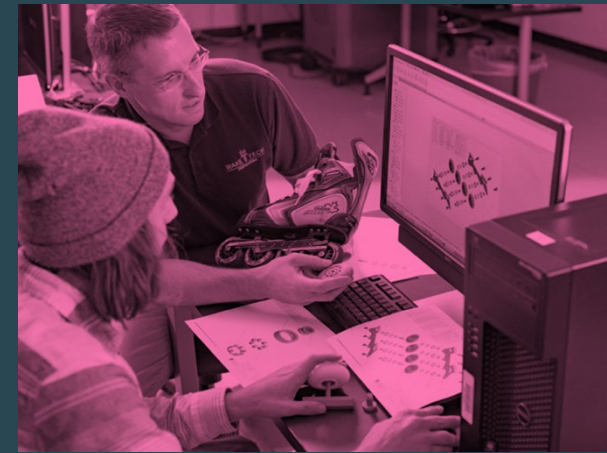


Strategies to Support Self-Directed Learning in Online College Courses

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Research Center;
Hannah Cheever, SRI;
Nikki Handley and Chey Natividad,
Odessa College*

July 16, 2026



Today, We Will:



Introduce the Self-Directed Learning (SDL) Instructional Model

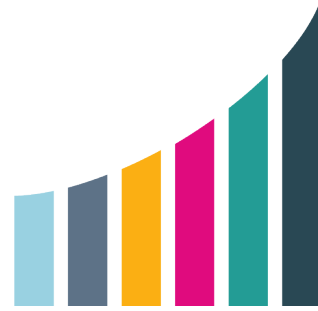


Review research and evidence behind the SDL Instructional Model



Hear faculty and student perspectives on using the SDL Instructional Model

What is the Collaborative?



An Institute of Education Sciences (IES)-funded research and capacity-building center that aims to study and improve how faculty **teach** and use **technology** to help students apply and strengthen **self-directed learning** in online STEM courses.

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CCRC COMMUNITY COLLEGE
RESEARCH CENTER
Teachers College, Columbia University

The What and Why of Self-Directed Learning (SDL)



Online Learning Challenges



Student outcomes are generally worse in online courses and degree programs than in comparable face-to-face ones



Less engagement and interaction in online environments

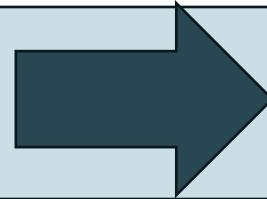


Key factors: Greater demands on students' self-directed learning capacities; need for belonging and community

