The Patient Safety Education Program™
CANADA

Module 17: How to Build and Embed Patient Safety and Quality Content into Curricula/Education Programs

Emanuel LL, Taylor L, Hain A, Combes JR, Hatlie MJ, Karsh B, Lau DT, Shalowitz J, Shaw T, Walton M, eds. *The Patient Safety Education Program – Canada (PSEP – Canada) Curriculum.*

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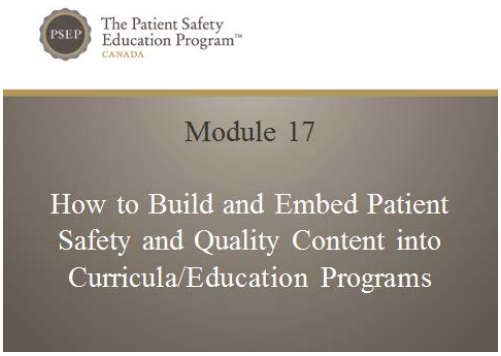
Abstract

Slide 1



This module provides PSEP – Canada trainers with educational approaches and practical guidance to assist them with embedding patient safety and quality content into curricula within their organizations. The module is relevant to both academic and clinical settings and presents a number of sound teaching strategies to facilitate learners' full engagement with patient safety and quality. This module also provides direction on how to design, implement, and evaluate educational programs. Opportunities and challenges associated with embedding patient safety and quality content into curricula and education programs are discussed. Suggestions from peers, who are successfully embedding and delivering PSEP – Canada content in their organizations, are identified throughout the module. This module provides trainers with tools and resources to support the linked 6 steps of learning and change process, from attitude change all the way through to creation of sustained new norms of practice.

Keywords

Embedding patient safety and quality; health care curricula; teaching methods; health professions; adult learning.

Teaching method

Mini-lecture; think-pair-share; small and large group work; guided reflection; trigger tape video; case study.

Objectives

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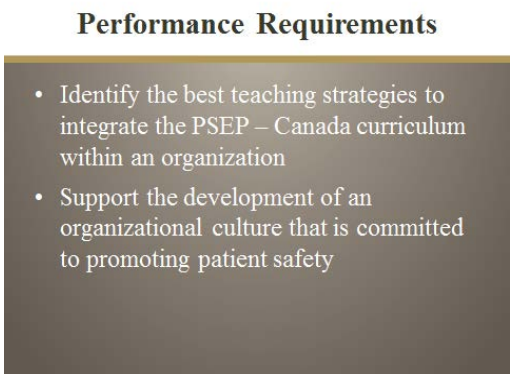

Knowledge elements

The knowledge elements include an understanding of:

- how to embed patient safety and quality into curricula/education programs
- how to teach others to embed patient safety and quality into curricula/education programs
- how to apply the Safety Competencies Framework to patient safety education curricula/education programs
- how to apply basic principles of teaching and learning, particularly "Backwards Design" and "Active Learning", when embedding and developing patient safety and quality into curricula /education programs

Performance elements

The performance elements include engaging in exercises to:

- identify the best teaching strategies to integrate the PSEP – Canada curriculum within an organization

- support the development of an organizational culture that is committed to promoting patient safety

Additional note

Throughout the module you will notice two important features: “For Reflection” and “Suggestions from Peers”. The “For Reflection” feature is posted at the end of a section, and it is intended to prompt the reader to reflect on what they have just learned. For example:

> **For reflection:**
>
> Consider one new concept learned from this section and consider how you might apply it within your organization.

The “Suggestions from Peers” feature are suggestions from peers that have successfully embedded PSEP – Canada content into their curricula and were willing to share their strategies for success. In order to provide a wide perspective on embedding the curricula, peers were chosen from a variety of healthcare organizations, such as large teaching hospitals, small community hospitals, community centres and educational sectors. For example:

> **Suggestions from peers:**
>
> Solicit Leadership Support. Soliciting leadership support was identified as being important for securing resources needed to disseminate PSEP – Canada content.

Introduction to patient safety education

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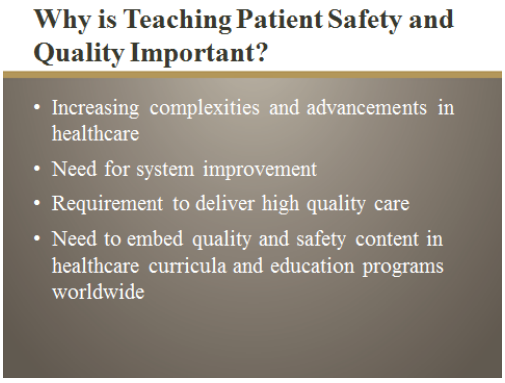

Why is teaching patient safety and quality important?

Embedding and integrating patient safety is integral to the work of all healthcare professionals and to those educating future healthcare professionals. Informally,

many front line staff in hospitals and healthcare organizations are already performing and thinking about patient safety.

For the integration of patient safety education to be successful, all members of the healthcare team need to be involved. In many healthcare organizations for true change to occur in the workplace culture it is best to involve patients, refer to Module 7a: Patients as Partners: Engaging Patients and Families: Patient and Family Centred Care for further information on engaging patients.

Regardless of the setting, buy-in from organizational leaders is essential for the implementation and sustainability of patient safety content in curriculum and educational material. For more information about this issue, please refer to Module 8: Leadership: Everybody's Job.

Suggestions from peers:

Solicit Leadership Support: Soliciting leadership support was identified as being important for securing resources needed to disseminate PSEP – Canada content.

Further, in order for knowledge and skills about patient safety education to be disseminated and transferred into an organization, there needs to be capacity built in this area. For more information about this issue, please refer to Module 15: Capacity Building: Transferring PSEP – Canada Knowledge to your Organization.

Suggestions from peers:

Identify and develop patient safety champions or coaches. Peers noted that they developed many patient safety champions or coaches who were able to fan out across their organization and deliver patient safety education rather than relying on one or two people. On units it was found to be helpful to have patient safety champion staff from those areas training their peers, as they knew about the specific demands from their units and the optimal timing for running the sessions based on the workload. Further, unit staff had already formed relationships with their peers.

Effectively teaching this content requires planning and the use of a variety of interactive teaching methods to engage learners. This module describes ways to incorporate key elements of patient safety content into curricula/programs; provides guidance about how to develop curricula/programs with the end in mind through Backwards Design; highlights the critical role of educators in effective instruction; and offers a number of active learning strategies, suited to a variety of instructional aims, which move beyond a traditional lecture by bringing content into a clinically applicable format that is based on sound theoretical principles.

Another critical component to ensuring patient safety education is not only taught but embedded in the norms of the organization is to ensure that educators are incessantly thinking of the 6 linked steps of learning which are highlighted in the

PSEP – Canada program namely: Attitudes, Knowledge, Skills, Behaviours, Outcomes and Norms.

Principles of teaching and learning

Defining the role of an educator

Educating healthcare professionals in both academic and practice settings requires that educators assume a variety of roles to facilitate the learning of others. They may be pharmacists, nurses, physicians, or allied health professionals in helping, healing, and other supportive roles; they often share a deep commitment to lifelong learning. Staff and educators involved in patient safety education should come from all levels of an organization. This enables patient safety education to target multiple audiences (spread) and affect real change. Staff and educators can capitalize on the progress organizations have already made and build upon it so that changes are sustainable. Effective educators tend to share the following traits.

