Linking Systems of Care for Children and Youth Project

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Curriculum Development: A Guide to Creating an Evidence-Based Curriculum for the Public Sector

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Introduction

This Curriculum Development Guide provides a structure in which to create curriculum modules based on a subject, policy, or evidence-based practice to be taught and disseminated to a target audience for training, implementation, or policy adoption. This structure helps content experts create participant-oriented learning objectives, instructional strategies, and assessments that can be delivered by multiple trainers in a consistent and effective manner.

The Curriculum Development Guide is interactive and designed to lead a curriculum developer from the initial concept to a final product. If the curriculum is being developed via a collaborative effort (e.g., a writing team), the NCJFCJ recommends working through the first section – Overarching Curriculum Outline – together before starting on the actual curriculum content. This critical first step will help the team establish the broad purpose, goals, number/focus of modules, timing, and logistics for the curriculum before content is developed. In the end, working through this first step ensures that the writing team aligns its content with the overarching goals and purpose of the curriculum to create a seamless and cohesive final product.

Overarching Curriculum Outline

To begin, it is important to think about the purpose, goals, objectives, broad modules, and logistical considerations before developing specific content/learning objectives for each module.

Purpose

Derive the purpose of the curriculum by answering the following questions:

What is the purpose of the curriculum?	
Who is the audience?	
What impact do you hope the curriculum will have if delivered?	
Because of participating in the training what do you hope the participants will change or do?	

Curriculum Goal

Using your answers from the above section, craft an overarching goal of the curriculum – e.g., policy adoption, implementation, increased knowledge/skill-based, and/or improved practice. In other words, what will change because of the training?

Curriculum Goal:

Learning Objectives

Develop three (or more, if needed) participant-centered learning objectives. Learning objectives should impart the skills and knowledge participants will gain by attending the module/session. When developing the module, consider what the audience is thinking/doing now and then think about what the audience should think/do after participating in the module. Use the From-To Think-Do[1] matrix below to help develop effective learning objectives:

	From	To
Think	What are they thinking now?	What should they think after the module?
Do	What are they doing – or not doing – now?	What should they start doing – or stop doing – after the module?

Learning objectives should move from theory to practice, using Bloom's Taxonomy – remember, understand, apply, analyze, evaluate, and create (table shown on next page).

Verbs for Bloom's Taxonomy

Remember	Understand	Apply	Analyze	Evaluate	Create
Arrange	Classify	Calculate	Combine	Appraise	Arrange
Define	Describe	Construct	Figure	Argue	Assemble
Locate	Identify	Demonstrate	Find	Assess	Compose
Recall	Indicate	Estimate	Sketch	Defend	Create
Recite	Organize	Illustrate	Solve	Estimate	Design

Remember	Understand	Apply	Analyze	Evaluate	Create
Describe	Interpret	Interpret	Predict	Judge	Devise
Repeat	Illustrate	Appraise	Change	Predict	Formulate
Identify	Reorganize	Contrast	Survey	Qualify	Invent
Select	Translate	Criticize	Compare	Rate	Manage
Quote	Paraphrase	Diagnose	Diagram	Support	Modify
Label	Summarize	Identify	Examine	Critique	Organize
Copy	Transform	Classify	Test	Recommend	Plan
List	Discuss		Modify		Prepare
Name	Explain				Produce
State	Defend				Propose
	Compare				Set Up
	Report				Verify
	Review				Construct
	Rewrite				Develop

Curriculum Objectives

Objective One	
Objective Two	
Objective Three	

Curriculum Modules, Timing, and Logistical Considerations

Curriculum modules are the broad categories, topics, information, research, instruction, and/or policy that the curriculum will be based on. This could be based on principles or guidelines; evidence-based practice models; implementation steps; or policy adoption. When designing each module, consider that information should be delivered in 1.5-hour blocks of time.

Number of sessions/modules	This generally aligns with the number of guidelines/ principles detailed in the broad categories of the curriculum itself.
Length of sessions/modules	Typically, 1.5 hours in length with three distinct parts – 1) introduction, 2) technology transfer, and 3) wrap-up.
Number of days needed	Consider the desired length of each module, needed time for breaks and lunch, as well as start/end times to determine the number of days.

Number of trainings to be delivered	Consider any funding or logistical limitation, as well as training needs.
Stand Alone Modules	Modules may be developed in a way that makes sense together as a full curriculum or as single stand-alone modules on a specific topic. It is important to consider this in the development stages because instructional strategies may change depending on how the module is delivered.

Recommended Practice

The recommend practice covered in this section provides guidance related to *how* to develop content, instructional strategies, activities, and learning assessments that will ultimately add to a positive learning environment that attempts to engage every participant, as well as increase knowledge and technology transfer.

Take a moment here to think about other ways you may have begun developing curriculum or training materials – perhaps your initial first step was to open a PowerPoint and begin creating a slide to deliver information. This section attempts to debunk that process and suggests that the process has to be more structured and focused to achieve good learning outcomes.

So, before creating a slide deck, visual aids, activities, or handouts, outline the logic and evidence needed to effectively impart the information in the module. The module outline should: 1) align evidence and information with the learning objectives, and 2) serve as initial steps before dividing information into three distinct sections:

- **Introduction** - used to set the stage, share values, or address prior learning; it is generally 5 – 30 minutes in length.
- **Technology Transfer** - used to deliver important evidence and information; it is generally 30 – 60 minutes in length.
- **Wrap-Up** - used as a call to action or a check for understanding; it is generally 15 – 30 minutes in length.

