



Teaching For Success® National Faculty Success Center

QuickCourse Series

# *Managing Small-Group Learning*





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# How to Make Small-Group Learning Work

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## 1 What's in It for Me?

Have you ever used small learning groups in your classes? Were you happy with the results? Have you considered making this instructional design an integral part of your courses, but aren't sure how to go about it? Do you have reservations about incorporating small groups into your curriculum, perhaps believing other methods are more successful? If so, you share concerns common throughout higher education.

This mini-course is designed to address these concerns and help you achieve successful results with small-group learning. It teaches you the benefits and major principles of small-group work, as well as how to properly assess it. It also addresses instructors' most common concerns, and concludes with several small-group structures that you can implement immediately.

However, this course only applies to small groups in the classroom; it's not about research collaborations between teachers and students or faculty members. Although much of the information presented here is



Planning and running small-group learning activities should be a key part of your instructional design and lesson planning. Small group learning works because it gets students involved at a personal level; it activates their senses and makes use of a wide range of thinking and communication skills. Small-group learning is active learning; it can increase a class's energy level in a way that traditional lecturing cannot.

gleaned from cooperative learning research, these tips can be practically used for a variety of small-group tasks.

Planning and managing small-group learning activities should be a key part of your instructional design and lesson planning. Small-group learning works because it gets students involved at a personal level; it activates their senses and makes use of a wide range of thinking and communication skills. Small-group learning is active learning; it significantly increases a class's energy level in a way that traditional lecturing does not.

If you teach early-morning, evening, or weekend classes to busy adult, part-time students, you know how tough it is to keep even the most motivated students fully engaged in learning for 50 to 100 minutes of instruction. Small-group learning activities fit in perfectly, with 20-minute or shorter mini-lectures recommended by current learning research. Twenty minutes is about the maximum length of time students maintain productive attention.

Small-group learning (SGL) also works well in the TFS PIE-R<sup>3</sup> accelerated teaching and learning lesson model (see *How to Create A+ Lesson Plans*, a Teaching For Success Quick Course) For example, the third step of this model is labeled *Exploration*. In this phase, the learner is given opportunities to explore new content using a range of intelligences and learning styles. Small-group learning facilitates this lesson component and should be used whenever possible.



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# 2 Principles of SGL

SGL is a common technique in collegiate instruction, and it has a plethora of benefits for students. According to Johnson, Johnson, and Holubeck (1994), as well as Kagan, small-group learning can bring improvements in areas such as these:

- Tolerance and positive interactions among students from different cultural backgrounds
- The exchange and processing of information
- Academic achievement
- Ownership of new knowledge and skills
- Opportunities to solve real-world problems
- Positive attitudes toward the content
- Openness to new perspectives
- Motivation to learn
- Confidence in one's social skills
- Psychological health (e.g., social development, self-esteem)
- Attendance

Wow! Quite an impressive list, wouldn't you agree? And using small groups does not have many detrimental effects at all. How can we be sure of that? Because SGL is among the most researched of all the teaching methods (Johnson, Johnson, & Smith, 1991).

Though SGL promises many educational benefits, they are less likely to be realized if you don't know some basics of how to manage groups and group processes. The next two sections will provide you with the practical details of how to use this technique successfully in your classes.



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## Basic principles of SGL

Knowledge of the operating principles of SGL will help you increase the productivity of small groups. Johnson and Johnson, as well as Kagan, provide simple ways of remembering these principles. Johnson and Johnson tell us to remember the word PIGS, while Kagan's mnemonic is PIES (Active Learning Center, n.d.).

In Johnson and Johnson's model, **Positive interdependence**, **Individual accountability**, **Group interaction**, and **Social skills** (PIGS) are the bases of successful small groups. Let's review each PIGS factor.

### Positive interdependence

This factor is important because group members should realize that they not only need each other to complete the overall task, but also that each group member is responsible for the success of every other member. Johnson, Johnson, and Smith (1991) call this "sinking or swimming together," because small-group members will all succeed or they will all fail at completing the assignment. You can develop interdependence by giving your students a limited amount of resources, one goal for the entire group, or rewards to all group members. Assigning a different role to each individual can also strengthen interdependence. Some of these roles may include spokesperson, recorder, and verifier of information (Johnson, Johnson, & Smith).