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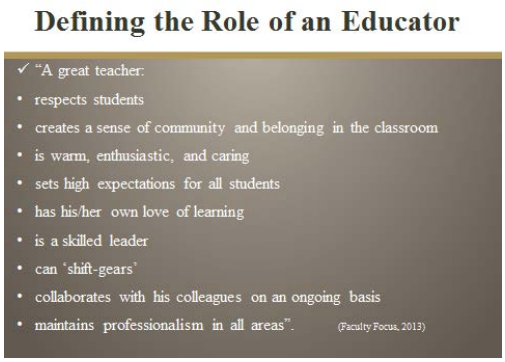

It is important to note that not all educators share the same approaches or philosophies, yet many enact similar behaviours. In fact, Faculty Focus states that "Effective teachers appear again and again to display certain characteristics, while ineffective teachers tend to make the same mistakes repeatedly."

A great teacher:

- Respects students;
- Creates a sense of community and belonging in the classroom;
- Is warm, enthusiastic, and caring;
- Sets high expectations for all students;
- Has his/her own love of learning;
- Is a skilled leader;
- Can 'shift-gears';

- Collaborates with his colleagues on an ongoing basis; and
- Maintains professionalism in all areas.

For reflection:

Thinking of one or two excellent teachers you have learned from, and of yourself, what qualities and actions do they/you have in common?

Tips for creating and sustaining a positive learning environment

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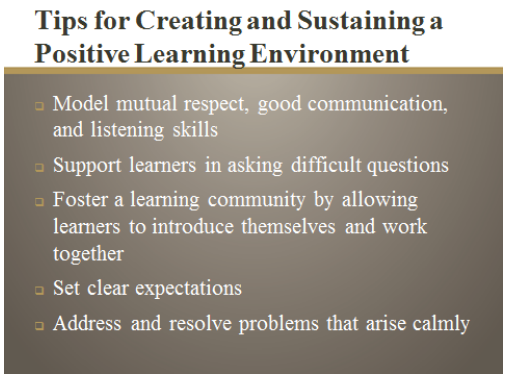

Create a safe space for learning by modeling mutual respect, good communication, and listening skills. Support learners in asking difficult questions, even ones that sound silly or obvious. Doing so will help the group to feel comfortable with one another and more able to focus on learning without distraction.

Foster a community by providing opportunities for learners to introduce themselves, develop their interests, perform specific tasks, and work together.

Set clear expectations for the session. When learners understand the task before them, they are able to engage with it more fully.

When problems arise, be honest. Address the situation immediately and calmly, and return to the primary focus of instruction when the issue is resolved. Further, the teachers or facilitators should debrief the sessions and decide what went well and what they would change for next time. They should be open to constructive feedback and at the end of the day they should welcome the opportunity to advance their skills in this area.

Suggestions from peers:

Debrief PSEP – Canada training sessions. All groups that were teaching the PSEP – Canada content noted that they welcomed suggestions for how to improve subsequent sessions.

Principles of adult learning

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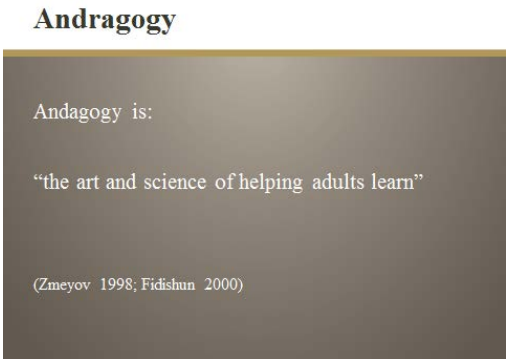

Andragogy is "the art and science of helping adults learn" Zmeyov (1998); Fidishun (2000). Conversely, pedagogy relates to teaching children, and how they learn. While traditional pedagogy is centered upon directing learners to proceed along the right path in order to meet set goals, adult learning focuses on an individual's life experiences as a starting point for his or her self-directed, process-oriented, independent learning. While pedagogy enforces external motivation, adult learning focuses on responding to internal developmental needs.

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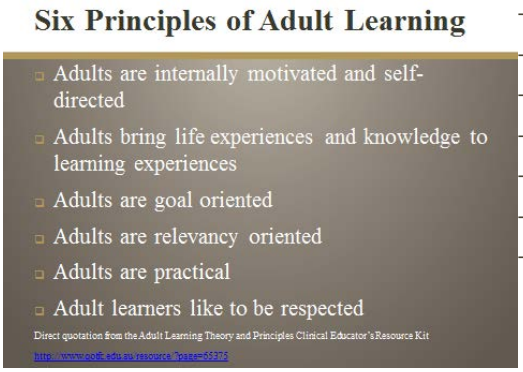

Malcolm Knowles, one of the fathers of adult education and a professor of adult education at Boston University, identified six principles of adult learning in *The Modern Practice of Adult Education, Knowles* (1970):

- adults are internally motivated and self-directed;
- adults bring life experiences and knowledge to learning experiences;
- adults are goal oriented;
- adults are relevancy oriented;
- adults are practical; and
- adult learners like to be respected.

In order to design learning experiences that are relevant to adults, the subject matter of instruction should be tied to their experience, relevant to their future, problem-

oriented, and practical, with clear applications to real life situations. For example, if an incident has occurred within an organization, it may serve as a better example than one that is removed from the situations they encounter. Further to that, when improving on the incident reporting system within an organization, it's important to build on the relevant experiences of adults in the development of a solution.

Learning styles

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When planning the type of learning experiences and instruction you will use for patient safety education, it is important to consider the needs of different learners. Seven distinct styles of learning have been identified. Learning styles highlight the manners in which people learn most effectively. In reality, people do not fit neatly into one category, but span across a number of categories. When incorporating learning styles, it is important to select a variety of strategies so that the needs of all learners are met. While it may not be possible to incorporate all seven styles in one session, it is possible to incorporate two or three strategies in a session and to change up the strategies you use for different sessions.

Seven learning styles

Visual: Visual learners learn most effectively with images, pictures, diagrams, mind maps, and the use of colour.

Kinesthetic (Physical): Kinesthetic learners learn best by "doing". This includes participating in simulations, role-playing scenarios, using objects, or drawing diagrams.

Aural: Aural learners learn best through sound. This includes listening to an instructor speak, hearing a book read aloud, listening to music, making up a song or a rhythm to remember important content.

Verbal: Verbal learners learn most effectively through the use of words- written and spoken. This includes the use of scripting, using word-based techniques (like creating an acronym or short-poem) to remember important content, and reading content aloud.

Logical: Logical learners learn best when logic and reasoning are used to introduce concepts. They look to understand the interaction among systems and see the bigger picture behind learning.

Social: Social learners learn most effectively when they work with other people. They enjoy social interaction and discussion when learning.

Solitary: Solitary learners learn best when they work alone or are involved with self-study.

> **For Reflection:**
>
> We tend to use the learning styles that we are most comfortable with. Consider the ways that you learn best. What types of strategies do you use to learn effectively? Now consider some of the strategies you don't normally use. How can you incorporate some of these strategies in patient safety education to better meet the needs of all learners?

Teaching styles

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Just like there are different learning styles, there are different approaches to teaching. It is important to be aware of the "style" you gravitate towards because this impacts your learners. If your teaching style is more teacher-centred, consider incorporating some of the positive elements of styles that are more student-centred. The following styles are based on information from *What Is Your Teaching Style?* by Colorado State University:

Formal Authority: This style is generally teacher-centred and focuses on content delivery. The teacher controls the dissemination of knowledge and there is often little interaction in class between the teacher and students.

Demonstrator: This style is mainly teacher-centred, but it incorporates the use of demonstration and role modelling. The teacher demonstrates skills and then helps students apply the skills. Students are responsible for what they need to know and asking for help if they have a problem.

