Powerful Protocols

Processes and structures to support deep learning

New Pedagogies for Deep Learning™

A GLOBAL PARTNERSHIP

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Facilitator's guide for Protocols for New Pedagogies for Deep Learning

What are protocols?

Protocols are evidence-based instructional strategies that provide processes and structures for:

- engaging in active listening;
- promoting dialogue; and
- encouraging questioning and thinking.

They are transferrable to classrooms for deeper student learning and to discussions in faculty meetings or capacity building sessions.

Purpose of protocols

The protocols are designed for small groups (2-5), giving each person a voice in the conversation.

The Learning Loop outlined below is the foundation for the facilitation of the protocols.

View/Read and reflect

Interact with colleagues

Apply in own context

Reflect and revise
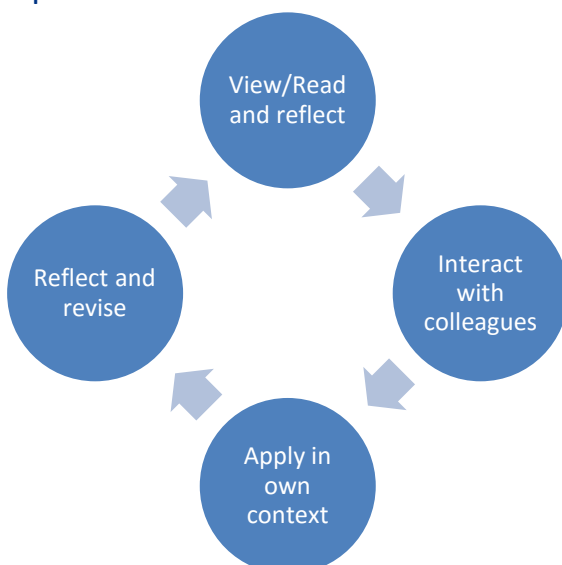
When participants are engaged in similar experiences and have the opportunity to discuss new ideas, learning not only improves, capacity is built. In addition, coherence is created through the development of a common language and knowledge.

This guide provides facilitation instructions for twenty protocols that promote deep learning. They are designed to support faculty in meaningful interactive professional learning.

Included are recommendations for group size, timing for small group discussions and prompts of debriefing. Templates/worksheets are suggested as well. Sample applications to NPDL are also provided.

1. Carousel brainstorming protocol

Purpose

This protocol may be used for several purposes:

- reviewing of a particular content area
- assessing prior knowledge to introduce new content
- scaffolding of new information
- brainstorming solutions to challenges

As a cooperative group protocol, it encourages both dialogue and problem solving.

Resources

Chart paper labelled with topics
Coloured markers

Groupings

Small groups of 4-6

Large group up to 30-50 * see note regarding larger groups

Strategy

Time minutes	Process

5	**Preparation prior to use**
	Decide on the purpose, topic and 5-6 subtopics.
	Label and number charts with each of the subtopics using a different coloured marker for each chart.
	Post around the room providing space for 4-6 participants to cluster.
	Tape a different coloured marker to each chart so that the facilitator may check with the group if there is a question about their brainstormed list.
	Examples of topics:
	    1. Describe the deep learning you would observe in each of the 6 Global competencies. (Charts 1-6 labelled with one of the competencies)
	    2. Strategies for building capacity
	        Chart 1- Forming professional learning communities,
	        Chart 2-Using student work,
	        Chart 3-Networks,
	        Chart 4-Finding time,
	        Chart 5-Knowledge of change process and
	        Chart 6-Innovative uses of technology