  Note: there are more instructions and guidance on these three sections later in the Curriculum Guide; however, introducing them here serves as a primer for curriculum developers when constructing the module outline.

Compiling Information and Evidence

As a curriculum writer, it is important to consider many things when compiling the information and evidence that will be delivered in a presentation, module, or larger curriculum. Writers should refer back to the learning objectives to ensure that erroneous information does not accidently get included. The following bulleted list offers some specific guidance:

- Incorporate specific data points, which will help to "follow the Reality Principle [by] including evidence that is concrete and particular, and not just conceptual and general" (e.g., stories or anecdotes, for example, in addition to generally stating "60% of people are positively affected by this policy…" share an actual story about a real person who was positively affected. [2]
- Use different types of evidence/arguments (e.g., qualitative, quantitative, causal arguments, etc.) to support the information being imparted; this includes incorporating the counter point.[3]
- Think about what is new and innovative about the information. [4] It is likely that a portion of your audience has baseline information, so it is important to think of the range of knowledge.
- Remember that the curriculum being developed will likely be taught by a different professional from the field (i.e., someone other than you). With that in mind, include complete references that can be used for further research by faculty and provide extensive and detailed faculty notes.

Also, consider what **NOT** to include, meaning try to avoid:

- Irrelevant evidence to the argument or information because it cannot be assumed that the audience will ignore it, which then may lead to a "[reduction of] the perceived value of the relevant information being communicated." [5]Aligning the information and evidence to the learning objectives is the key to avoiding this pitfall.
- Weak but relevant evidence, especially for well-informed audiences; it can weaken the overall persuasive effect of the argument." [6]
- Guilt inducing evidence, because "research suggests…guilt appeals tend to weaken persuasion."[7]

Using Instructional Strategies

As the curriculum developer, think about how audiences will be engaged throughout the module. Research suggests that faculty can expect between 10 and 20 minutes of the audience's attention. [8] Therefore, it is important to use varied instructional strategies to re-engage the group's attention. **A combination of at least two instructional strategies** should be used during each module. The table below provides a brief explanation of several instructional strategies; however, it is not an exhaustive list. As you are reading the table below, begin thinking how to use these approaches with the

content being delivered; specifically, begin thinking about how instructional strategies will be used in three distinct module segments – 1) Introduction; 2) Technology Transfer; and 3) Wrap-Up.

Instructional Strategies: More information on each strategy can be found in the Appendix, which includes:

1. A brief explanation;
2. Audience size and learning environment considerations (i.e., face-to-face, online, conference, meeting, etc.), skills needed; and
3. Additional resources.

Icebreaker (page 32)	Icebreakers are a great way to set the stage, share values, or simply get to know each other better. These are all things that lend themselves to a positive learning environment. Icebreakers are likely needed in the first module of any curriculum.
Lecture (page 33)	Lecture is a great way to deliver information regarding key concepts, definitions, and recommend practice. It is important to keep in mind that you may only have 7 – 10 minutes of attention from your audience, so make sure the strategy is used in combination with other approaches.
Large Group Discussion (page 34-35)	Adding larger group discussion to a lecture is a great way to break up a lecture. When sequencing the module in Step Four, consider creating segments that are in 15-minute segments, which could be broken up by large group discussion.
Small Group Discussion (page 35-36)	Small group discussions are a great way to ensure that all participants have an opportunity to be heard. But, do not just use small groups to discuss topics or concepts – think about how small groups can be used to develop new strategies or practice new concepts, based on the information being delivered.
Idea Generation (page 36-37)	Adding an instructional strategy that focuses on generating ideas with an audience provides an opportunity for participants to connect concepts being delivered to their own experiences.
Concept Map (page 37-38)	Concept mapping is a graphical representation of ideas that allows participants to discover and document links between information. When developing a concept map, the participants themselves are in control of the information.
Gallery Walk (page 38)	It's important to remember that at certain times of the day, participants will be less engaged (e.g., directly after lunch or in the late afternoon, so it may be beneficial to design an instructional strategy around movement – a gallery walk is a good way to get participants moving around.

Icebreaker (page 32)	Icebreakers are a great way to set the stage, share values, or simply get to know each other better. These are all things that lend themselves to a positive learning environment. Icebreakers are likely needed in the first module of any curriculum.
Peer-to-Peer Learning (page 39)	Remember that the participants are likely experts in their own right. They have a deeper understanding of their own work environment, community, and area of practice, which we as curriculum developers or faculty may not be able to fully recognize.
Case Studies (page 40)	Case studies allow you to bring in anecdotal stories that assist with achieving the "reality principle" discussed on page 8.
Role Play (page 41-42)	Role-playing is a type of experiential learning, which takes the case study concept and adds specific "roles" for the participants to perform.
Action Planning (page 42)	Action planning with an audience or group is an excellent way to wrap up a larger curriculum or a module. If your curriculum is geared toward implementation, consider adding the same action planning strategy/activity to the end of each module.

Using Learning Assessments

TIP: Some learning assessments can be a part of your instructional strategies, where the goal is to check for understanding.

It's important to align instructional strategies with learning assessments, which will assist in providing feedback and questions during instruction, which will guide possible adjustments during and after the training is delivered. Learning assessments can also be used to engage audiences or wrap-up modules. Read the descriptions below and begin thinking about one or more that may work with the material being delivered. It is important to use at least one learning assessment option for each module of the curriculum.