Facilitator: This style is student-centred and tends to focus on the use of activities. The teacher designs learning tasks and activities that encourage learners to process and apply their learning in meaningful and creative ways. Students are responsible for taking the initiative in completing assigned activities and understanding material.

Delegator: This style relies on students to develop and implement their own learning projects. Responsibility for learning is placed on individuals or groups and the teacher takes on more of a consultative role.

A learning styles quiz is available in the Resources section of this module.

> **Suggestions from peers:**
>
> Incorporate a variety of teaching strategies. It was identified that given the variety of learners a variety of teaching methods need to be used to reach all learners. Further, it was advised to consider alternative methods of content delivery including personal anecdotes, simulation, videos, guest speakers, and online learning options.

Things to consider

Educating healthcare professionals in both academic and practice settings requires the promotion of team-based skills. In clinical settings, where collaboration with peers and hands-on learning is essential, small group and team-based instructional strategies may provide relevant opportunities for educators to build their skills.

Regardless of the setting, various factors affect the quality of teaching, such as the level and kind of learner; the size of the group, room configuration, and schedule; and the resources used to facilitate the learning experiences.

Feedback for course/program improvement

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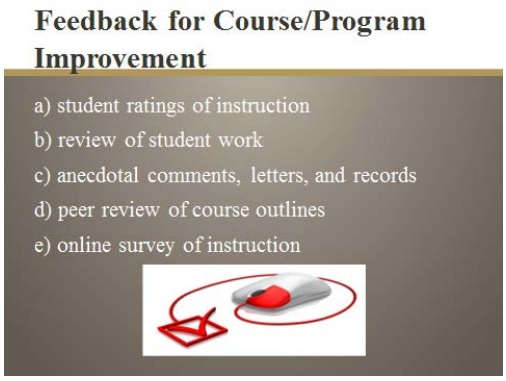


Evaluation of instruction and curriculum promotes continuous improvement. There are a number of techniques that can provide effective feedback for course/program improvement:

a) student ratings of instruction;

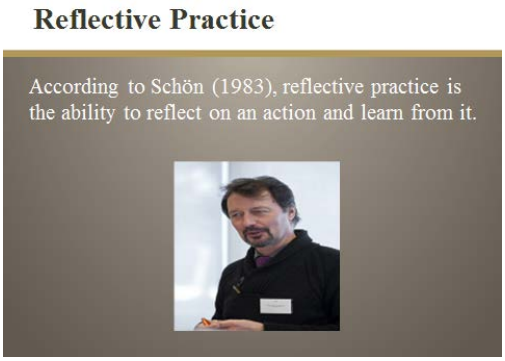
b) review of student work;
c) anecdotal comments, letters, and records;
d) peer review of course outlines; and
e) online survey of instruction and curriculum.

For reflection:

What types of feedback will help you improve your session, course, or program? How will you collect and use that data to ensure continuous improvement?

Reflective practice

Slide 12



According to Schön (1983), reflective practice is the ability to reflect on an action and learn from it. As part of this process, decisions and their outcomes are evaluated. Reflection promotes continuous improvement by identifying what works well and what needs to be improved. It provides opportunities to integrate formal and informal learning experiences in the context of professional development. Not only is reflective practice important in health care settings, it is a critical aspect of being a learner and an educator. As an educator, you need to provide learners with opportunities to think deeply about patient safety education material and make connections with their daily practices. As an educator, you need to consider how you can continuously improve your practice to make patient safety education more accessible and meaningful for learners.

Further as an educator it is important to also reflect on the linked 6 steps of learning and change process, i.e. attitude change all the way through to creation of sustained new norms of practice, and to consider how the educational material is supporting the learning and change process.

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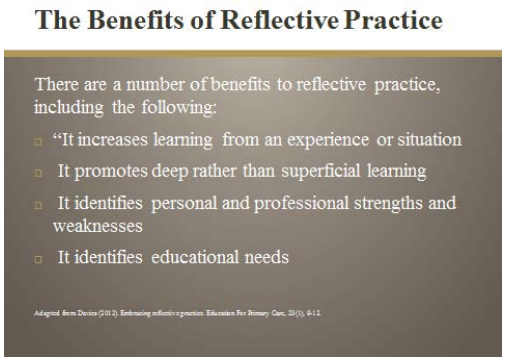

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There are a number of benefits to reflective practice, including the following that have been adapted from "Embracing reflective practice":

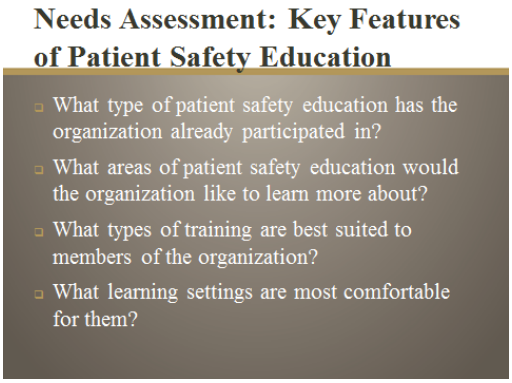
- it increases learning from an experience or situation;
- it promotes deep rather than superficial learning;
- it identifies personal and professional strengths and weaknesses;
- it identifies educational needs;
- it results in the acquisition of new knowledge and skills;
- it facilitates practitioners' understanding of their own beliefs, attitudes and values;
- it encourages self-motivated and self-directed learning;
- it acts as a source of feedback; and
- it improves personal and clinical confidence.

For reflection:

How can you use reflection to continuously improve instruction and curriculum? What techniques do you use to promote reflective practice?

Needs assessment

Slide 15



One strategy considered foundational for advancing the uptake of patient safety education is to assess the needs and priorities of the audience where the education is to be provided. This can be done with a needs assessment, by asking members of the organization about their needs directly, either through a survey or by way of conversations. Some questions that can be used to get to know the patient safety education needs of the audience.

- What type of patient safety education has the organization already participated in?
- What areas of patient safety education would the organization like to learn more about?
- What types of training are best suited to members of the organization?
- What learning settings are most comfortable for them?

The challenges

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Challenges

Organizations that have embedded patient safety content note that the PSEP – Canada curriculum is a valuable resource, and although they recognize and appreciate the

accordion-like approach, where they can select individual modules, one of their first challenges was to determine where to start.

Suggestions from peers:

Keep it simple. Peers identified that they needed to ensure that they roll out the content at a pace and a level that is appropriate for learners. They identified the need to focus on modules that are most pressing to meet the needs and priorities of their organizations.

As the focus of patient safety is broad and many topics within the area are important, there can be a dilemma faced on where to begin. A good place to consider starting is to reflect back on a needs assessment. Part of a needs assessment involves selecting what areas of PSEP – Canada content to focus on. For example, if an organization has little to no patient safety knowledge, then they may consider starting with the Plenary 3: What is Patient Safety? module. If an organization is dealing with a number of incidents involving the need to focus on disclosure, they may want to start with Module 3: Communication: Building Understanding with Patients and Caregivers in conjunction with the disclosure guidelines from the Canadian Patient Safety Institute.

A further challenge within organizations may involve understanding the hidden curriculum, (variously referred to with a variety of terms to differentiate between the formal e.g., “explicit, written, curriculum on paper and the informal e.g., hidden, implicit, unwritten, meta”, which is always at play in educational settings, consisting of knowledge, attitudes, behaviors, and skills that may be learned but not overtly intended by those who created a specific curriculum, (White, Kumagai, Ross, & Fantone, 2009). The hidden curriculum can be identified as an undercurrent within organizations to conform to practice in the manner that has been ascribed to within that culture, (Reisman, 2006). The problem is individuals may turn from the best practices that they learned in formal curriculum to succumb to organizations practices. If this is occurring within an organization, they may want to focus on Module 5: Organization and Culture.