1. Carousel brainstorming protocol (continued)

Strategy

Time minutes	Process
5	Introduce the topic and purpose of the carousel brainstorm. Form groups of 4-6 and assign each to group to a subtopic. Remind the group that they will be brainstorming-spontaneous quick responses to a question, statement or problem. Judgment is deferred.
35	Direct each group to the matching chart-i.e. group 1 goes to chart 1. Assign one group member to be the recorder. Ask participants to respond to the chart question, statement or problem After 4 minutes the participants rotate to the right-i.e. group 1 goes to chart 2 etc. with, the last group rotating to chart 1. Remind them to use the same coloured marker to respond to the next question. Groups should read content on the new chart, then extend or add new ideas.
5	When all the charts have been completed, ask each group to return to its' original chart. *See Gallery walk protocol for an alternative process for summarizing.*
5	At the original chart, group members review the completed brainstorming list and select and circle 2 or 3 key ideas.
10	Select a presenter for each group to share with the larger group the 2 or 3 key ideas.

Debriefing (5-7 minutes)
Following the sharing from each group, discuss the key ideas and possible strategies for implementation.
Think about how the process could be used with faculty or with students.

Note:
For larger groups, ensure that there is space for posting more than 6 charts.
It may not be necessary to have 12 different sub headings but enough so that each small group of 5 or 6 has a chart.
An option is to repeat charts.
Label chart 7 with the same title as chart 1, chart 8-chart 2, chart 9-chart 3 etc..
Similar charts may be combined prior to presenting to the large group.

2. Concept formation protocol

Purpose

This protocol builds on prior knowledge and helps a group to form concepts related to the topic.

It engages individuals in reflective thinking and the small group in deep discussion as they organize the concepts into categories.

Resources

2 x 3 sticky notes-at least 5 per participant

Chart paper

Markers

Grouping

Any size with small groups of 4-6

Strategy

Time minutes	Process
5	Organize the participants into groups of 4-6. Provide each participant with 5-6 sticky notes. Introduce the topic. **For example:** What does deep learning mean to you?
20-25	Ask participants individually to place one idea on one sticky note. Continue until 5 sticky notes are completed. Place all sticky notes on a piece of chart paper. Review all the sticky notes. As a group, cluster similar concepts and then label each. Ask for one member to present the concepts to the large group.

Debriefing 5-7 minutes

Review each group's chart and the resulting concepts.
Look for similarities and differences.
Discuss how the concepts might be helpful in organizing for deep learning.

3. Consulting line protocol

Purpose

This structure provides an opportunity for focussed sharing. It engages participates individually in reflection and then in dialogue with colleagues. The purpose may be to solve a problem, to obtain input, review concepts, brainstorm, or develop a plan of action.

Resources

Room set up with chairs set up
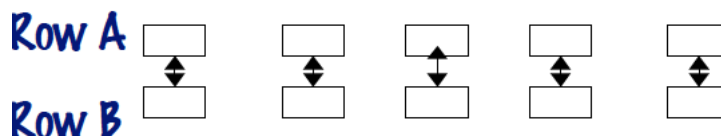
Group size

Any group size providing there is space for chairs. If group is large, you may consider a "stand up" version of the consulting line. called "Slide the Line"

Strategy

Time minutes	Process
2	Introduce the consulting line protocol to the group as an opportunity to gain new insights and actions.
5	Ask individuals to record a challenge they are facing related to the implementation of New Pedagogies.
4	Arrange participants in two rows as in the diagram above. Ensure that the chairs are close enough for conversation.
4	Ask participants in Row A to share their challenge. Partners in Row B are the "consultants" providing suggestions to assist with their partner's particular challenge. Row A participants record the ideas.
2-3	Call time after three minutes. Ask the first person in Row A to move to the last chair of the row-similar to musical chairs. All others in row A move one place to the right. Row B does not move. Row B does not change places.
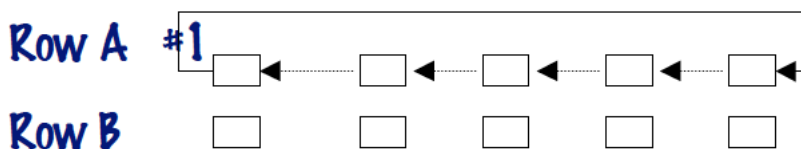
| 3 | Repeat the above process with a new partner in Row B. |

3. Consulting line protocol (continued)

Time minutes	Process
2	Change seats again-only Row A moving.
3	Participants in Row B share their challenge and seek ideas from the "consultant" partner opposite them in Row A.
1	Call time after 3 minutes of sharing.
2	Change seats again-only Row A moving and repeat the sharing with a new consultant.