Learning Assessments

Open Discussion	Use to gain anecdotal feedback after content has been delivered to determine if participants can make connections to current practice. This allows faculty to understand if participants have inferred the meaning intended. It is likely that faculty will only receive minimal feedback. Generally intended for one or two quick questions related to content.

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Polling System (online or responder system)	Use to capture objective feedback on key concepts after a specific segment or group of concepts has been delivered. It is generally used before participants can move on to the next concept or module. Faculty are more likely to get feedback from the majority of participants in the room when using this assessment.
Pre/Post Test	A pre/post is more formal; however, if kept brief (3-4 questions) it can assist with understanding short-term learning by participants, as well as help faculty understand the level of knowledge before and after each module.
Role Play	Incorporating role-play into a module can help faculty determine if concepts can be acted out in a real-world simulation. This also helps audience members practice concepts and ask clarifying questions.

Module(s) Sequence and Development

This section helps put the learning objectives, evidence/information, instructional strategies, and learning assessments all together in a coherent and linear way. Dividing the module into three distinct segments ensures that there is a cohesive beginning, middle, and end or more technically referred to:

1. Introduction;
2. Technology Transfer; and
3. Wrap-Up.

As a curriculum developer, you may find yourself developing parts of the introduction, technology transfer, and wrap-up segments in order OR out of order OR all at the same time. This is okay as long as the segments align with the learning objectives and follow recommended practice. It is also important to include ways for varied faculty to personalize training delivery through anecdotes that help illustrate the logic and evidence within the module.

Introduction (generally 5 – 30 minutes)

Each module should have an introduction; however, the introduction length will vary, depending on whether or not you are developing the first, middle, or last modules. In the introduction, consider ways to address prior knowledge, set the stage, or share values related to the learning objectives. If this is the first module of the curriculum, an

icebreaker type activity will work very well to set the stage or share values. If this is not the first module, a larger group discussion to gauge/discuss prior knowledge may work well. In some cases, you might choose to begin the module with a lecture because information may need to be delivered before any other instructional strategy will work. Do not be afraid to add a learning assessment to the introduction because it is a great way to address prior knowledge.

Technology Transfer (generally 30 – 60 minutes)

Depending how much time is allotted to the introduction and wrap-up; technology transfer may end up being the longest part of the module. This is likely where faculty use lecture as an instructional strategy to deliver important evidence and information:

- definitions;
- research findings;
- recommended practice;
- personal anecdotes; and
- practical examples of research to practice.

Since the typical attention span of the audience is between 10 and 20 minutes, it is important to divide this section up using a combination of instructional strategies that engage the audience and increase technology transfer. For example, adding role play as an activity after 10-15 minutes of lecture will allow the audience to practice. Or, adding a peer-to-peer learning activity to share strategies that align with the content being delivered.

Wrap-Up (generally 15-20 minutes)

Think of this as your call-to-action…what is it that you want the audience to remember, do, or change, because of the module? Consider using one of the learning assessments here to wrap up and check for understanding or a large group discussion about possible next steps. It could be that each module ends with the same wrap-up techniques. This is especially helpful when training stakeholder groups or teams to implement practice through a strategic plan or action plan after the curriculum has been delivered.

Using Slides for Visual Aids

First, do not begin creating slide content until the purpose, goal, learning objectives, and outline for the module, presentation, or larger curriculum module have been fully fleshed out. Slide content should be used as visual aides to help faculty emphasize concepts. Refer to the Do’s and Don’ts below for more specific guidance.

Slide Deck Do's & Don'ts

Do	Don't
Do include the learning objectives on the slides.	Don't gloss over the learning objectives; this is your opportunity to provide the audience prompts re: expectations of learning.
Do consider a slide deck as only one part of your module; it should support what you say but not include everything you say.	Don't include every piece of information on the topic within the slides; slides should not be an encyclopedia of information.
Do consider using a combination of text-based slides and visual-based slides to break up the monotony of written information.	Don't fall into the trap of 60 slides per 60 minutes or the 10/20/30 rule (i.e., there is not an exact recommendation, rather use as many slides as needed to share RELEVANT information).
Do use font that is accessible - minimum font size should be about 24 points; headers and sub-headers, should be between 40-60 points.	Don't make font too small to fit more information on a slide; instead, simply add another slide.
Do use colors that are easily seen from all sections of the room audiences are in and consider using texture in your graphs and charts to indicate different variables, instead of just color.	Don't use the colors red, orange, and green as they can be especially difficult to see.
Do create graphs and charts that are easy to quickly read and understand by eliminating the information on the graph that is not needed to impart your message.	Don't add extra information known as "chart junk" that is not needed to further your message (e.g., additional lines, percentages, and graphics).
Do source your information on the lower left of the slide.	Don't make audiences figure out the direction or flow of information on the slides; audiences will generally read from left to right.
Do annotate graphics with brief call-out boxes to ensure important concepts are prominently displayed.	Don't overload the audience by using too many graphs.

Writing Speaker Notes

At this point, begin converting the outline/information into speaker notes. It may be easiest to do this directly in the presentation software. For example, use the notes section in PPT to draft speaker notes / instructions that directly correspond with the slide content created. Use the following outline for each slide and remember that speaker notes should be written as if someone other than yourself will deliver the content.