If organizations can start with a module which addresses an identified need in the organization; buy in to the topic within the organization should be easier, which in turn should support further acceptance of patient safety education.

Suggestions from peers:

Be flexible. The module approach is completely flexible and is open and responsive to the needs of the group.

Another challenge can be the aspect of competing demands within the organization. Under competing demands, two key challenges can be that of time and money. It is important to embed patient safety content rather than present it as something new that is being offered. If the perception is that this content is totally new, a common question that may come up is “ok so what do we get rid of to accommodate that.”

Further staff may perceive that this content is the new flavour of the month and may not see the long-term relevance of the content. It would be preferable to demonstrate the link between what people are already doing and how the additional information can enhance the quality of care currently delivered.

Suggestions from peers:

Incorporate PSEP – Canada content into work the organization is already doing. One organization used the Patient Safety Culture evaluation tool from Accreditation Canada (a requirement) to focus and evaluate their patient safety learning. The organization aligned where they started with the PSEP – Canada curriculum to the identified content areas highlighted in the survey. Once they had evidence of the benefit that the PSEP – Canada content was providing through positive scores on the survey, they were in a good position to roll out further content.

In relation to financial resources, budgets for education within healthcare organizations and educational institutions are limited, and if patient safety content is seen as an addition and not embedded within the culture the program funding maybe cut.

Suggestions from peers:

Share resources and best practices. Given the limited time and money within organizations, sharing resources and best practices (including PowerPoints) across similar units and organizations is key. To further this point, PSEP – Canada's Community of Practice is a great resource for access to power point presentations, videos, tools and resources.

In regard to organizational culture, as cited in Module 5: Organization and Culture, "Health care organizations must develop a culture of safety such that an organization's care processes and workforce are focused on improving the reliability and safety of care for patients." (p.14; IOM, 1999). If the culture in an organization is perceived to be a hindrance to the uptake of patient safety education this may be a module to review and consider presenting to the senior team. Module 5 supports the need to embed patient safety content within the curriculum for if it is not embedded, it will not have the capacity to be sustained and spread within the organization. Further, this needs to be seen in all aspects, including policies within the organization such as staff education, patient safety/quality improvement procedures or protocol to advance the uptake of patient safety practices.

Suggestion from peers:

Encourage PSEP uptake through policy integration. It was acknowledged that policies need to be put into place to support and advance the uptake of patient safety practices.

Designing and embedding curriculum

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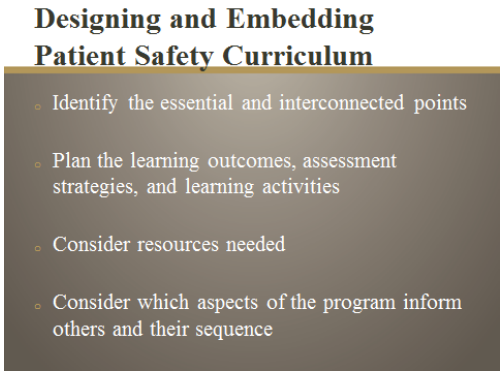

When planning a session, consider what the essential, interconnected points are, and what one needs to know in order to contextualize them. Plan the learning outcomes, assessment strategies, and learning activities. Consider what resources you will need and the timing of the session(s), and create an agenda to keep you and the learners on track. Determine where the learners are in relation to the learning outcomes, and think about the suitability of using an assessment at the beginning, to gauge where the learners are, and/or at the end of the session, to see what they have learned. As a rule, it is wise to build in more time for interactive engagement and less for lecturing, which encourages passive rather than active learning. Remember that no opportunity is too small; a conversation, an informal group meeting, or a coaching session may make a great stating point.

When considering what you want your session, course, or program to accomplish, it is recommended that you review the Safety Competencies framework developed by the Canadian Patient Safety Institute.

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First identify the domain(s) most relevant for the patient safety education you are planning and then develop your outcomes to reflect one or more competencies in the domain(s). Consider how you can communicate with learners about the Safety Competencies framework and how it relates to what they are learning.

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There are six domains of patient safety identified in the framework, each linked with specific competencies.

1. Contribute to a Culture of Patient Safety
2. Work in Teams for Patient Safety
3. Communicate Effectively for Patient Safety
4. Manage Safety Risks
5. Optimize Human and Environmental Factors
6. Recognize, Respond, and Disclose Adverse Events

Suggestions from peers:

Embed PSEP – Canada education holistically. Organizations mentioned that they embed the PSEP – Canada content holistically by integrating it into every teaching session offered by the organization, including orientation sessions and training for all units.

There are additional frameworks that can be considered for embedding patient safety content. An international example of a patient safety curriculum is the Australian Patient Safety Framework as depicted within the World Health Organization's Patient Safety Curriculum Guide (World Health Organization, 2011). Although frameworks and models may be perceived to be better suited for the academic settings, many practice settings utilize them as well. An example of how frameworks have been used in the practice setting can be found in the Resources section.

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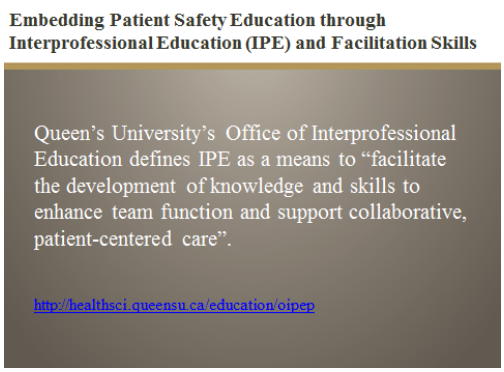

Interprofessional education (IPE) and facilitation skills

Organizations can embed patient safety education in their practice by encouraging their staff to participate in inter-professional education (IPE) and promoting the use of facilitation skills in organizational training. Queen's University's Office of Interprofessional Education defines IPE as a means to "facilitate the development of knowledge and skills to enhance team function and support collaborative, patient-centred care." (http://healthsci.queensu.ca/education/oipep/vision_goals). Further the Office of Interprofessional Education identifies that Inter-professional education provides opportunities to learn from the successes and challenges of other professionals involved with patient care.

Suggestions from peers:

Deliver patient safety education in both an Inter-professional and discipline specific manner. Peers identified the benefit of inter-professional patient safety education especially during team-based scenarios. Organizations mentioned that there were times they targeted discipline specific patient safety content if they wanted to focus on a learning event that affected nurses, physicians or allied health care providers primarily.

A suggested resource for exploring the competencies related to inter-professional education is the Canadian Inter-professional Health Collaborative (CIHC) Competencies.