Debriefing 5-7 minutes

Focus on the process vs. the content. Why is it powerful?
How could it be used with faculty? With students?

4. Four corner placemat protocol

Purpose

The four corner name placemat protocol has several purposes. It may be used as an organizer for a community builder or for summarizing content knowledge, for reviewing key concepts, issues or ideas. It promotes individual reflection as well as team dialogue.

Resources

Template/Worksheet for each participant

Group size

Groups of four-may wish to assign participants to groups such as their school/district team or have participants form a new group with representatives from other school/district teams.

Strategy

Time minutes	Process
4	Provide the prompts which may be questions or statements and are focussed on a particular topic.

Example for a mixed group of four i.e. from different schools/districts:
Creativity
> Corner 1: Describe a strategy to promote creativity.
> Corner 2: Do you integrate technology and if so, how? If not, why not?
> Corner 3: What are challenges do you face when encouraging creativity?
> Corner 4: How do you assess creativity?

Example for a school/district based group:
Deep learning
> Corner 1. How does our school currently encourage pedagogy for deep learning?
> Corner 2. What else might we do to deepen learning for all students?
> Corner 3. Describe a roadblock to the above goal.
> Corner 4. Describe one capacity building strategy used to overcome the roadblock?

5-7	Ask participants complete each of the four corners independently.
3-5	As a group of four, share responses to each of the corners. Look for similarities and differences.

4. Four corner placemat protocol (continued)

Debriefing (3-5 minutes)
Seek responses for one or two of the corners. If challenges were discussed, focus on solutions.

Sample Placemat

Describe a strategy for engaging students in problem solving that promotes deep learning.	How do you accelerate deep problem solving with technology?
What challenges do you face when designing deep learning?	How do you assess the impact on student learning?

5. Gallery walk protocol

Purpose

The gallery walk is an effective strategy for participants to review and understand the work of their colleagues. It provides an opportunity for participants to learn from each other and builds accountability for groups to present work completed. It may be used to check the brainstorming of groups for the carousel brainstorming protocol.

Resources

Small sticky dots (optional)

Chart paper

Markers

Group size

Any group size

Strategy

Time minutes	Process
5-10	Ask teams to record on chart paper a summary of their discussion, work or planning. Teams may use words, graphics, photos to share their summary.
5	Post the charts throughout the room to form a " gallery" of each group's work.
10-20 depending on the number of charts.	Invite participants to individually view all of the charts. You may wish to provide a recording template/worksheet for noting applicable ideas for their school/district. **Optional**: Ask participants to place a dot beside an idea they like. This provides a visual summary of ideas that the participants found helpful.
10-15	Invite participants to return to their school/district or table group to share good ideas. Discuss how the new ideas could be incorporated into their work.

Debriefing (3-5 minutes)

Probe for the ideas that participants found helpful. Have a few groups share their learnings and how they will incorporate them into their work.

6. Give One Get One protocol

Purpose

This protocol focuses on a discussion amongst colleagues to stimulate thinking about prior knowledge of particular content or topic. It allows the facilitator to assess prior knowledge and to review content while participants have an opportunity to consider their own knowledge and to rehearse a response prior to conversation with colleagues.

Through the sharing of ideas, it deepens thinking and stores new ideas in long term memory.

Resources

Template/Worksheet for each participant

Group size

Any group size

Strategy

Time minutes	Process
2	Introduce the topic. You may want to pose a stimulating question or use a slide to remind participants of the content.
5	Ask participants to consider their knowledge of the content. They may use their notes or other sources to review the topic.
4	Ask participants to record on the worksheet or on their device, two key learnings that they want to share with others.
3	Invite participants to stand and find a partner. Each partner shares one of their two key learnings, explaining it to the colleague. The colleague records the idea on line three and then shares their idea.
5-7	Ask participants to continue with new partners until they have 8 new key learnings on the worksheet.
2	Ask participants to return to their table grouping and review the 10 key learnings.

