

Self-Directed Learning Videos

Short videos with corresponding reflection questions introduce key self-directed learning (SDL) skills to students and invite them to reflect on how they can practice these skills in their own courses. As students watch these videos, they will become familiar with how to build motivation through an improved sense of belonging and a growth mindset, and how to implement the applied learning process of time management. These skills—fostering sense of belonging, developing a growth mindset, and structuring learning time effectively—ease students' sense of isolation and promote engagement, contributing to improved student outcomes.

Each of the three videos are shown toward the beginning of the course, with a corresponding reflection activity. By engaging with these videos at the beginning of the course, students will have the opportunity to apply their learnings across the course. The videos package includes reflection prompts that can be used flexibly and assigned at any point during the course.

I can!

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



Applied learning processes put that plan into action and adjust it as needed. These are learning techniques and selfdiscipline strategies that help students take greater ownership of achieving specific learning goals.

The video series includes three videos:

- 1. Video 1: Building Classroom Connections for Success
- 2. Video 2: Managing Your Learning Time
- 3. Video 3: Developing a Growth Mindset

Each video should take students about 20 minutes to complete, with 10 minutes to view the video and 10 minutes to reflect.

Using Videos in Your Teaching

The table below provides YouTube links for the three 10-minute videos, a brief overview of intended outcomes, and frequency and timing. Each video will be shown once during the course, at the times outlined in the table, and followed by a reflection activity. Instructors can embed the reflection questions a discussion board prompt, student survey, or course assignment. Each video has four parts. It begins with an introduction to review the objectives of the video. Next, it defines the SDL skill or mindset that is the focus of the video. The video then shares concrete strategies to develop that skill and closes by introducing the reflection activity.

Video	SDL Skill/Mindset Description	Timing
Video 1: Building Classroom Connections for Success	Sense of belonging: Many students struggle with feeling like they belong in online STEM courses, and there are strategies to help build a sense of belonging.	First week of the course
Video 2: Managing Your Learning Time	Time management : Structuring learning time is vital to success in a course, including spacing learning across a semester.	Within the first 2 weeks of the course
Video 3: Developing a Growth Mindset	Growth mindset : The brain acts like a muscle in that it can grow due to neuroplasticity. Understanding the idea of neuroplasticity helps students develop growth mindset.	After the first major assignment or assessment



Reflection Questions

Here are the reflection questions that follow the video. Instructors can adapt the language to reflect their specific course and student needs.

Video 1: Building Classroom Connections for Success

Reflection Questions

- 1. For each of the following statements, rate yourself from a score of 5, meaning you strongly agree, to a score of 1, meaning you strongly disagree.
 - a. It's personally important to me to pass this class.
 - b. I feel highly confident that I can succeed in this class.
 - c. I feel I belong in the class.
 - d. I can succeed in this class based on my hard work.
- 2. Student story 1 reflection. Consider: What did you learn from this student's experience? (2–3 sentences)
- 4. Student story 2 reflection. Consider: What strategies did this student use to feel more connected? What does hearing this story make you feel? (2–3 sentences)
- 5. Please reflect on a time when had an experience of feeling like you did not belong in a course. How did you address it? How did you wish you addressed it? (3–4 sentences)
- 6. Which of these strategies do you plan to apply in this course? For your chosen strategy, outline a plan for how you will implement it: What students will you reach out to? Do you know your instructor's office hours? (3–4 sentences)

Video 2: Managing Your Learning Time

Reflection Questions

- 1. For each of the following statements, rate yourself from a score of 5, meaning you always do it, to a score of 1, meaning you never do it.
 - a. I read the syllabus at the beginning of the course to know when my major commitments will be.
 - b. I create a plan to study content.
 - c. I know when I am on track to meet my learning goals.
 - d. I seek help when I am confused.
- 7. Student example reflections: What was the difference in how these two students approached learning the material? Which do you think was more effective? Why? (2–3 sentences)
- 8. Student story 1 reflection. Consider: How did this student structure their learning time? What strategies did they use?
- 9. Which of these strategies do you plan to apply in this course? For your chosen strategy, outline a plan for how you will implement it: How will you space your learning? How will you structure a study session? (3–4 sentences)

Video 3: Developing a Growth Mindset

Reflection Questions

1. For each of the following statements, rate yourself from a score of 5, meaning you strongly agree, to a score of 1, meaning you strongly disagree.



- a. I like my work best when I can do it perfectly without any mistakes.
- b. I like my work best when it makes me think hard.
- c. I like my work best when I can do it really well without too much trouble.
- d. When something is hard, it just makes me want to work more on it, not less.
- e. To tell the truth, when I work hard, it makes me feel as though I'm not very smart.
- f. I like work that I'll learn from even if I make a lot of mistakes.
- 10. Student story 1 reflection. Consider: How did this student reframe their thinking to be more positive? (2–3 sentences)
- 11. Think of some mistakes you have made that ultimately taught you how to improve your performance. What mistakes have you made in your current class that you might analyze more closely?
- 12. Student story 2 reflection. Consider: How did this student approach the challenge of her online statistics course? (2–3 sentences)
- 13. Reflect on a time a time when you overcame a struggle to learn something. Reflect on the times when you failed at first, but through perseverance your brain became stronger and you eventually became better at the task at hand? (3–4 sentences)
- 14. Which of these tips are you most excited to try out? Which do you think will be most effective and why? (3–4 sentences)









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