1. **What you should know** - this includes information that the presenter needs to fully understand the context of the slide content, instructional strategies used, and any background information that is important to know.

2. **What you should say** - this is an actual script for the presenter to use. It includes: 1) key concepts, 2) activity instructions, if needed, and 3) instructions for personalizing the content.

3. **How you should transition to the next slide** - this is a script, as well. If warranted, include: 1) reminders from previous slides, 2) transition sentences that connect key concepts, and 3) information regarding what to expect in upcoming slides. This content depends on how the content and slides flow together, so it may be that the only transition is “let’s move on to the next concept.”

Appendices

Instructional Strategies – The Why

It is so important to deliberately incorporate instructional strategies to engage learners; however, it is equally important to choose and develop an instructional strategy that works well with the learning environment and audience, meaning not every instructional strategy works in every situation.

Selecting the right strategy is dependent on the audience size, the learning environment, the skill set of the faculty, the characteristics of the participants, and the desired outcomes of the curriculum/module. These logistical factors can sometimes be overlooked when designing curriculum modules or training agendas, which can lead to using instructional strategies that don’t meet the goals of the module and fail to hold the participants’ interest. Imagine for example, a gathering of 40 people where the introductory activity asks each person to state their name, their occupation, and one thing they hope to learn from the day. This activity simply does not fit with the number of people in the audience and may not generate the interest and momentum needed to have an interactive learning environment. In contrast, it might be better to design an introductory activity that asks the participants to introduce themselves to a few of their peers or to form small groups (e.g., by profession) for smaller, more personal introductions.

It is also important to consider the faculty’s skill-set when selecting instructional strategies. The NCJFCJ recommends keeping instructional strategies simple, with well-developed instructions, since faculty will likely have a wide range of skills and training experience. That being said, it is important to be thoughtful and creative when selecting

and designing instructional strategies that will increase engagement, as well as aid in technology transfer.

Too often curriculum developers and faculty rely on a combination of lecture, large group discussion, small group discussion, and report out. While all of these strategies are effective, it can also cause learning fatigue among participants because the training routine can feel monotonous. At the same time, be thoughtful about the types of learners in the audience and consider instructional strategies with components that appeal to different learning styles. For example, some people like to read and reflect on material before participating in a discussion. For these learners, simply providing material ahead of time allows them to prepare and more fully participate in the training. Finally, it is important to remember the learning objectives and the overall outcomes you are trying to achieve - instructional strategies should complement these outcomes.

Instructional Strategies – The How (highlighted through several common/key strategies)

Each of the following descriptions includes:

1. a brief explanation;
2. audience and learning environment considerations (i.e., face-to-face, online, conference, meeting, etc.), skills needed; and
3. additional resources to further develop creative activities as methods to facilitate instructional strategies. Keep in mind that this is not an exhaustive list of examples; rather, it is merely a starting point in thinking about instructional strategies.

Icebreaker

Icebreakers are a great way to set the stage, share values, or simply get to know each other better. These are all things that lend themselves to a positive learning environment. Yet, icebreakers often have a reputation for being superfluous wastes of time. With those two contrasting ideas in mind, consider the following before selecting/developing an icebreaker:

- The audience, for example:
    - If the audience is largely made up of people who know each other, select an icebreaker that is designed to set the tone for the module or curriculum.
    - If the audience is made up of people who do not know each other, select an icebreaker activity that will help them get to know each other.

- The purpose of the training, for example:

    - If the training is to build a team or coalition, consider an icebreaker that focuses more on the people participating rather than focusing on the content.
    - If the icebreaker is at the beginning of a training session, consider using the icebreaker to gauge prior knowledge among the audience.

- The connections, for example:
    - No matter who is in the audience or the purpose, always debrief the icebreaker and make needed connections to the curriculum's goals and objectives.
    - No matter who is in the audience or the purpose, build in opportunities to refer back to key discussions made during icebreakers.

Audience Considerations	Learning Environment Consideration	Skills Needed
Icebreakers should be used with audiences of all sizes. However, when selecting the icebreaker keep in mind the size of the audience. With groups larger than 20 people, consider creating smaller groups for introductions (e.g., table-based, pairs, trios, etc.).	Icebreakers can be conducted in face-to-face AND online learning environments. When selecting in-person icebreakers be thoughtful about the room's set-up and consider ways to engage all learners. Online icebreakers should make use of the online environment by incorporating poll questions, drawing/writing tools, and the chat box feature.	Faculty and instructors with varied skills levels, even very inexperienced faculty, can conduct an icebreaker. However, be sure to provide sufficient instructions for the icebreaker itself.

Additional Resources:

- Science of People: 8 Easy Icebreakers to Warm-Up Any Meeting That Aren't Awkward
- Culture Amp Blog: 20 icebreaker games for work that are flexible and scalable
- Liberating Structures: Impromptu Networking: Rapidly Share Challenges and Expectations, Build New Connections

Lecture

Lecture is by far the most common instructional strategy. But, lectures can become boring, especially when the audience is made up of professionals who already have a depth and breadth of knowledge about the material. When designing a lecture ask the following questions:

1. What does the audience already likely know about this information; and
2. What new information will the lecture impart to the participants?

There is a temptation when designing a lecture to spend a great deal of time ensuring the audience is on the same page by covering basic information on the topic. For example, when training a child welfare audience on the topic of family engagement, adding information on *why* it is important to engage families is likely not necessary. Instead, a presenter might choose to focus on how to overcome barriers to family engagement.