Debriefing (3-5 minutes)

Share several key learnings from the group. Ask for participants to share ones that were new.
Ask how the process helped with recalling information and then understanding it more deeply.

6. Give One Get One Template/Worksheet

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

7. Go to the wall protocol

Purpose

Go to the wall is effective protocol for learning a variety of content from a video or article. it provides for discussion and movement. Each team is accountable for ensuring that all team members know all of the material.

Resources

Two or three short articles focusing on a particular content e.g. assessment, capacity building, deep learning pedagogy.

Chart paper

Markers

Group size

5-6

Strategy

Time minutes	Process
5	Select three short readings on a particular topic. Form teams of 5-6 participants. Organize a cluster of three sets of teams. Assign each team a different reading.
10-15	Ask participants to read the article. You may want to use the Jigsaw (protocol 10) or a Say something(protocol 14).
15-20	Have teams decide on the key ideas of the article. On chart paper, summarize the article using both graphics and/or words. Label the chart with the article title. Be prepared to share with the larger group.
15-20	Invite one member of each cluster to post their chart. Ask all team members to "Go to the Wall". Each team then presents the content of their article to the cluster.

Debriefing (10 minutes)

How might you incorporate the new content into your work at the school/district? Invite teams to share perspectives.

8. Graffiti protocol

Purpose

This protocol provides a structure that engages all group members as individuals to brainstorm ideas, insights, responses to a question. It can be used to activate learning for a new concept or may be used to review the concept. This protocol ensures that group members has a voice and is accountable.

Resources

Chart paper
Markers

Group size

3-4 participants

Strategy

Time minutes	Process
2-5	Introduce a topic for discussion. For example: Strategies for accelerating learning through technology Alternate assessment processes Ways to engage learners
1-2	Invite individuals to think about the topic and their possible responses.
5	Provide each group member with a marker. Ask participants to begin recording their thinking anywhere on the chart paper at the same time.
5-7	Call time after 4 minutes. Ask each group to review the content of the graffiti board and circle the three most critical ideas to share with colleagues.

Debriefing (5 minutes)

Invite each group to share the three most important ideas. Discuss similarities and differences amongst the group and what was learned through the process.

9. Jigsaw protocol

Purpose

Using this protocol, each participant becomes an expert on a portion of the text or video. It is the individual's responsibility to teach back the content of the portion and ensure that all group members understand the key ideas. As a cooperative group structure, jigsaw encourages deep learning and offers an opportunity for teaching back to deepen understanding and retention.

Resources

Video/text
Template/worksheet

Group size

2-4 participants

Strategy

Time minutes	Process
5	Form groups of four. Assign a number to each group member 1-4. Provide the viewing or reading material. Assign each person a portion to view or read.
7-10	Read/view material independently and record key ideas on template/worksheet.
10-20	Teach back the content beginning with person 1 and rotate through the remaining numbers. Record the key ideas from colleagues.
10	Optional: Summarize on chart paper the key ideas.

Debriefing (3-5 minutes)

Discuss with the large group the key ideas.

9. Jigsaw protocol worksheet continued

1.	Read pages 1 & 2 Notes
2.	Read pages 3 & 4 Notes
3.	Read pages 5 & 6 Notes
4.	Read pages 7 & 8 Notes

10. One stays the others stray protocol

Purpose

This protocol is best for district/school teams to share with others. It encourages accountability, reflective thinking, identification of successes and challenges, expression of opinions. It allows for teams to build new ideas introduced and to deepen their work as a team.