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**Individual accountability**

Whether you grade each student's contribution or the group's collective efforts (the project), each member must be held accountable for his or her share. This is a critical group success factor.

Without individual accountability, two common problems are likely to arise: either an apathetic member may not contribute at all or contribute very little, or the group member most concerned about the grade may dominate the project, and possibly complete the entire project on his or her own. In both of these scenarios, the grades of all members may be skewed up or down.

Another reason this factor is so important is that it keeps students on-task and focused. Assigning roles to students is one way to increase individual accountability. Other ideas to help you bring individual accountability to the project are provided in Chapter 4, "Assessment Issues."

**Group interaction**

Group interaction has many facets. For instance, through discussing concepts, sharing personal experiences, solving problems, and encouraging each other, group members help each other learn the concepts. However, to promote interaction and progress, students need to be skilled at challenging each others' conclusions.

**Social skills**

The social skills needed to competently complete a small-group task include leadership, communication and active listening, delegation, conflict management, and decision making. You will have to take into consideration the personal experiences and maturity of the whole class when deciding whether these skills should be formally taught during class.



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**PIES principles**

Kagan (Active Learning Center, n.d.) also emphasizes **Positive interdependence** and **Individual accountability**, and then adds **Equal participation** and **Simultaneous interaction**. These factors are examined below.

**Equal participation**

Unlike class discussion in which only the gregarious students volunteer their opinions, each student is expected to contribute equally in small groups. This may involve dividing the work in each group equally as well as equally dividing the amount of time spent on the work. For example, you may give a pair of students four minutes to discuss a concept. For half that time, one student in the pair can share while the partner is actively listening. After two minutes, the students can switch roles for the remainder of the time.

**Simultaneous interaction**

Students work in the same place, at the same time. This way, students are able to discuss concepts, actively listen, and quickly solve problems. However, this concept may be unrealistic for adult on-line learning, because students in different geographical locations may not be able to meet at the same time.



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In these cases, you may require students to discuss ideas using online chat rooms, whether the chat is synchronous or asynchronous.

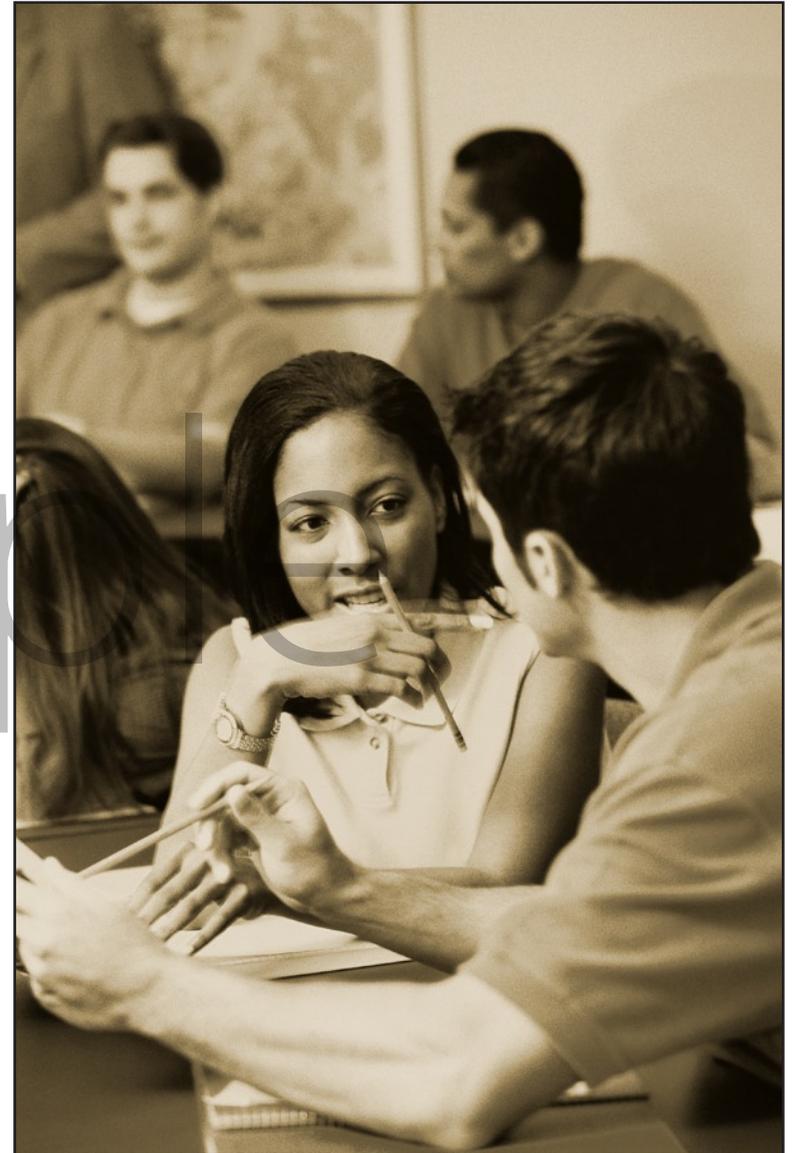
Besides remembering and applying PIGS or PIES factors, the productivity and positive experience of small-group work also rely on three other important elements: the purpose of the task, the type of group, and the composition of the group ([Cooperative Learning](#), n.d.; [Dillenbourg & Schneider, 1995](#)). Keep in mind that the type of group and the group composition will depend upon the purpose of the SGL exercise, and the part it plays in your overall instructional design.