When designing a lecture for a curriculum, it is important to include faculty notes that provide potential faculty members with information that is not found on the slides. The purpose of the slide deck is to provide supporting material and a cue for visual learners. The speaker should be building on the information provided, rather than reading it directly. Consider also including some real world examples into the lecture and providing faculty with points in which to share their own experiences.

Audience Considerations	Learning Environment Consideration	Skills Needed
Lecture is appropriate for any audience size; although, when working with small workgroups or meetings, it will be important to frame it as a discussion.	Lecture can be effective in any learning environment; however, in an online learning environment, it is especially important to use instructional strategies to engage participants. Consider making lecture segments 7-14 minutes and using the system to engage participants (e.g., polls, chat box discussions, anecdotal comments from selected participants).	The faculty or instructor should be an expert in the subject matter and have an ability to bring additional information and examples to the presentation. In addition, the faculty or instructor should be able to answer difficult questions about the content, as well as interact with participants when comments/examples are shared with the group.

Additional Resources:

- Stanford University Teaching Commons: Lecturing Guidelines

- Carnegie Mellon University: Eberly Center for Teaching Excellence & Educational Innovation: Lectures

Large Group Discussion

Large group discussions are perhaps the easiest type of instructional strategy to use. In its essential form a large group discussion is simply a question posed to the entire audience where anyone is free to answer. Faculty who are comfortable with a lecture format will often use large group discussion as their go-to strategy. A good large group discussion can involve an open-ended question asked of the entire group, or it can involve a variety of activities to generate discussion. Large group discussions are good for asking people to share what they've learned, to generate ideas, or to process information learned in another activity (e.g., pairing a large group discussion and role playing activity).

Regardless of the type of activity selected for a large group discussion, there are a number of elements to include in order for it to be successful:

1. Provide participants with clear instructions and questions. A large group discussion is only as good as the questions posed; therefore, when developing questions for the curriculum be thoughtful. Open-ended questions should elicit a variety of answers and allow the audience to draw on their own knowledge and experience. For example: "What has changed the most in juvenile justice over the last 10 years?" or "What do you find most challenging about engaging stakeholders?" Be sure to incorporate the questions on a slide or in the handouts so that the participants are clear on what they are being asked to respond to.

2. When conducting a large group discussion ensure that all of the audience has an opportunity to respond – this requires a strong facilitator, as well as a structured approach. Otherwise, you may find the same participants engaging repeatedly. The NCJFCJ recommends using *The Surprising Power of Liberating Structures* as a guide when developing the structure around large group discussions.

3. When providing directions for conducting a large group discussion, include key discussion points that should be generated by the group discussion and provide the faculty with directions for how to ensure these key points are made.

Audience Considerations	Learning Environment Consideration	Skills Needed
Large group discussions work best with medium-to-large sized groups to ensure a variety of responses and a thoughtful discussion.	Large group discussions can be used both in person and online. When conducting a large group discussion online, be sure to provide faculty directions for how to respond to answers that may be submitted via the chat box feature rather than aloud. This includes having strong support staff monitor the chat box feature.	Choose faculty or instructors who are skilled in facilitation to lead large group discussions in order to ensure that the key points are highlighted and that each participant has an opportunity to participate.

Additional Resources:

- Carnegie Mellon University: Eberly Center for Teaching Excellence & Educational Innovation – Discussions
- Liberating Structures: Impromptu Networking – Rapidly Share Challenges and Expectations, Build New Connections

Small Group Discussion

Small group discussions are a great way to ensure that all participants have an opportunity to be heard. They can also be used to generate ideas around a series of topics or to let the class teach each other and practice new skills. Simply put, small group discussions are not just for talking! Small group discussions are good for a variety of group activities:

1. Serve as opportunities for groups of participants to critically think about a topic or series of topics with 2-4 other participants;
2. Allow participants to build upon what they already know and develop new ways to approach a concept, policy, or practice through small group work; and
3. Provide ample time for participants to develop or practice with the key concepts being delivered, especially via lecture.

When designing small group discussion activities be sure to consider the purpose of the discussion. There are many different types of small group activities that can generate ideas, distill ideas, process information, or action plan. For example, in Liberating

Structures, the activity 1-2-4-All is designed for participants to reflect on an idea, pair up and exchange ideas, form a quartet to distill their combined ideas into one final idea, and finally to present their final idea to the rest of the group. This is an example of distilling information, rather than generating a large list of ideas.

As you create your small group discussions/activities, ask the following two questions to guide the process:

1. What is the purpose of this activity; and
2. What will the participants know or be able to do at the end of activity?

Knowing the answers to these questions can provide the direction necessary for selecting a small group discussion or activity.

Audience Considerations	Learning Environment Considerations	Skills Needed
Small group discussions or activities work well for audiences or groups of all sizes; however, it is important to develop how any size group will be rearranged into a smaller group. If the audience is small, pairs work well. If the audience is larger, consider asking participants to count off numbers to form groups or use another creative way to form the group (e.g., birthday months).	Small group discussions can be used effectively in person and online (when the online platform supports small group breakouts). If you choose to use small group breakouts online, be sure to work with an expert in the online platform and make sure to conduct a practice session to trouble shoot any challenges that arise.	It is likely that the small groups formed will need a lead or a facilitator to drive the process; this does not mean you need a trained facilitator for each group, though. Simply ask the newly formed groups to choose a person to keep them on track. Allow time for the main faculty or instructor to adequately debrief the small group discussion or activity, which allows the participants to ask for clarification.