Resources

Template/worksheet

Group size

District/School teams

Strategy

Time minutes	Process

20	Ask district/school teams to summarize on chart paper or on a device goals, actions, challenges and accomplishments related to one of the NPDL strands.
	    Pedagogical partnerships
	    Learning environments
	    Leveraging digital

3	Ask teams to identify a spokesperson for their school team who will "stay" at the table to share the summary.
7-10 per round 3 rounds	Provide teams with a list of all the districts/schools and organize their team members individually to "stray" to other teams to learn from them. Each team member should visit three (dependent on the size of the group) different schools and record information on the template/worksheet. Call time after 7-10 minutes and have team members move to another school team. Repeat the process 2 or 3 times depending on the size of the group.
20	Return to school team and discuss new learning and possible modifications and improvements.

Debrief 3-5 minutes

With the large group share innovative ideas learned in the process. Discuss the power of this Protocol and how it could be shared with teachers at school professional learning activities.

10. One stays, others stray protocol template/worksheet

School	Great ideas!
1.	
2.	
3.	

Key learnings:

Ideas we could incorporate:

11. Quote walkabout protocol

Purpose

The quote walkabout protocol is an effective tool for introducing a new topic and allows for dialogue amongst colleagues to clarify and deepen understanding.

Resources

Template/worksheet

Group size

Any size

Strategy

Time minutes	Process
20-30	Prior to the session, select a series of 5-7 quotes from new content found in an article, blog, book etc. and record on the template/worksheet.
7	Ask participants to review the quotes and select two that resonate. Using a quick write participants explain your rationale for quotes selected. Participants should be prepared to share with colleagues.
10	Ask individuals to share the two quotes with a colleague explaining the rationale for selection. Repeat the process with a new partner.

Debrief 3-5 minutes

Ask partners to share quotes they had in common and discuss rationales.
Summarize key learning from the quote walkabout.

12. Read-retell-relate-reflect protocol

Purpose
This literacy protocol encourages critical thinking and reflection.

Resources
Text/video

Template/worksheet

Group size
3-5 participants

Strategy

Time minutes	Process
10	Use this protocol as a jigsaw or independent activity. Assign reading/video and provide template/worksheet. Review prompt. See following chart.
10-20	Read/view material independently and record key ideas on template/worksheet.
10-20	If using the jigsaw protocol, teach back the content beginning with person 1 and complete rotation. Record the key ideas from colleagues.

Retell	Summarize reading. Outline major ideas. Describe most significant and relevant concepts. What parts were confusing or unclear?
Relate	Make connections between the text and own experiences-personal experiences, feeling, other texts-e.g. books, music, film, websites or the world at large-current events.
Reflect	Why is this text important to you? Your judgment about the text/author's conclusions. Your opinions about the style of writing. Your judgment about the credibility, accuracy. Relevant questions. Anything that is confusing How might you apply what you have learned?

Debriefing
Check for accuracy of content and then probe reflections.

12. Read-retell-relate-reflect protocol template/worksheet (continued)

Person	Key Ideas from Reading	Relate to the key ideas	Reflections on the ideas
A			
B			
C			
D			

13. Say something protocol

Purpose
Say something is a paired reading protocol designed to increase individual and shared understanding of concepts and fosters deep conversation between the collaborative partners.

Resources
Short Article

Group size
Pairs

Strategy

Time minutes	Process
2	Form pairs and provide s short article.
2	As a pairs, decide on a mid-point break.
3-5	Read the first part of the article independently, highlighting key ideas.
5	Stop at the mid-point and use the reflecting prompts to focus the dialogue: Reflecting prompts Summarize your thinking about the article. Identify key points. Make a connection to own work. Sharing thinking about a new idea. Raise a questions about the reading.
10	Repeat the process reflecting at the conclusion of the article.

Debrief 2-3 minutes
Share any questions and/or the connections made. Seek response to the questions. Discuss the power of this protocol.

14. Say and switch protocol

Purpose

This protocol has partners respond to a question and is particularly valuable as a review of content, an opportunity to rehearse responses or a check for understanding.