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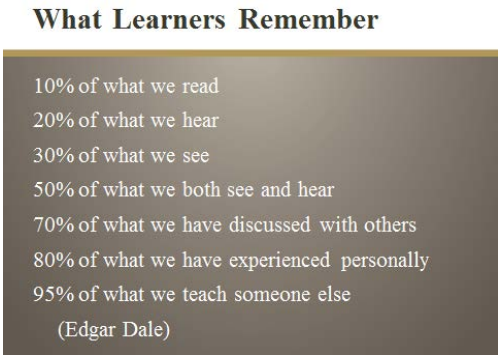


In this way, best practices in patient safety can be shared and adopted. Quality education is critical for learners to acquire intended knowledge and skills because learning is not merely a passive activity. In fact, research on teaching and learning in *Tips for Engaging Students in Learning: Alternatives to Lecture* suggests that we remember:

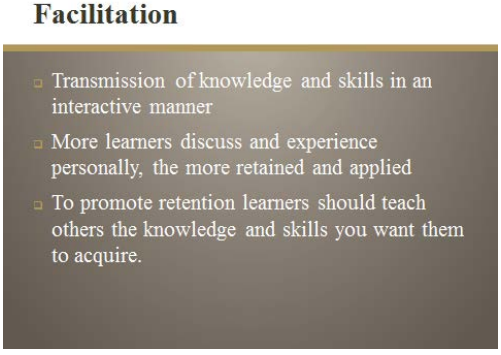
- 10% of what we read
- 20% of what we hear
- 30% of what we see
- 50% of what we both see and hear
- 70% of what we have discussed with others
- 80% of what we have experienced personally
- 95% of what we teach someone else

Suggestions from peers:

Supplement the PSEP – Canada modules with meaningful material. Peers identified the benefits of using case studies based on real life scenarios especially if they were built from cases that occurred within their organization.

Facilitation

Slide 22



The key to quality training is facilitating the transmission of knowledge and skills in an interactive manner. The more adult learners discuss and experience personally during training, the more they will retain and apply what was learned. The best way to promote retention is to have learners teach others the knowledge and skills you want them to acquire.

Suggestions from peers:

Provide training on PSEP – Canada delivery. Peers noted that it's not just about the content, but about using effective teaching and facilitation strategies. They noted that their staff and faculty required support to develop these skills. Further, they also noted that content should not be delivered through lecture style only. It was identified that facilitation skills are required to engage learners with the material in a meaningful manner.

Effective facilitation skills

The following tables outline skills necessary for effective facilitation. Being an effective facilitator is more about helping others develop their own thinking than merely sharing content.

Slide 23

Area of Facilitation	Facilitator's Role	Learner's Role
Discussion	• Develops thought-provoking questions that keep the discussion focused • Remains fairly neutral throughout the course of the discussion	• Answers questions thoughtfully • Listens and responds to colleagues in a respectful manner

Slide 24

Area of Facilitation	Facilitator's Role	Learner's Role
Content Transmission	• Teaches about fundamental concepts • Provides learners with experiences to interact with content and apply it- read, write, discuss • Highlights clinical relevance	• Learns about fundamental concepts and ask questions if there is a lack of understanding • Interacts with content • Makes connection to clinical setting

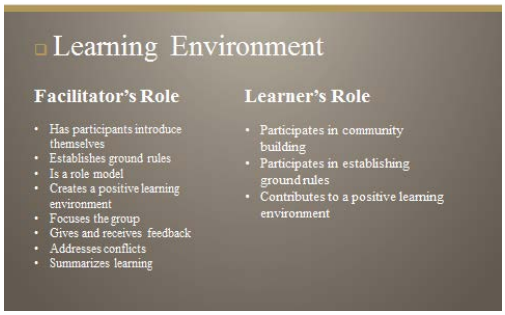
Slide 25

Area of Facilitation	Facilitator's Role	Learner's Role
Learning Activities	• Uses a variety of activities to meet the needs of all learners • Promotes discussion and experiential learning	• Engages with a variety of activities • Participates in discussion and experiential learning

Slide 26

Area of Facilitation	Facilitator's Role	Learner's Role
Goals	• Makes learners aware of the goals for the session • Identifies how learners will know if goals have been met	• Understands what they will be learning about • Knows whether goals for learning have been met

Slide 27

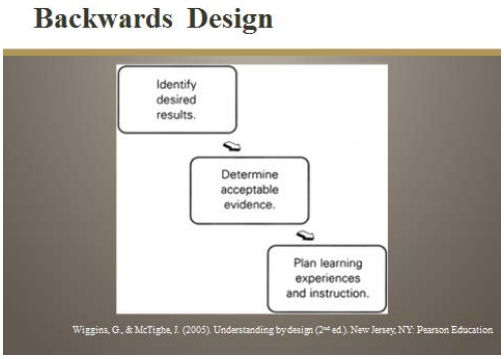


Area of Facilitation	Facilitator's Role	Learner's Role
Learning Environment	• Has participants introduce themselves (ice breakers) • Establishes ground rules with group • Is a role model- open, genuine, reflective, trustworthy • Creates a positive learning environment (respect,	• Participates in community building • Participates in establishing ground rules • Contributes to a positive learning environment

	humour, sense of community) • Focuses the group • Gives and receives feedback • Addresses conflicts • Summarizes learning	

Curriculum development using backwards design

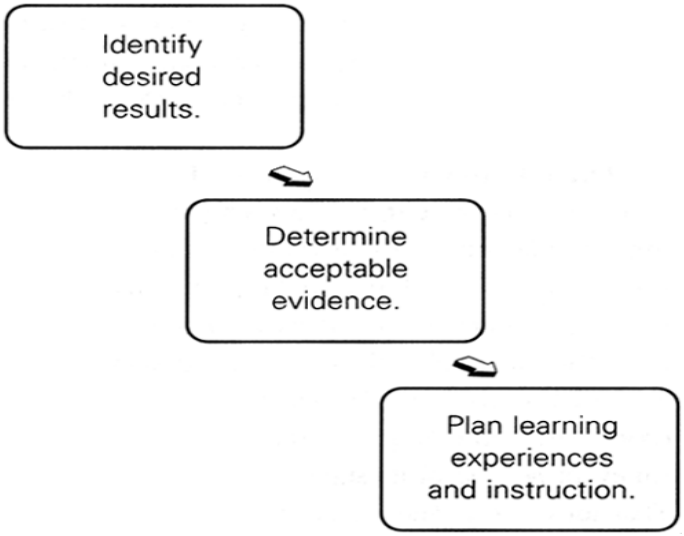
Slide 28



Curriculum development

The process of curriculum development involves planning and developing learning experiences for participants. In adult education, curriculum development tends to focus on content coverage. However, it is possible for content to be "covered" without real understanding on the part of participants. In order to ensure the learning needs of participants are met, Wiggins and McTighe (2005) recommend using the concept of "Backwards Design", a three step process that begins with the end, or desired outcomes, as the driving force in curriculum design. The three steps involved in Backwards Design are highlighted in the figure below and will be discussed separately.

Figure 1: Wiggins and McTighe backwards design



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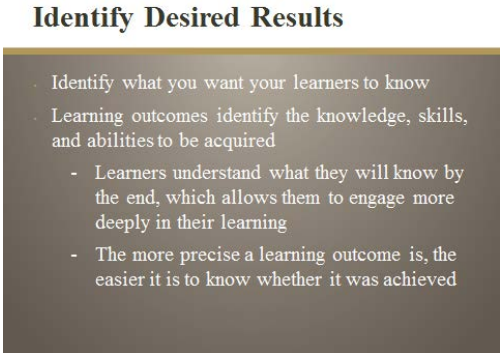


Identify desired results

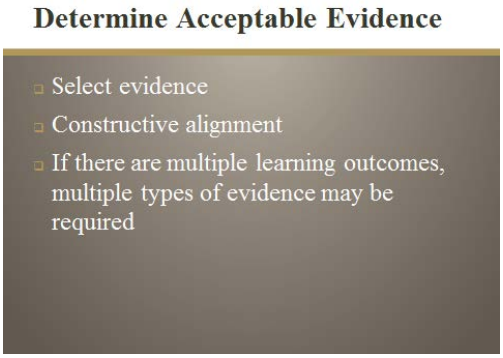
This first step in Backwards Design is to identify what you want your learners to know and be able to do by the end of your session, course, or program so that you can plan appropriately. Developing goals, known as learning outcomes in education, achieves this. Learning outcomes identify the knowledge, skills, and abilities you intend for learners to acquire. This provides learners with an understanding of what they will know by the end and allows them to engage more deeply in their learning. The more precisely a learning outcome is articulated; the easier it is to know whether it was achieved. An example of a learning outcome for Module 1: Systems Thinking: Moving Beyond Blame to Safety is:

- Participants will identify and apply key features of systems thinking in their organizations.