Challenges and Consequences in Online STEM Courses

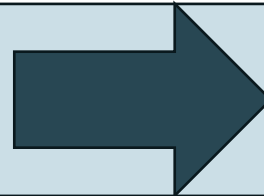


Students must manage deadlines and expectations more independently



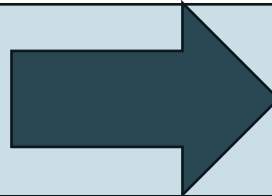
Easier to lose track and fall behind

Students may feel isolated or unsure they belong



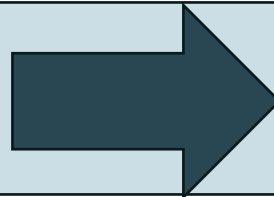
Lower engagement

Students may feel like it's harder to ask for help



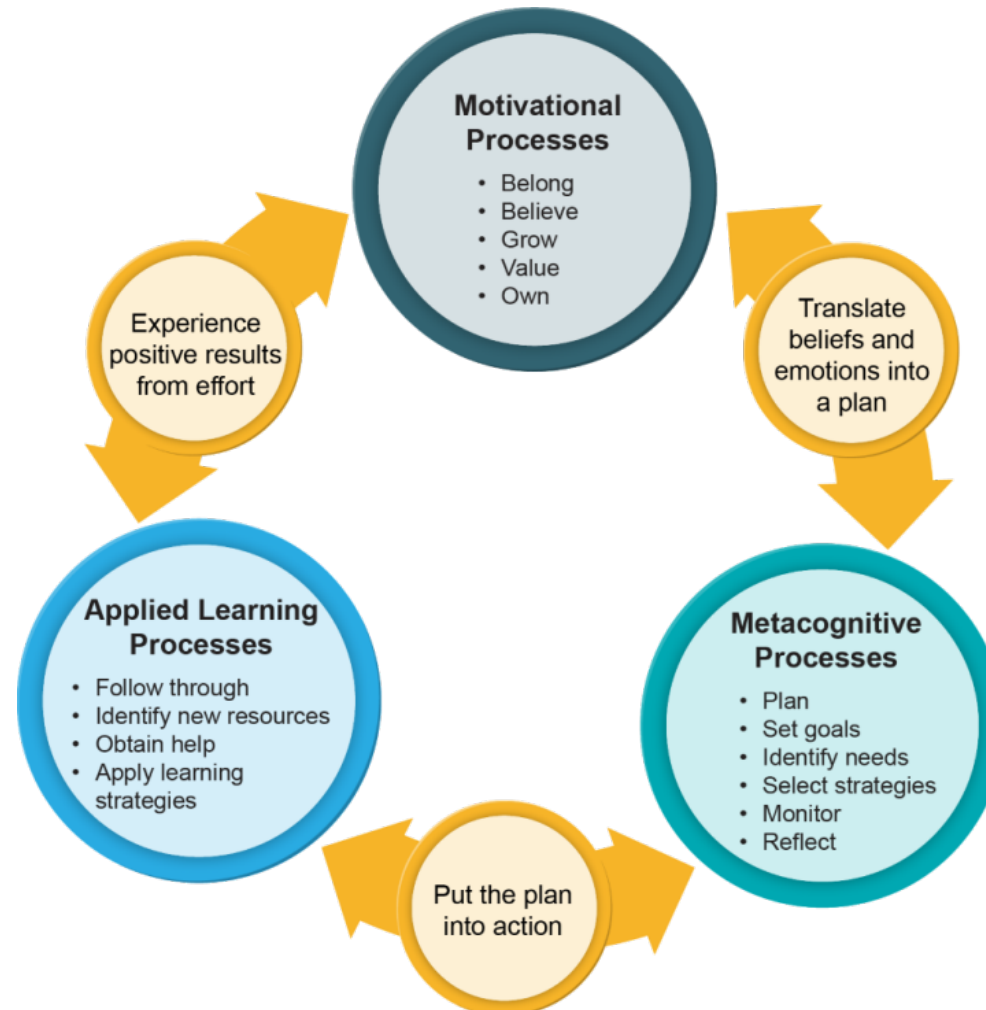
Small issues turn into big problems

Students may feel the course is content heavy with no personal relevance



Lack of motivation and not seeing value in course

Framework for Self-Directed Learning (SDL)



Check out the Collaborative report, *Teaching and Designing Online STEM Courses to Support Self-Directed Learning Skills*, to learn more!



Self-Directed Learning (SDL) Instructional Model



Created in Partnership



Faculty, staff, researchers, and experts across our partner institutions, advisor groups, and partner organizations:



Informed development and evaluation plans



Participated in formative pilot evaluations



Co-designed strategies and supplemental materials



Offered feedback throughout design and evaluation process

SDL Instructional Model



Three evidence-based strategies to help college students manage their online learning better:



Three short videos to boost sense of belonging, time management skills, and confidence through growth mindset

