Postsecondary Teaching with Technology Collaborative

Student Peer Interaction and Networking (SPIN)

SPIN activities support students' motivation by helping them feel a greater sense of belonging in the class. There are two related SPIN activities:

1. An introductory questionnaire administered during the first week of class
2. Collaborative activities at least twice during the course.

Motivational processes provide the foundational emotions and beliefs that energize students' approach to learning. These are the emotions and beliefs around learning.

These activities support students by providing a structured way for students to connect more with one another. Faculty in previous pilot studies have seen evidence that these activities can be independently supportive of students connecting with other students and/or engaging in more help-seeking behaviors with other students.

Using SPIN in Your Teaching

The text below provides a brief overview of the two SPIN activities and their frequency and timing in the course.

SPIN Activity 1: Introductory questionnaire

The introductory questionnaire should ask students to share nonacademic information to help them get to know one another better, find shared experiences and connections, and promote a course atmosphere in which students can "bring their full selves" to class.

Here are some example questions:

- Fun:
  - What are the hobbies, pastimes, or activities that bring you the most joy?
  - What is your favorite type of food?
  - When was the last time you had a good belly laugh? What was it about?
  - What's something you did recently that you're particularly proud of?
  - What's a hidden talent or skill that you have that most people don't know about?
  - What's a regular tradition you have with your family, your friends, or yourself?
  - What's a movie, book, TV show, or other form of media you'd recommend to your peers?
- School:
  - How far away from campus do you live?
  - What time of day do you usually do school work?
  - Are you employed?
  - What is your intended major or career path?
  - What advice do you have for other students taking an online science or math course?
  - How do you prefer to communicate with other peers?

Select questions that showcase students' strengths, provide opportunities for students to connect with one another, and respect students' comfort levels and privacy. Then, create a summary of students' responses and share those with the class.

Finally, provide either a synchronous or asynchronous space to share the summaries of student responses. Encourage students to share their reactions to what they learned about their peers with one another. Instructors are encouraged to answer the questions for themselves and share their answers. Instructors can also use the questionnaire data to inform other instructional activities, including creating groups.

SPIN Activity 2: Collaborative activities

There are options for integrating collaborative activities into synchronous and/or asynchronous courses. Instructors can consider the best way to form groups, given course structure and student questionnaires.

Option 2a: Synchronous collaboration

Instructors should provide 15 minutes of class time for students to **engage in peer-work** questions with one another in class. Instructors can provide the peer work in advance of the class, "in the moment," or a mix of the two. Ideally peer work occurs in small groups to have more dialogue space and provide each student with more time to participate. Instructors can facilitate a **reflective, summative review** of the peer work before the end of class.

Examples of synchronous collaborative activities in synchronous courses

- Students are put into breakout groups to review a prior homework assignment question. Students are prompted to share their approach to the problem and resources they found most useful to understand the content. As a reflective activity, student groups might share the key points of their discussions with the entire class.
- Provide practice questions at the start of class, and then students solve these practice questions together live in small breakout groups. As a reflective activity, groups might submit their answers to each question to a shared space, and then the instructor can review the answers to each question and identify misconceptions that some groups had in their answers.
- Students can discuss concepts they are having difficulty with, and then submit a group question for the instructor.

Option 2b: Group assignments

Instructors should incorporate at least **two group assignments** into their course, providing a meaningful opportunity for students to collaborate with one another on a shared academic task. Then, instructors can **assess group assignments**, collectively and individually. When assessing group assignments, instructors should use **rubrics to ensure students understand the expectations**, both in terms of content and process. Finally, instructors should provide **reflective, summative feedback** to the class on how the group assignment went (in aggregate) and how students can improve how they work with one another on such assignments.

Examples of collaborative activities in synchronous or asynchronous courses

- Jigsaw: Each member of a group becomes an expert in one topic. Then, the group works together on a shared task that requires the expertise of each group member.
- Concept mapping: Create a visual representation of connected concepts that are often presented as a diagram, flow chart, hierarchy map, or system map, building in sections for students to complete or errors for them to fix. Students can work on this individually or in small groups.

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