Learning outcome activity:

Select one of the key topics from the patient safety education program and develop a learning outcome for it. Make sure you identify the Safety Competencies domain your outcome reflects. It is recommended that this activity be completed as a Think-Pair-Share activity so participants have a chance to reflect on the idea of learning outcomes individually (Think), then discuss their learning outcome with a partner (Pair), and then share with the entire teaching or leadership team for clarification (Share). This activity could also be completed by individuals with one primary instructor having a debrief with all of the participants.

Slide 30



Determine acceptable evidence

In this step, you select evidence for how you will know if participants met the identified learning outcomes. This is really about how participants will demonstrate their learning. In determining acceptable evidence for learning outcomes, it is important that the type of evidence captures what it is you wanted students to learn. This is known as constructive alignment. If there are multiple learning outcomes, multiple types of evidence may be required to document learning.

Slide 31

Keep in mind that learning outcomes for a session, course, or program should include both knowledge and skill development. It is not enough for learners to acquire knowledge; they need to learn how to apply their knowledge in a meaningful way. Tests, exams, and written assignments may be effective at determining whether learners understand particular concepts, but they don't usually capture learners' skill sets. This is where the use of authentic assessments is applicable. Authentic assessments involve learners performing real world tasks that require the application of knowledge and skills. There are a number of authentic assessments that can be used as evidence:

- case study,
- simulation,
- observation,
- create a product,
- performance tasks,
- exhibitions and demonstrations,
- portfolios, and
- journals.

Constructive alignment activity

As indicated earlier, the first step in "Backwards Design" is to identify what you want students to learn (know and be able to do) by the end of your time together. This is communicated as a learning outcome. Once you know what you want students to learn, you need to think about how students will demonstrate their learning. Student learning is captured through assessments (evidence). Appropriate assessments capture what it is you intended students to learn.

In this activity, you will match the identified learning outcomes with appropriate assessments and justify your choices. Next, select acceptable evidence for the learning outcome you created. This can be done as a large group activity or in small groups.

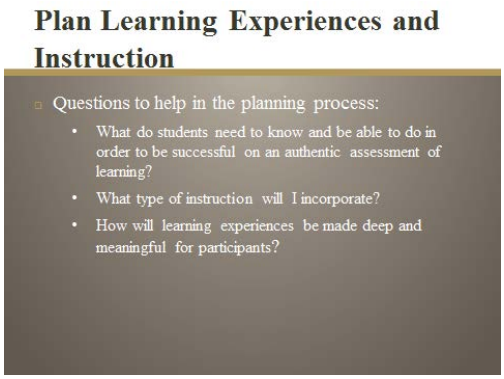
Learning outcomes:

1. Patients will identify the key features of systems thinking (knowledge of key features)
2. Participants will identify and explain the key features of systems thinking (knowledge and description of key features)
3. Participants will identify and apply the key features of systems thinking within their organizations (knowledge and application of key features)

Assessments:

1. A multiple choice test about the key features of systems thinking
2. A portfolio (collection) of the features of systems thinking with a report on each feature
3. A planned session outline about the key features of systems thinking within one's organization

Slide 32



Plan learning experiences and instruction

Once you have a firm grasp of your learning outcomes and the types of evidence (assessment strategies) you will be using, you can effectively plan targeted learning experiences and instruction to help participants meet desired outcomes. The questions below can help you in the planning process.

Knowledge and Skills for Development: What do students need to know and be able to do in order to be successful on an authentic assessment of learning?

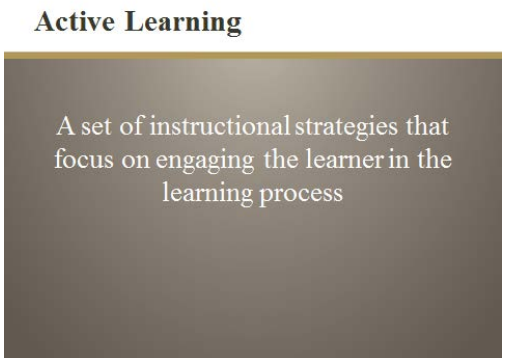
Instructional Strategies: What types of instruction will I incorporate?

Deep Learning: How will learning experiences be made deep and meaningful for participants?

The next section on Instructional Strategies identifies a number of teaching strategies for consideration.

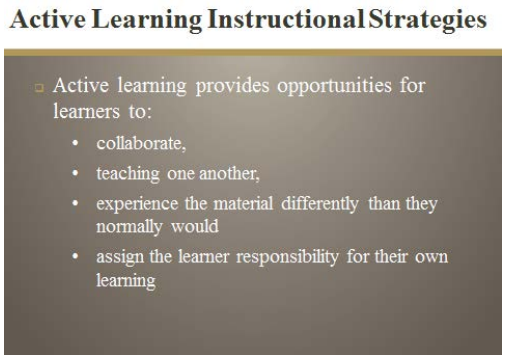
Active learning instructional strategies

Slide 33



The term **active learning** refers to a set of instructional strategies that focus on engaging the learner in the learning process. With active learning, students have the opportunity to learn material in a variety of ways; they cannot merely rely on an instructor for content transmission as they are more responsible for engaging with their learning.

Slide 34

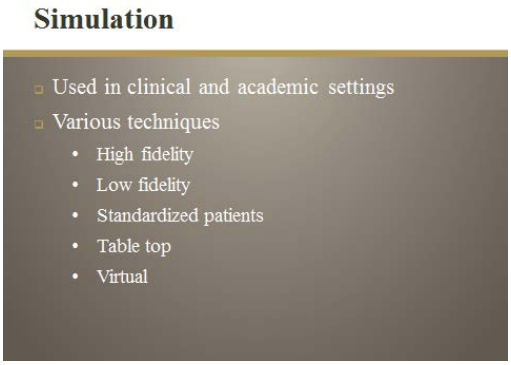


There are hundreds, perhaps thousands of different active learning strategies that can be used in various one-to-one, small group, and large group configurations. No matter which active learning strategies one chooses to employ, each one must be constructively aligned with the learning objectives and the material/content, meaning they must match your desired learning outcomes and assessment strategies. Active learning often incorporates opportunities for learners to collaborate, teach one another, or experience the material differently than they normally would, opening up their perspectives and assigning them the responsibility for their own learning

There are active learning strategies well suited for clinical settings and academic settings. Many of the active learning strategies can be used in both settings; however, their suggested use has been identified below.

Simulation

Slide 35



One technique that can be used in both the academic and practice settings is simulation. According to the Ontario Simulation Network, "Simulation is the imitation of some real thing, state of affairs or process. In health professions education, simulation is a methodology to help achieve educational goals. Healthcare simulation encompasses a range of activities that share a broad but common purpose: To improve the safety, effectiveness and efficiency of healthcare services."

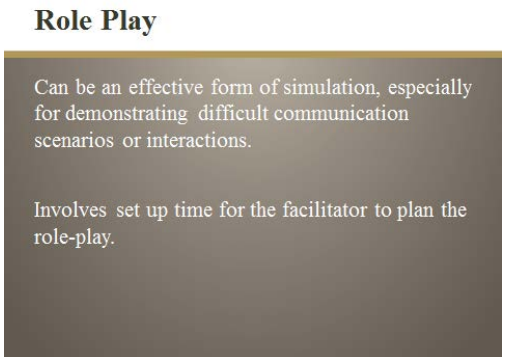
Simulations can be developed in various modalities, such as high fidelity, low fidelity, standardized patients, tabletop, and virtual.