Additional Resources:

- Liberating Structures: 1-2-4-All – Engage Everyone Simultaneously in Generating Questions, Ideas, and Suggestions
- Cult of Pedagogy: The Big List of Class Discussion Strategies

Idea Generation

This instructional strategy allows faculty to guide participants while they are "generating an assortment of ideas without criticism or judgment about the quality of those ideas."[9] As an instructional strategy, faculty and instructors can use idea generation to shape discussions, develop a shared vision among participants, create cohesion around a concept, or generate ideas for future projects and interactions. Idea generation allows participants to think creatively about a concept, integrate peer information into their own worldview, generate new concepts because of peer information, and provide participants with valuable information about their peers. This is not simply about generating ideas; it is also about creating consensus among participants.

Audience Considerations	Learning Environment Considerations	Skills Needed
Idea generation can work with audiences of all sizes. The strategy also works well with participants who are different (in contrast to action planning). When using with larger groups, faculty or instructors should consider creating smaller breakout groups to ensure that participants have an equal opportunity to participate.	Idea generation can happen in several different learning environments – 1) online, by using the chat box feature or white board to list ideas; 2) in large groups with a flip chart to list ideas; or 3) in a small group with a single person listing ideas (to name a few).	Choose faculty or instructors who are skilled in facilitation and who are comfortable enforcing developed ground rules for the audience or group to adhere to (e.g., there are no bad ideas).

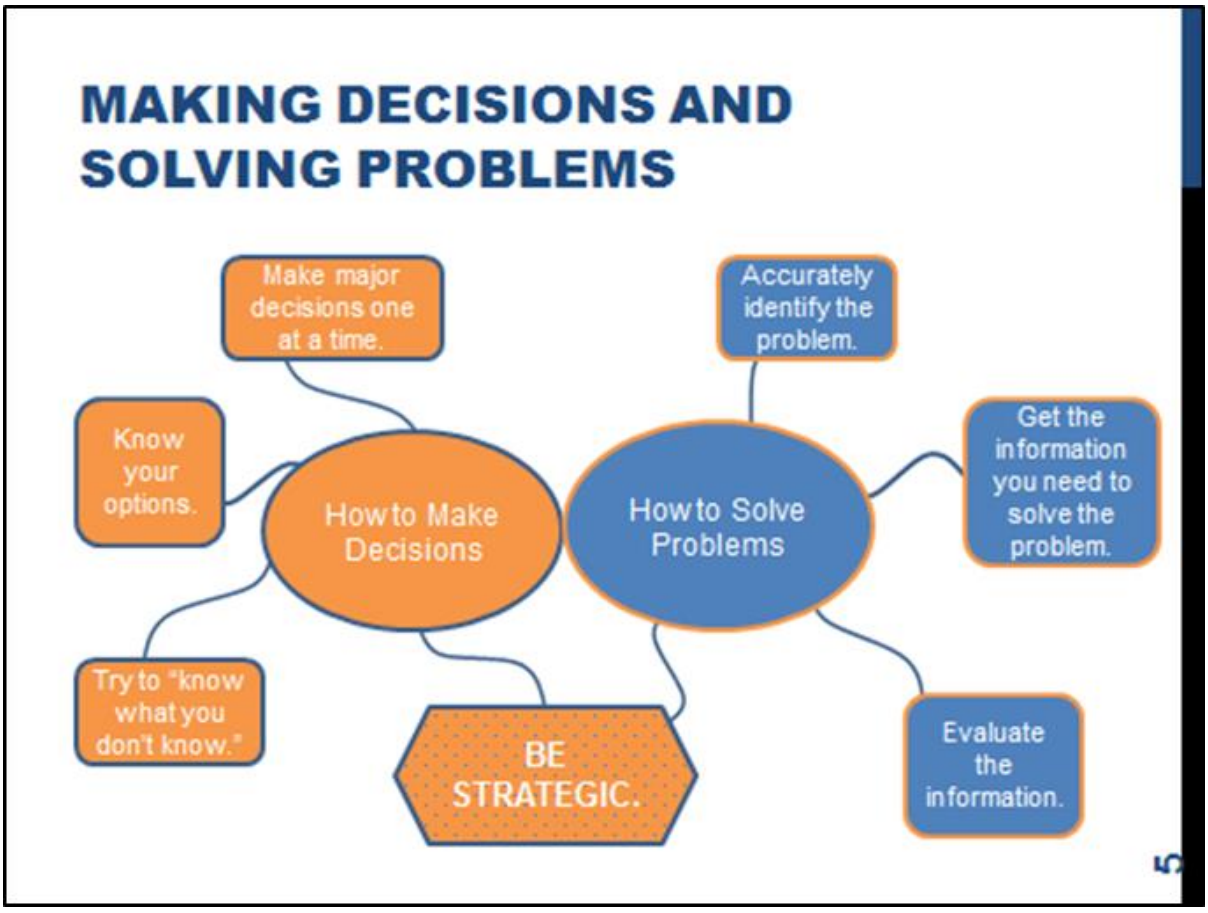
Additional Resources:

- The World Care Method
- Mind Tools Essential Skills for an Excellent Career: Brainstorming, Generating Many Radical, Creative Ideas
- Liberating Structures: 15% Solutions - Discover and Focus on What Each Person Has the Freedom and Resources to Do Now
- Liberating Structures: Discovery & Action Dialogue (DAD) – Discover, Invent, and Unleash Local Solutions to Chronic Problems

Concept Mapping

Concept mapping is a graphical representation of ideas that allows participants to discover and document links between information. When developing a concept map, the participants themselves are in control of the information. The participants select the information to include and determine the relationships within. Concept mapping is an

excellent tool for ensuring that participants are using their critical thinking skills and developing their own interpretation of the material. Concept maps can also help participants clarify their own thinking about a concept and begin to reconcile with their own belief system; therefore, it is an excellent way to address prior learning.