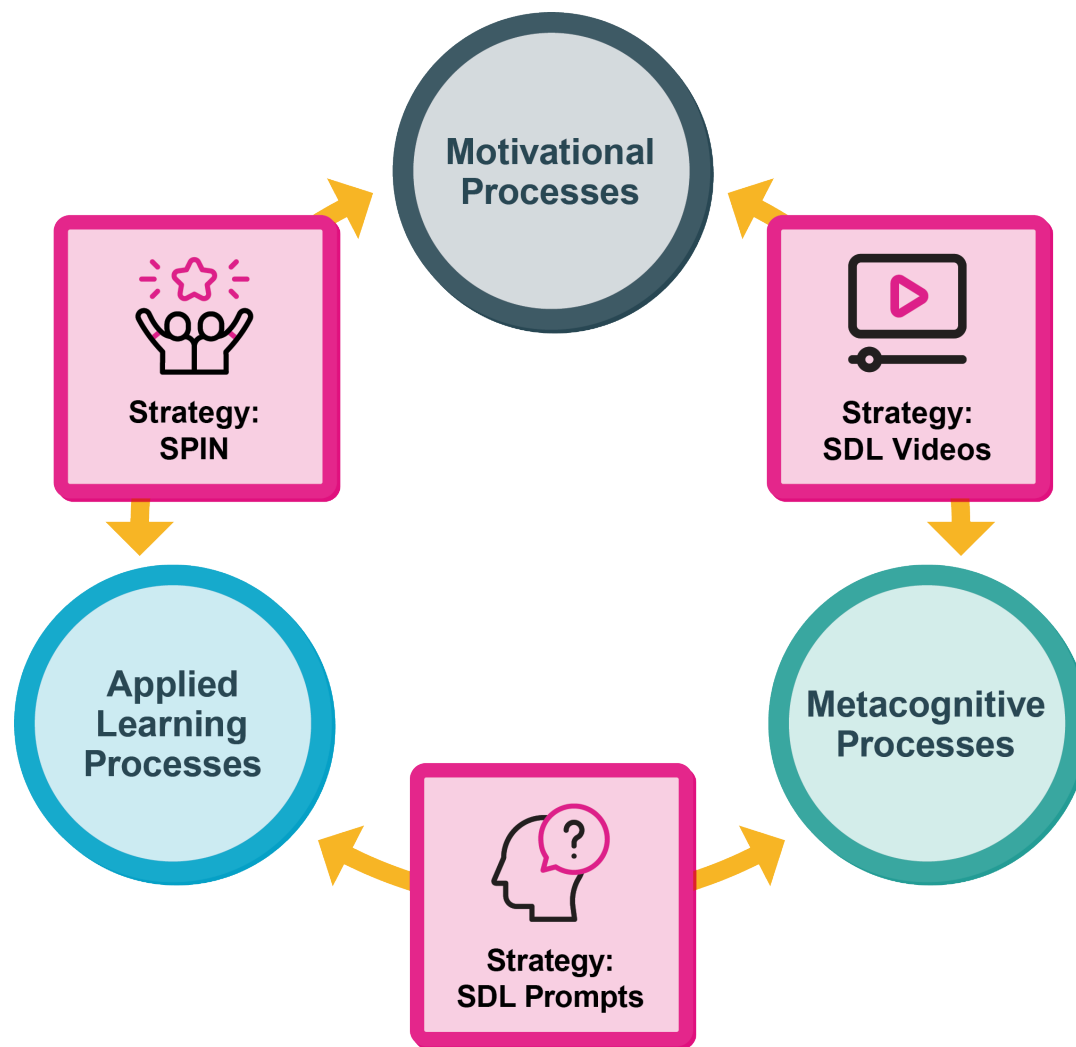


Questions to promote reflection, task planning, progress monitoring, and help seeking



Introductory questionnaire and collaborative activities to foster belonging and promote help-seeking

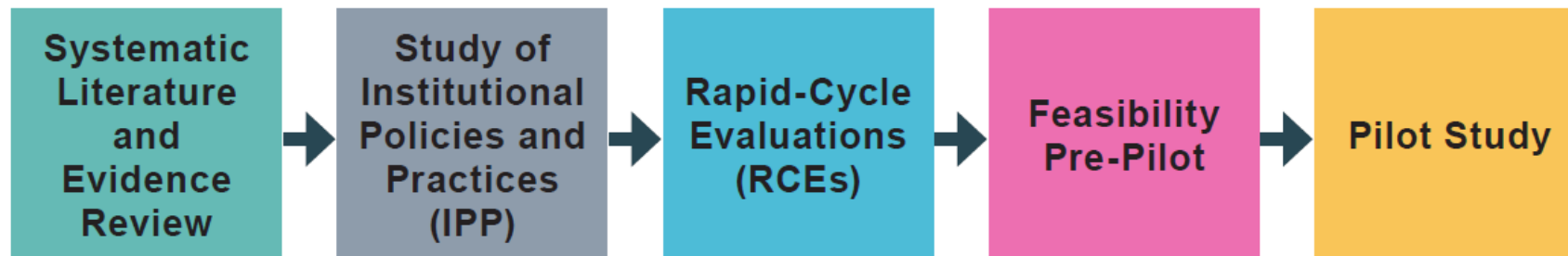
Aligned with the SDL Framework



Informed by Research and Practice



- Strategies are evidence-backed and responsive to online learning challenges.
- The Instructional Model was co-developed with faculty and institutional leaders and reviewed by students and experts.