Please, don't stop now. You are doing great. The next chapter will give you some practical tips on how to boost your success rate while using SGL activities. There are pitfalls to avoid and effective strategies to master.

These concepts aren't difficult or time-consuming, and the rewards of knowing the facts can save you much frustration in the classroom; so turn the page or click to the next chapter.

*Teaching should be such that what is offered is perceived as a valuable gift and not as a hard duty.*

—Albert Einstein



**S**mall group work may be implemented face-to-face in the classroom or over chat networks suitable for online classes.



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# 3 Improving Success

According to the Center for Excellence in Learning and Teaching at Penn State University (1997), "If there's no good reason for an activity to be collaborative, perhaps it should not be." This advice should be heeded for any small-group task. Therefore, when choosing an SGL exercise, first define your instructional goal (e.g., problem solving, reviewing of material, networking or building group cohesion, increasing social skills, reinforcing a concept, etc.).

## Directions? Don't start without them

Whatever your purpose, give students clear, explicit directions and state your expectations. Also, explain to them the purpose of the SGL exercise (Nilson, 1998). By introducing small groups in this way, you give context to the task and help them relate the small group to the course.

Be sure to discreetly monitor the functioning of all the groups. Circulate among the students, but avoid being invasive unless a group question needs to be answered. If you assign out-of-class group projects, you may require the group to meet with you sometime during the course of the project (perhaps scheduling group conferences instead of class) or require them to periodically submit journals.

If journals are used, each group member should submit a separate journal describing how the group is progressing and what he or she has achieved thus-far. Requiring that a product be submitted encourages the group to stay on task and promotes individual accountability.



Monitor group functioning, and while in class, circulate among your student groups, but avoid being invasive unless a question needs to be answered or the group seems unable to proceed on task. Part of the SGL process involves members making creative use of the special dynamics inherent in each group.

## Out-of-class work considerations

Furthermore, if you assign projects where most of the work is done outside of class, limit these projects to one per term, and allow plenty of time for completion. Students nowadays have many obligations besides schooling, and meetings outside of class pose a hardship for many students because of family commitments, work obligations, and commuting hassles (Watson, 1996). If you assign out-of-class projects, you may require students to have e-mail accounts so these "group meetings" can be done asynchronously.

Even when you describe your expectations and monitor the progress of assignments, problems still arise. When they do, you may find presenting a mini-workshop during class on member roles and group dynamics to be quite effective (Felder, 1995). Do this especially if you see a problem in more than one group.

## Group types

There are three types of learning groups, and each has a special advantage. These learning groups are called informal, cooperative, and collaborative.