation for teaching their team members who had not prepared with those same materials (**individual accountability, promotive interaction**). Then, learners form mixed groups with those who had different materials and they discuss an issue or try to solve a problem for which each of the various sets of materials provides a different resource or perspective (**promotive interaction, positive interdependence**). Before the mixed group disbands, learners explain to each other what went well and how the learning experience might be better next time (**group processing**). After students return to their own spaces, each student provides a summary highlighting key points (**individual accountability**).

Conclusion

Successful groups do not happen by chance, and they do not depend solely or even mainly on the interpersonal skills of the learners and the facilitators. Cooperative learning theory tells us that small groups are successful when facilitators structure and organize the small group such that each and every one of the five elements of cooperative learning is carefully designed and implemented as part of a well-designed learning activity. We have described each of these five elements as ways to get a grip on small group learning. To help our readers keep the five key elements of CL in mind, we have created a one-page infographic. (Appendix A)

Conflicts of Interest: None

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Appendix A. Small group learning infographic