Co-design process with faculty and institutional leaders



50% of students reported low SDL skills usage in a survey when entering their online/hybrid course.

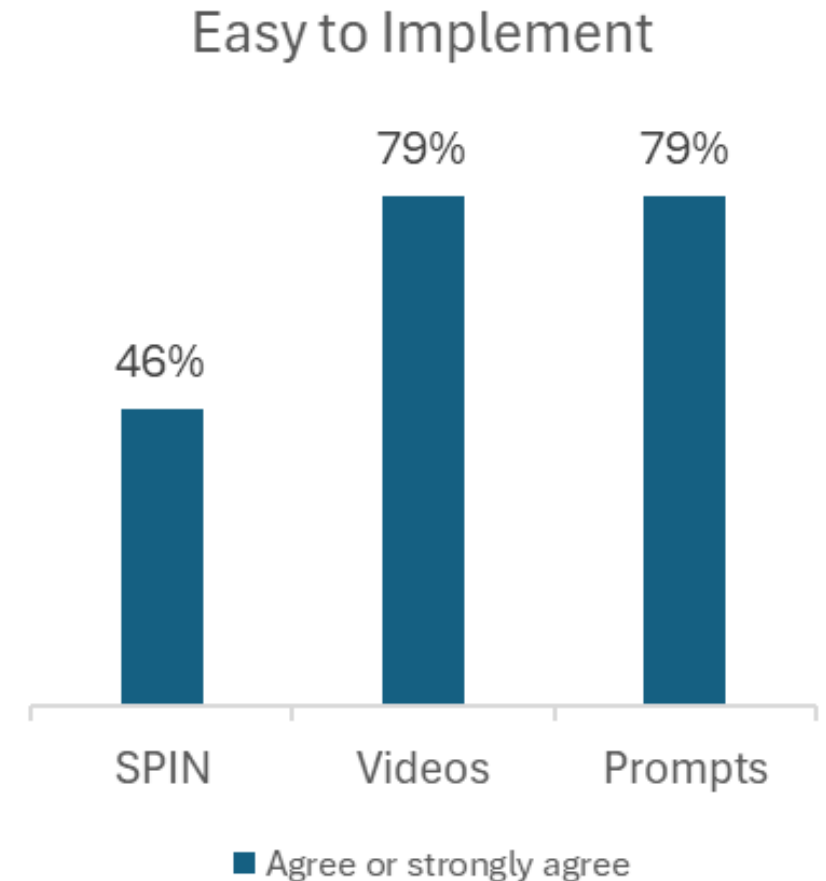
Feasible and Ready to Use



- Materials and resources are freely available and adaptable to various contexts.
- Strategies are designed to be a light lift for faculty and for students.
- Ready-to-use text can be copied and pasted into any LMS.



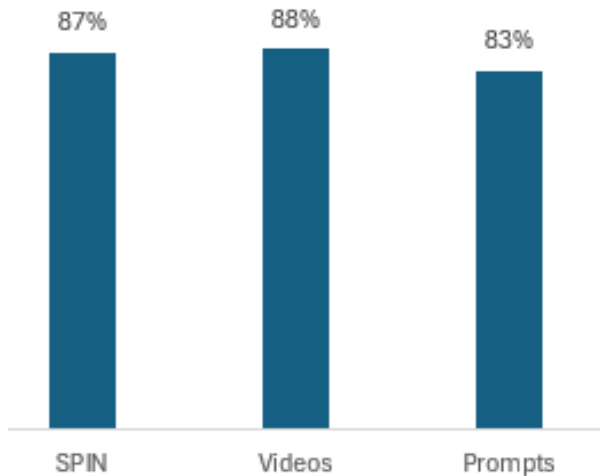
Most instructors found the strategies **easy to integrate** into their existing course structure and technologies, but the SPIN collaborative activities were more challenging in asynchronous courses.