Audience Considerations	Learning Environment Considerations	Skills Needed
Concept maps should be used with smaller audience sizes because they are highly individualized and require increased interaction between the instructor and participants in the form of face-to-face dialogue and feedback.	Concept maps should be used in a learning environment where participants can move around freely and there is wall space available, so it may not work in an online environment.	Concept maps are participant-driven and therefore can be a useful tool for faculty and instructors at all skill levels. However, it is important that the faculty is an expert in the content in order to ensure that they are able to provide direction and clarification to participants as they develop the concept map.

Additional Resources:

- Inspiration Software, Inc.: Teaching and Learning with Concept Maps
- Liberating Structures: Social Network Webbing - Map Informal Connections and Decide How to Strengthen the Network to Achieve a Purpose

Gallery Walk

A gallery walk is a great way to engage participants and can be used in two distinct ways – 1) to generate ideas, and 2) to share and learn from peers. It is also a way to engage participants in a kinesthetic way (i.e., a tactile way), so it is a great strategy to incorporate after a lunch break or in the late afternoon.

When using a gallery walk to generate ideas, different stations are set up around the training environment, and participants are encouraged to visit each station as they would an exhibit in the gallery and interact with the prompt or the scenario provided.

When using a gallery walk for peer sharing, ideas that have been generated by groups (either during the training event or ahead of time) are viewed by the other participants. In this case, the participants visit each "exhibit" in the gallery to learn about the work of the other groups. If your curriculum has a gallery walk as an instructional strategy, remember to develop:

- Instructions for participants (if participants are expected to bring material, provide instructions sufficiently ahead of time).
- Instructions for the faculty for conducting the gallery walk (how long participants should stay at each exhibit, debrief prompts, etc.).

Audience Considerations	Learning Environment Considerations	Skills Needed
Gallery walks generally work better with small-to-medium sized groups (i.e., 30-40 participants).	A gallery walk works best during in-person trainings where there is adequate space. This instructional strategy can be loud, so a larger room or access to several different spaces is ideal.	Since, gallery walks are mostly participant driven, faculty at every skill level can conduct and facilitate gallery walks.

Additional Resources:

- The Teacher Toolkit: Gallery Walk

Peer-to-Peer Learning

Peer-to-peer learning instructional strategies are designed to allow people from similar professional backgrounds to share knowledge and experiences. Peer-to-peer learning allows participants to identify shared challenges and generate possible solutions to the shared challenges. It is also a way to increase buy-in from participants. For example, judges, public health workers, probation officers, social workers, or other professional groups, often consider new concepts and practices with a more open mind when it comes directly from one of their professional colleagues.

However, using this instructional strategy with success takes a great deal of structure and development, especially if the peers chosen to deliver new information are not formal trainers. Therefore, it is important to consider the following, during development:

- Goals and objectives related to peer-to-peer sharing
- Instructions for peer sharing via a handout or PPT slide
- Activity handouts (if applicable)
- Faculty notes for debriefing activity
- Instructions for identifying both challenges and solutions

Audience Considerations	Learning Environment Considerations	Skills Needed
Peer-to-peer learning can work with audiences of all sizes. However, as you design a peer sharing/networking activity, be thoughtful about how participants will share and consider creating a number of smaller groups. For example, if one group of professionals has 20 people, consider creating two groups of 10 for the purposes of the peer activity.	Peer-to-peer learning can be done both in person and online. When designing peer-sharing activities for in person groups be sure there is adequate space to accommodate a variety of peer groups and still allow the groups to hear each other. Online, peer sharing can occur in breakout rooms (if your platform supports them) or in a format such as the chat box feature.	For this instructional strategy, you may need a facilitator for each peer group; this facilitator does not necessarily need to be an expert. However, you may need a lead faculty member who is an expert facilitator to guide and debrief any activities developed to create good peer-to-peer learning.

Additional Resources:

- Edgenuity: Peer Knowledge Sharing: Making Teachers More Effective in the Blended Classroom
- Liberating Structure: Celebrity Interview – Reconnect the Experience of Leaders and Experts with People Closest to the Challenge at Hand

- Liberating Structures: Drawing Together – Reveal Insights and Paths Forward Through Nonverbal Expression

Case Studies

In a case study, participants determine a problem, the symptoms of the problem, the causes of the problem, and potential solutions to the cause of the problem. This is a useful exercise in determining the difference between the cause and symptoms of a problem, which is needed before proposing solutions to a problem. There are certain aspects to a good case study, for example it "tells a story, raises a thought provoking issue, has elements of conflict, promotes empathy with the central characters, lacks an obvious or clear-cut right answer, encourages participants to think and take a position, demands a decision, and is relatively concise." [10] Case studies are excellent tools for engaging participants in critical thinking. While a case study poses a scenario, the solutions to the scenario are entirely up to the participants. For example, discussing the possible effects of a policy or practice decision through a case study can help audience members think critically about how to implement that policy and/or practice.