Resources

Content for reading or viewing

Group size

Pairs

Strategy

Time minutes	Process
2	Form pairs and label A and B.
3	Pose a question related to content. For example: Describe the 6 Cs and how you are incorporating them in lesson design.
2-3	Begin with person A responding to the prompt. Person B listens.
2-3	Call time and switch partners. Person B must continue the train of thought before adding new information. Repeat the process switching twice.

Debrief 2-3 minutes

Check for understanding by seeking responses from various pairs.

15. Sharing protocols-Think-pair-share & Turn and talk

Purpose

These are simple yet powerful cooperative group structures which promote discussion with a partner.

Both are appropriate for checking of understanding, applying new concepts, practicing new content, or deepening thinking.

When using the Think-pair-share protocol it is important to provide time for individual thinking. When participants have this opportunity to collect their thoughts and reflect, they generate 50% more responses.

Turn and talk is used to recap and or discuss new content or skill introduced and helps to store the information in long term memory.

Resources

Group size

Pairs

Strategy-Think- pair-share

Time minutes	Process
4	Form pairs. Pose a question or topic for independent reflection. Allow a minute or two for individual reflection prior to discussing.
2-4	As a pair, discuss responses within a specific time period.

Strategy-Turn and talk

Time minutes	Process
3-5	When introducing new content, ask participants to turn to their nearest colleague and review the content. You may want to deepen understanding by applying to their current situation.

Debrief 1-2minutes

It is not always necessary to debrief in the Think-pair-share or the Turn and talk protocols but it is valuable to check accuracy of understanding.

16. Three-two-one protocol

Purpose

The 3-2-1 protocol engages participants in reflecting on their own practices as well as reviewing content. It provides an opportunity for discussing choices and promotes deeper thinking.

Resources

Worksheet/Template

Group Size

Any group size

Strategy

Time minutes	Process

4	Provide three prompts based on the purpose.
	
	For example:
	Prompt
	    3 new assessment strategies I find effective
	    2 purposes for assessment data
	    1 challenge I face when assessing student learning
	Prompt
	    3 digital resources I find effective
	    2 impacts on student learning
	    1 goal for expanding my use of technology
	Prompt
	    3 main ideas from a reading
	    2 connections to a previous learning
	    1 strategy for implementation

5-7	Ask participants to complete independently the template/worksheet.
3-5	Invite participants to meet with a colleague from another group. **Round one** Share the response to the "3" prompt. **Round two** Repeat, changing partners each time to respond to prompts "2". **Round three** Repeat, changing partners each time to respond to prompts "1".

Debriefing (3-5 minutes)

The facilitator may want to stop after each of the prompts and seek responses. Ensure that responses are correct in content. When the prompts are more personal it is unnecessary to debrief

.

3	Strategies I use to promote deep learning
2	Ways I engage leaners
1	Challenge I face when implementing deep learning

17. Three step interview protocol

Purpose

In this cooperative group protocol, the group interviews one another on a particular topic using specific guiding questions. It can be used to create an anticipatory set for new content, share opinions or experiences, summarize a lesson or instructional strategy, review an study assignment or explore concepts in depth.
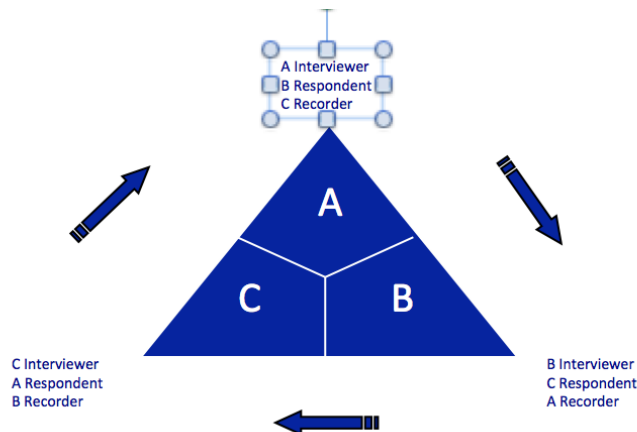
Resources

Template/worksheet

Group size

Trios

Strategy

Time minutes	Process
2	Form trios and letter off A, B, and C.
5	Provide the interview questions and review roles as an interviewer, responder and recorder.
5	Assign roles for the first round. See the chart below.
10	Continue until each participant has had each role.