Benefits: The benefits of simulation are that it provides learners with a safe environment to learn about patient safety incidences. Further, optimal practices, such as completing patient safety incident reports can be used during the simulation exercise. Another benefit of simulation is it can provide students with the opportunity to experience high-risk scenarios that they will have limited opportunity to experience in real life thus preparing them for the scenario should it occur. Further, a simulated experience allows for a shared learning experience in which everyone benefits from the debriefing experience. This shared learning provides an excellent opportunity to bring research and theory alive while reflecting on practice. Another benefit is that it is a great venue for inter-professional learning and with the various modes of simulation it is not dependant on having an expensive simulation room.

Cautions: Time intensive for planning and delivery. As well, a great deal of preparation needs to be planned for the debriefing period to ensure that all of the key aspects are brought forth. It can also involve the purchasing of expensive equipment.

Role Play

Slide 36



The use of role-play can be an effective form of simulation, especially for demonstrating difficult communication scenarios or interactions. The use of role-play involves set up time for the facilitator to plan the role-play. As identified in Action Module 1: Teaching Skills: Practicing Key Methods a role play involves many steps including: setting the stage, assigning roles, preparing to conduct the role play, actually conducting it, and then debriefing. The debriefing section is a way to engage a large amount of feedback from the larger group. The last step is to conclude the role play in which the facilitator summarizes key learning's from the role play.

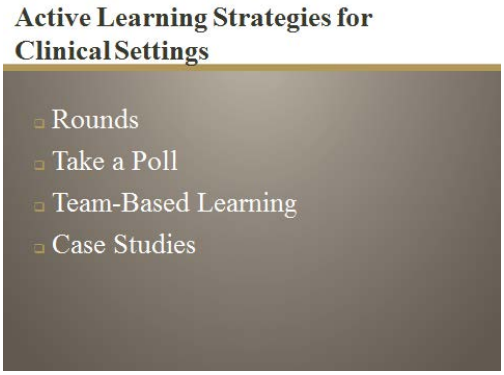
Benefits: The benefits of conducting role-plays are they can engage a large group and provide a shared learning experience if performed at the front of the class. It provides a way for learners to see a difficult communication situation and learn techniques to effectively communicate in a safe environment.

Cautions: This technique takes a great deal of thought and preparation. Further learners may not feel comfortable performing the role-play. Another caution is the facilitators' ability to effectively debrief and summarize the role-play.

Active learning strategies for clinical settings

In clinical settings, where collaboration with peers and hands-on learning is essential, small group and team-based instructional strategies may provide relevant opportunities for individuals to build their skills. Suggested strategies for the clinical setting include: rounds, take a poll, and team-based learning.

Slide 37



Rounds

For this activity, each learner takes a turn to speak briefly on an issue.

Benefits: This works to establish a balanced pattern of interaction and gives everyone the opportunity to participate. Using rounds at the beginning of a session is a great way to get participants engaged right away. It is also a good method for having learners introduce themselves so everyone can hear about each other.

Cautions: Rounds can be time consuming if there are a lot of participants. Consider doing a modified "rounds" by having learners take turns speaking in a group. This activity can also be difficult if you have participants who are reluctant to share in a large group setting. In order to accommodate the needs of less social participants, you could give them the option to "pass" when it is their turn. If you use this technique over a number of sessions, participants may feel more comfortable to share in the large group setting and not use the "pass" option as much.

Take a poll

Pose multiple-choice questions to learners and have them answer with a response card.

Benefits: This gives you a good indication about what learners know and don't know about material in an efficient manner. If the majority of students do not select a correct response, you could have them engage in peer teaching with a partner to see if pairs can come up with a better response by asking them to respond to the poll once again. The key to doing this effectively is having students respond anonymously by holding the response card up to their chest and responding on a signal, such as "Go!"

Cautions: More challenging questions would likely result in a need to follow-up with peer teaching or instructor explanation. This activity requires you to develop questions ahead of time and may require students to read material before the session so they are prepared to answer questions. If students do not come prepared to answer questions, you may need to allow them to review material during the session or develop strategies for ensuring that they come to sessions prepared.

Team-based learning

Uses learning teams to promote student engagement and allow students to learn from one another. Learning tasks include instructor-devised activities that invite students to immediately apply their learning, for example, open-ended questions that can be answered in teams given the learning completed to date.

Benefits: Team-based learning incorporates the expertise of a "team" of learners, promotes thoughtful discussion, and results in collaboration. The key to using this strategy effectively is to design relevant learning tasks that engage learners and to be explicit about learning team roles. Instructors may need to provide resources for learners to complete learning tasks or allow students to "bring their own device" if internet research is required.

Cautions: Learning tasks can be time-consuming so certain learning tasks may need to be spread over the course of a couple of sessions or one can have leaners complete readings prior to a session to be prepared for the learning task. Evidence of learning task completion is recommended to keep learners on task. It should fit the task and does not necessarily need to be written. For example, learners may present a role play about how they would respond to a particular scenario refer to Action Module 1: Teaching Skills: Practising Key Methods for further information on Role Play activities

Case studies

Learners work together to make inferences and make analytical assessments of a case study and its potential solutions.

Benefits: Case studies are an effective way to have students engage in practical and relevant work. Including realistic details makes cases more meaningful. Participants could be involved with co-creating cases or be asked to develop a case for their peers to work through.

Cautions: Learners can become frustrated with the over-use of case studies so it is important to use case studies strategically. Clear instructions about how to present case study findings helps to guide learning. For example, do you want learners to fill in a chart with identified criteria or provide a paragraph explanation for each section?

Methodology for bringing alive the patient voice

Slide 38

Case studies can be effective in bringing the patient voice to life, especially when video material is combined with learners reflecting on questions about the patient experience. If you don't have access to a video case study connected with the topic you are teaching about, consider having a patient come as a "guest speaker" or using a written narrative of a patient's experience (i.e., blog, poem or story).

Learning teams provide another opportunity for bringing the patient voice to life. This can be done by assigning teams scenarios in which multiple perspectives need to be addressed and analyzed, including patients' perspectives.

Some organizations collect survey data about patients' experiences. Presenting relevant survey responses in light of a patient safety education topic is another way to bring the patient voice to life.

Activity

As you watch the Kapka Petrov video listed in the Resources section (One Woman's Misfortunes Show the Importance of Patient Voice, by the CPSI), develop questions that you could pose to learners about Kapka Petrov's experience.

Suggestions from peers:

Use teachable moments. Many peers mentioned that content does not always have to be delivered by PowerPoint and can even be given through an informal dialogue during a teachable moment on the unit. How can teachable moments be used to help bring alive the patient voice?

Active learning strategies for academic settings

Suggested strategies for the academic setting include case studies, readiness assurance test, convince your neighbour, forced debate, carousel and interactive lecture, and also bringing to life the patient voice for trainees. Although as previously

mentioned, these strategies though recommend for the academic setting do not preclude use in the clinical setting.

Slide 39

In the academic setting various strategies can be used based on the size of the group, the style of classroom and the fit with instructional design.

Readiness assurance tests

This is a short test at the beginning of a session that learners must complete on their own. While the individual tests are being graded, learners work in teams to either re-take the test as a group or discuss it.

Benefits: Group discussion and peer input can help to correct misinformation and deepen all learners' understanding of the material.