Valuable to Instructors and Students

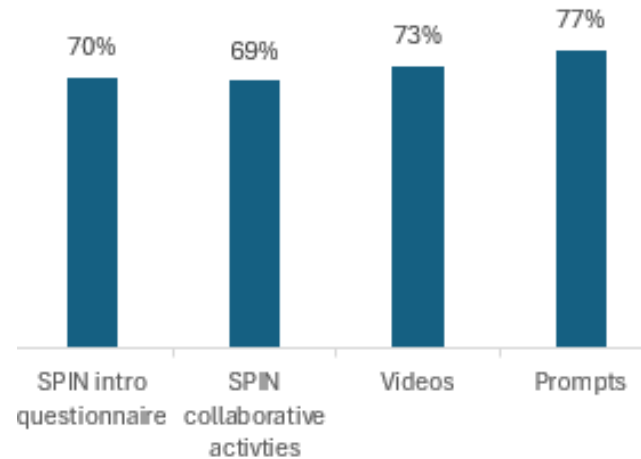


Valuable for my students



■ % of instructors who agree or strongly agree

Valuable for me



■ % of students who agree or strongly agree

- Instructors found the strategies useful for ***real-time adjustments to course content.***
- Students saw value personally, or for others with less college/online course experience.



Most instructors found all three strategies to be valuable and/or useful to their students—even SPIN, which was more challenging to implement.

Source: Pilot Instructor and Student Surveys

Explore Our Research Brief to Learn More!



Supporting Self-Directed Learning in Online Courses: Findings from a Pilot Study

By Susan Bickerstaff, Carl Lewandowski, and Ela Joshi
Community College Research Center and SRI

July 2026 | Brief



Summary

The Postsecondary Teaching with Technology Collaborative created the Self-Directed Learning (SDL) Instructional Model to help students in online courses develop effective learning habits. The Instructional Model consists of three strategies—involving collaborative activities, videos, and short-answer prompts—that can be implemented in a course in any content area to promote students' sense of belonging, self-efficacy, planning, reflection, and help-seeking.

This research brief reports findings from a pilot study of the SDL Instructional Model conducted with 24 faculty in four community colleges and one university. Study activities included interviews with faculty, students, and administrators; surveys of faculty and students; and analysis of course outcomes. The study found that faculty and students perceived the Instructional Model as valuable and distinct from typical practice in online courses. Faculty reported that the model was relatively easy to implement, although designing collaborative activities appropriate for an online course was challenging for many. The study did not detect statistically significant effects on students' self-reported skills or mindsets or in their end-of-course grades. Null effects may be the result of low survey response rates and the small sample size; they may also suggest opportunities to refine the design and implementation of the Instructional Model. Other studies of the model's strategies point to their promise to improve skills and academic outcomes.

Study findings suggest that institutions can promote adoption of the SDL Instructional Model and support faculty to realize its full potential by offering professional development and peer learning opportunities and by embedding the strategies into course shells in an institution's learning management system (LMS).



Even More Research!



SDL framework and review of effective SDL interventions

Feasibility of implementing the SDL Instructional Model

Faculty and student experiences

Detailed findings from the Rapid-Cycle Evaluations

Students' profiles of SDL learning

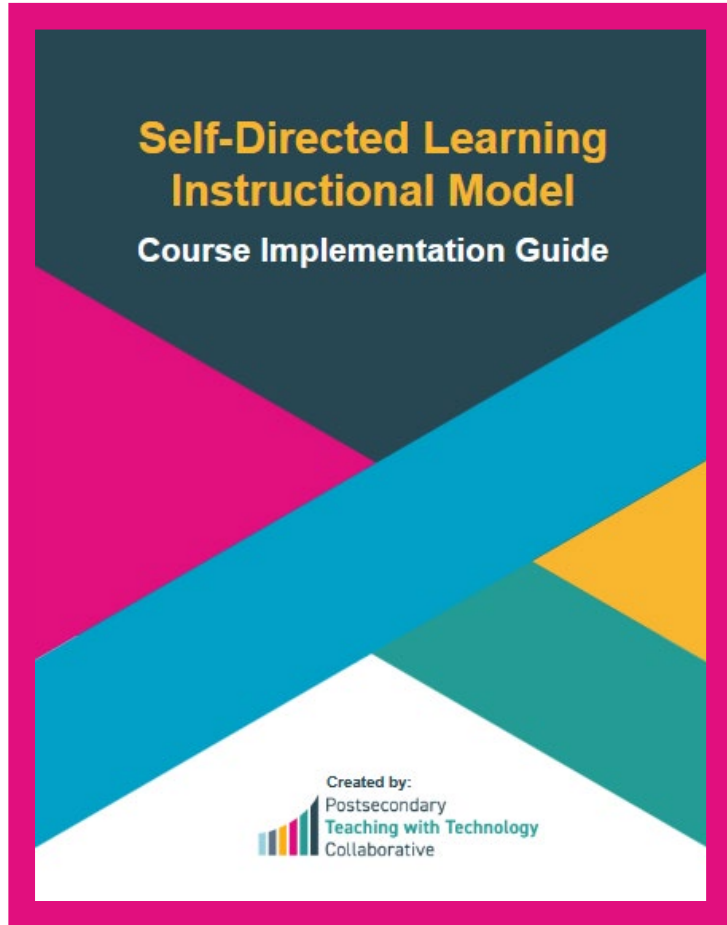
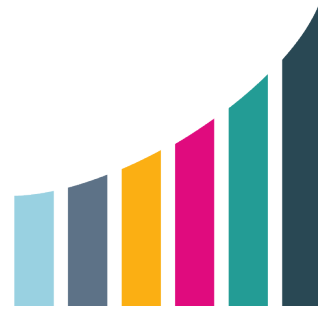