A Interviewer
B Respondent
C Recorder

C Interviewer
A Respondent
B Recorder

B Interviewer
C Respondent
A Recorder

Debrief 3-5

Share the power of this protocol. How did it help you understand content?
How did you in each of the roles?

Question	Person A	Person B	Person C
How do the learning progressions help you assess student learning?			
How do they assist you in designing learning?			
What challenges have you faced with the progressions?			

18. Through the looking glass protocol

Purpose

As a simulation for reviewing classroom practices, this protocol helps to develop a common language and increases the precision in pedagogy.

Resources

Template/worksheet

Videos

Group size

Trios

Strategy

Time minutes	Process

2	Form trios and provide a purpose for viewing.
	For example:
	Look for exemplars of the three strands for deep learning:
	    pedagogical partnerships
	    learning environments
	    leveraging digital

7-15	View videos and record observations.
20	Pose questions for deeper understanding such as: What pedagogical strategies were most effective? Why? How did the teacher access prior learning? What experiences did students have prior to this lesson that prepared them for learning? How could we increase precision in pedagogy in the district/school? What steps should we start with to increase precision?

Debrief 3-5 minutes

Focus on the action questions. Ask trios to share specific steps for increased precision.

Strands for new pedagogy	Through the looking glass evidence
Pedagogical partnerships that engage students in co-designing relevant authentic learning	
Learning environments that foster risk taking, build on students' strengths and interests, and develop collaborative learning cultures.	
Leveraging digital to accelerate and deepen learning	

19. Video Viewing Protocol

Purpose

Viewing real-life situations provides greater understanding of a concept or new pedagogical practice. Videos should be carefully selected and should be 2 to 5 minutes in length. Longer videos should be paused or broken into smaller segments. Providing a purpose for viewing is essential. Video viewing may be done in conjunction with the either the Jigsaw or Through the looking glass protocols.

Resources

Template/worksheet

Videos

Group size

2-4

Strategy

Time minutes	Process
2	**Before viewing** Form small groups 2-4 and and provide a purpose for viewing. Describe the general concept of the clip. Ask participants to record what they might anticipate when they view the video.
7-15	**During viewing** Observations are recorded on the template/worksheet. Record key messages highlighted in the clip.
10	**Following viewing** Select one key message that resonates with you. Record your thinking about the concept. Sharing may be in pairs or large group.

Debrief 3-5 minutes

Seek observations about the key messages from the large group. Ask questions related application of new ideas.

Seek evidence of what learning may have taken place prior to the video.

19. Video viewing protocol worksheet (continued)

Before viewing	What do you anticipate in the clip?
During viewing	Key Messages 1. 2. 3. 4. 5.
After viewing	Select a key message that resonates for you.

Looks like	Sounds like	Feels like	Next steps

20. What? So what? Now what? protocol

Purpose

This protocol is used to summarize content, think critically, and to develop potential action steps.

Resources

Template/worksheet

Reading or video

Group size

4

Strategy

Time minutes	Process
7-10	Form small groups 3 or 4 and assign reading or viewing. The jigsaw protocol may be used if the reading is longer.
15-20	Discuss each of the questions provided on the template/worksheet. Ask one participant to record the key ideas of the discussion and as a group seek consensus for each response.

Debrief 3-5 minutes

Focus the large group discussion on the "Now What?" section. What do you currently do? What steps would you take to implement this new idea? What are some of the challenges you may face?

What? Synthesis of key ideas	
So What? What are the implications of the new ideas?	
Now what? What should we do differently as a result of this new knowledge/skill?	