Audience Considerations	Learning Environment Considerations	Skills Needed
Case studies will work best with small-to-medium size audiences to maximize peer-to-peer interactions.	Case studies can be used in almost any type of learning environment and are great for online training as well – for online course, consider using breakout rooms (if the online platform has this feature) to discuss the case studies in a small group format.	It might not be important for the faculty or instructor to be a content expert, if the case study includes BOTH the scenario and background information. This is true because the participants are serving as the experts here. With that in mind, faculty must be skilled at facilitating or moderating group discussions that may arise because of the case study.

Additional Resources:

- eLeap-Learning Management Systems: Everything You Need to Know to Create a Case Study with Impact
- BU Center for Teaching & Learning: Using Case Studies to Teach
- Carnegie Mellon University: Eberly Center for Teaching Excellence & Educational Innovation – Case Studies

Role Play

Role playing is a type of experiential learning, which takes the case study concept and adds specific “roles” for the participants to perform. However, role-playing is not “acting,” instead it allows participants to practice and refine skills. There are a variety of situations in which using a role-playing exercise is recommended.

1. Role playing can be used to solve a problem. Imagine the facilitation case study activity, but instead of just reading about the disruptive group member, participants were actually asked to experience a simulation of that situation with one of them acting as a disruptor. Second, role-playing can be used to apply skills. This type of practice as learning can be used to help participants refine and learn skills like interviewing techniques.
2. Role playing can be used to challenge participants’ assumptions or help them develop an appreciation for someone else’s viewpoint. Successful role-play scenarios are well written with sufficient information given to each student to ensure they understand the purpose of their “role.”
3. A debrief following a role play is also important to a successful experience. In the debrief, the teacher should discuss the scenario with the participants, get their feedback on the experience, and draw out learning points.
4. Curriculum developers should take time to develop and test role play scripts, systematic instructions, and detailed faculty notes.

Audience Considerations	Learning Environment Considerations	Skills Needed
Role play can be used with audiences of all sizes. For large audiences, only a small group of volunteers will participate in the role play, so be sure to include good discussion prompts that engage audience members who did not participate in the role play.	Role playing techniques can be in any learning environment. However, modifications to the training environment may be required – for example, arranging chairs to mimic a treatment session or a courtroom setting. In an online environment, ask participants in advance and provide ample prep time. Also, using video in the online environment may increase engagement, so it is important to determine the platform’s capabilities.	Role plays require highly skilled faculty or instructors. First, research the technique and consider starting with a relatively simple role-play scenario and working their way up to more complex situations. In the development of the role play the instructor should be very clear about the learning points and be ready to redirect class discussion toward these points during the debrief.

Additional Resources:

- University of New Brunswick: Creating Effective Scenarios, Case Studies, and Role Plays
- Liberating Structure: User Experience Fishbowl – Share Know-How Gained from Experience with a Larger Community

Action Planning

Developing an action plan is a great way to wrap up a training curriculum or module. It can lead to and increase ongoing technology transfer, as well as empower participants or groups to make changes based on new information. Therefore, an activity that assists participants or groups to create an action plan will allow them to drive the process AND create buy-in, which may help the group actually do the tasks on the action plan.

While there are many different formats for action planning, it is important that the activity designed include the following elements:

1. a description of what is to be accomplished;
2. a person or persons responsible for the task; and
3. a timeframe during which the task should be accomplished.

Audience Considerations	Learning Environment Consideration	Skills Needed
Action planning works best when working with audiences or groups who are working on similar goals and who have some power to assign task/deadlines. This can be done in large and small groups; however, it may work best to break up large groups into smaller workgroups.	Action planning can be done in any type of learning environment; however, reaching consensus regarding decisions and sharing action items may look different online. Consider using polls to help make a decision or using the chat box feature to share ideas.	Choose faculty or instructors who are skilled in facilitation and in helping audiences/groups make clear decisions, especially if decisions are perceived as having a high-stake component.

Additional Resources:

- Mind Tools: Essential Skills for an Excellent Career - Action Plans & Small-Scale Planning
- Liberating Structures: What, So What, Now What? W³ - Together, Look Back on Progress to Date and Decide What Adjustments Are Needed
- The Penn State Extension: The Seven Steps of Action Planning

[1] Abela, A. (2008). *Advanced Presentations by Design: Creating Communication that Drives Action*. San Francisco: Pfeiffer.
[2] Abela, A. (2008). *Advanced Presentations by Design: Creating Communication that Drives Action*. San Francisco: Pfeiffer, pg. 58.
[3] Id.
[4] Id.
[5] Abela, A. (2008). *Advanced Presentations by Design: Creating Communication that Drives Action*. San Francisco: Pfeiffer, pg. 61.
[6] Id.
[7] Abela, A. (2008). *Advanced Presentations by Design: Creating Communication that Drives Action*. San Francisco: Pfeiffer, pg. 62.
[8] *Students Don't Come To Lecture*. (2019, August 2). Retrieved from Carnegie Mellon University. Eberly Center: Teaching Excellence & Educational Innovation
[9] A brainstorming protocol. (2011). Journal of Staff Development, 32(1), 54.
[10] Kreber, C. (2001). Learning experientially through case studies? A conceptual analysis. Teaching in Higher Education, 6(2), 217-228.