And more on the way!

Resources to Implement the SDL Instructional Model



Course Implementation Guide

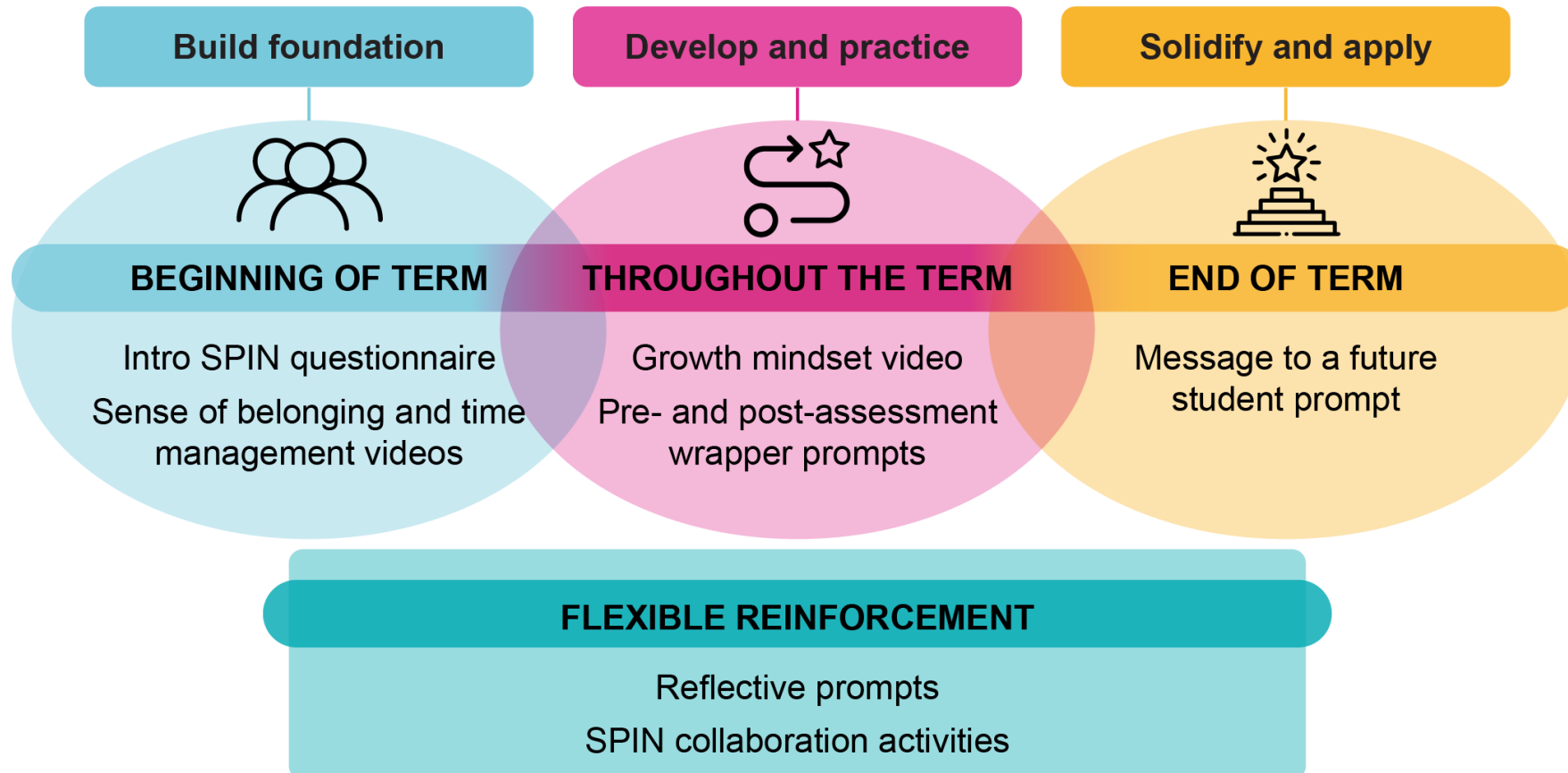


View the [Course Implementation Guide](#) for detailed instructions for faculty to integrate the strategies into online courses, including ready-to-use text, implementation supports, and optional adaptations for different course lengths and types.

Three main parts:

- Self-Directed Learning Instructional Model: An Overview
- How to Implement the SDL Instructional Model
- Deep Dive into the Three Strategies

SDL Strategies Throughout the Term



SDL Video Series



Activity	Target SDL Skill	Course Pacing	Estimated Time for Students
<u>Sense of Belonging video</u>	Develop sense of belonging	First week of the course	20–30 mins
<u>Time Management video</u>	Plan for learning	Within the first 2 weeks of the course	20–30 mins
<u>Growth Mindset video</u>	Build confidence and self-efficacy as a college student	After the first major assignment or assessment	20–30 mins

“I was inspired by one of the videos to start [a WhatsApp group]....we were all a little bit confused..., so we collaborated together, and somebody was able to find a website that helped with that discussion.”



Strategy:
SDL Videos

Three Types of SDL Prompts



Activity	Target SDL Skill	Course Pacing	Estimated Time for Students
Reflective prompts consist of a set of three questions that can be assigned at any time during the course.	Self-reflection Seek help	Twice	10–20 minutes
The assessment wrapper consists of a two-part activity that should be assigned a week before a major assessment or assignment (pre-assessment) and after the student has received their grade (post-assessment).	Plan for learning Self-reflection	Once before and once after an assignment	30–40 minutes
The message to a future student invites students to reflect on their course performance and can be assigned as a written reflection or a video recording.	Self-reflection Confidence and self-efficacy	Final weeks	20–30 mins



**Strategy:
SDL Prompts**

Student-Peer Interaction and Networking Activities



Activity	Target SDL Skill	Course Pacing	Estimated Time for Students
Introductory questionnaire	Sense of belonging	First week	10 minutes
Collaborative activities	Sense of belonging Seek help	At least twice	Varies



“I later understood it gave my class more of a human aspect and gave us a chance to see who we are.”



SPIN Collaborative Reflection Tool

	Things that went well (1–2 sentences)	Lessons learned for future collaboration (1–2 sentences)
1. Roles and Tasks: Our team worked collaboratively to assign roles and tasks for each member. Each team member understood their role and tasks.		
2. Time Management: Our team worked well to		

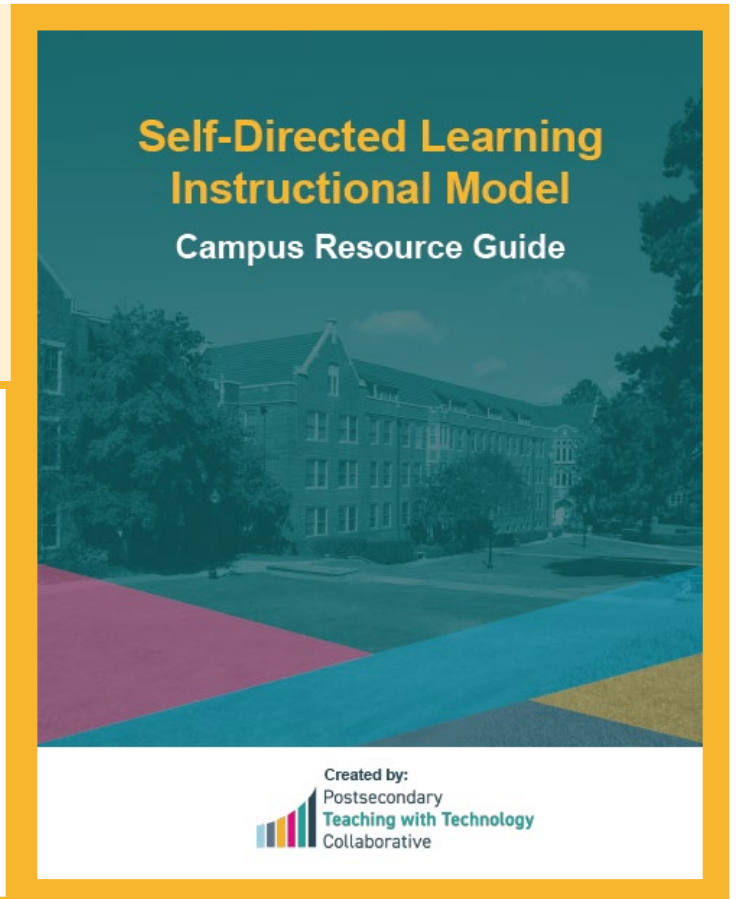
Campus Resource Guide



To encourage institution-wide use of the Instructional Model, the [Campus Resource Guide](#) has practical tips for college leaders, staff, and others who set the vision for instructional excellence at the college or university.

Three main parts:

- The Science Behind Self-Directed Learning
- Tips for College Leaders
- Resources for Educational Developers



There's More!



Getting Started



Making the Case

Voices from the Field: Student and Instructor Panel



Meet the Panelists



Nikki Handley

Associate Math Professor and
Pathway Coordinator
Odessa College



Cheyenne Natividad

Student
Odessa College

Questions?



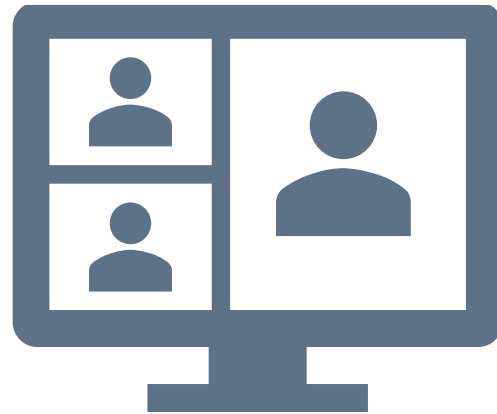
Closing



Learning More!



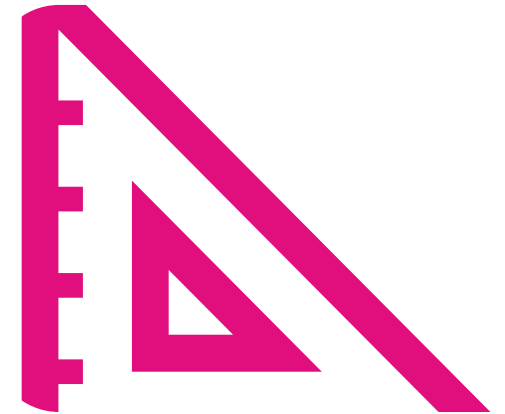
Instructional
Model Design



Instructional
Model
Implementation

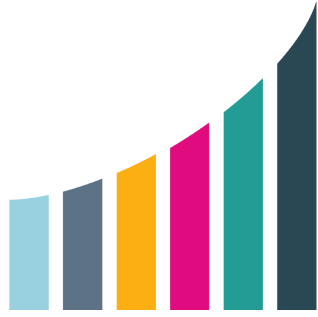


Impact of the
Instructional
Model



Measuring SDL
Skills & Mindsets

What's Next?



Explore the Instructional
Model and the
implementation resources



Check out our research
publications
(with more to come!)

Contact Us!

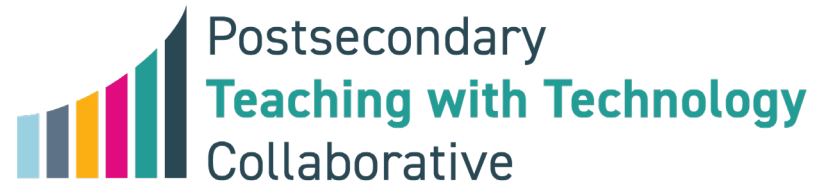


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Thank You

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