Cautions: You may want to have students re-take the test as individuals at the end of the session to ensure that they have a better grasp of concepts. If learners do not have a better grasp of materials than when they started, you could provide them with additional resources to guide their learning. If grades for readiness assurance tests will be used, assure individuals that the higher test score will be the mark that counts towards their final grade so that they are not penalized for a lower mark that their group may get.

Convince your neighbour

Pose a question to the class and ask learners to solve it on their own. Then ask them to share their answer with their neighbour and defend it.

Benefits: This gives learners an opportunity to think deeply about a question before they have to answer it.

Cautions: This activity may be more effective if learners are prepared to defend an argument/point of view. You may want to consider giving learners the question in advance and directing them to resources that may be useful. You may also allow learners to convince their neighbour using visual materials like charts and diagrams.

Forced debate

Ask learners to agree to disagree with a proposition. Switch the proposition so that those who agree must disagree, create a group of moderators, and hold a debate.

Benefits: This helps learners understand multiple perspectives and prepare thoughtful arguments.

Cautions: This activity may be more effective if learners are prepared to defend their new proposition. You may want to consider giving learners in-session time to research the new proposition or provide sufficient resources about both propositions prior to the forced debate. You may allow learners to use visual materials for the debate like charts and diagrams.

Carousel

Post questions around the room and invite learners to contribute written responses.

Benefits: This gives learners an opportunity to freely consider perspectives other than their own. It also gives them an opportunity to reflect on what has already been written before contributing their own response. It is helpful if the instructor reads all the responses to the questions at the end so that everyone has the chance to hear what was contributed, and this also gives the instructor an opportunity to ask for clarification about points that require further explanation.

Cautions: Learners who appreciate more structure and enjoy working with others may not be as engaged in this activity. This activity can be modified to encourage more interaction by having learners work in small groups to answer specific questions after designated intervals.

Interactive lecture

An interactive lecture is a teaching method that allows for the delivery of large amounts of content to large groups. However, there is still an ability to use interactive methods within the large group setting. For specific tools and techniques in the delivery of interactive lectures refer to Action Module 1: Teaching Skills, Practising Key Methods.

For example, in a setting of two hundred people or more, the facilitator can use think-pair-share or small group case studies during the lecture.

Benefits: The benefit of an interactive lecture is that it is possible to deliver content to a large group.

Cautions: A primary caution of this method of delivery is that the facilitator needs to ensure that the lecture has a variety of teaching techniques and is not is simply PowerPoint slides.

For reflection:

What types of active learning experiences are you most familiar with? Which ones would you like to learn more about? What are the benefits of active learning? What are the challenges of active learning? How can these challenges be overcome? [you may want to create a chart for this discussion to list each challenge and then recommendations for how to overcome the challenge next to it] What types of active learning strategies are suitable for the patient safety education-learning outcome you created? Why?

Structure and sequencing

If you are involved in a health care program, it can be helpful to review individual courses to determine where learning outcomes are taught and assessed in the program. Developing a curriculum map of the program can help you with this. As you review your curriculum map, consider which aspects of the program inform others and the sequence in which learners progress through courses/modules. You may need to adjust the sequence of courses if progression is not linear. You will also need to identify where learning outcomes overlap and where gaps exist. If there is too much overlap, courses may need to be removed or redesigned so they are not redundant. If gaps exist, courses may need to be added or redesigned to ensure necessary learning outcomes are met.

For information about curriculum maps, please see the Basic Curriculum Map document developed by the University of Guelph listed in the Resources section.

To give you a better idea about how a curriculum map works, a curriculum map of the PSEP – Canada program has been developed using two core modules in relation to two program objectives. Formally, it is important to review the competencies through curriculum mapping. Some settings may be more involved in informal mapping and suggested examples of this form of mapping for the clinical setting can be found on the Canadian Association of Paediatric Health Centres Knowledge Exchange Network Safety Competencies Challenge. An example of this knowledge exchange network is listed in the Resources section.

An example curriculum map of the PSEP – Canada program

The two core PSEP – Canada modules used for this curriculum mapping example are Module 3: Communication: Building Understanding with Patients and Caregivers and Module 4: Teamwork: Being an Effective Team Member.

The mapping was done in relation to the following two learning objectives:

1. Develop skills to ensure the integration of patient safety concepts in academic and clinical settings
2. Develop knowledge and understanding to promote patient safety

As you review the curriculum map, consider the overlap and gaps that exist with respect to learning objectives. Is the overlap helpful or unnecessary?

Is there anything missing from one or both modules that should be covered in regards to the learning objectives?

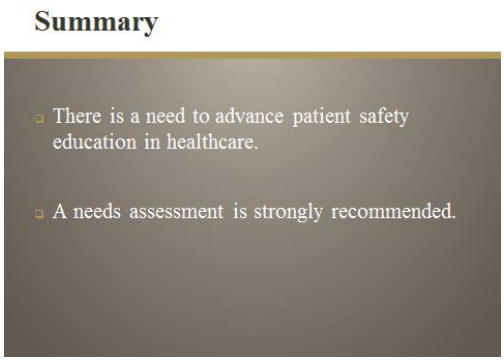
Core PSEP – Canada Module	**Learning Objective #1: Develop Skills to Ensure the integration of Patient Safety concepts**	**Learning Objective #2: Develop Knowledge and Understanding to Promote Patient Safety**	**Patient Safety Program Goal**
Module 3: Communication	- presents the basics steps to effective communication with patients and caregivers, including how to be culturally respectful and knowledgeable	-identifies the methods for communicating risk to patients and their caregivers appropriate to their needs and wishes	- there are fewer adverse events and better treatment outcomes when there is good communication between patients and their caregivers and when patients are fully informed and educated about their medications
Module 4: Teamwork	- knowledge alone will not make you a good team player; you also need to understand the culture of your organization and how it impacts on team functioning - strategies to achieve timely and accurate communication are presented in a format developed by TeamSTEPPS.	- presents the underlying knowledge required to become an effective team member - identifies the performance requirements for each member of the team	- being an effective team member will have an immediate positive impact on the quality and safety of patient care

Practical lessons learned

Embedding and integrating patient safety is integral to the work of all healthcare professionals and to those educating future healthcare professionals. Regardless of the setting, patient safety education needs to be embedded in curriculum and delivered in a way that respects adult learners and engages them in the process by using a variety of teaching leaning strategies. It is further disseminated and transferred within the organization by soliciting leadership support and building capacity within the organization.

Summary

Slide 40

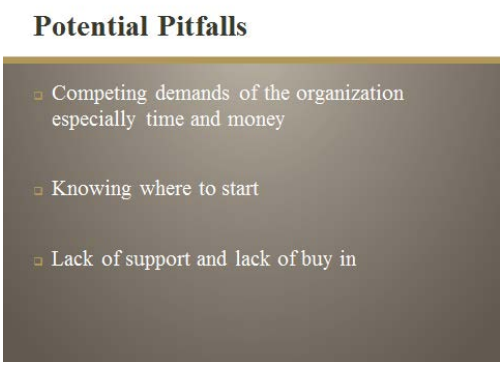


There is a need to advance patient safety education in healthcare and to ensure that patient safety education is not only taught but embedded into the norms of the organization. The importance of educators continuously thinking of the 6 linked steps of learning (namely: Attitudes, Knowledge, Skills, Behaviours, Outcomes and Norms) should always be at the forefront of building and embedding patient safety concepts and content into curriculum.

When introducing patient safety education concepts, a needs assessment is recommended. This will help determine what areas staff requires more training in. For example, are staff able to identify key features of patient safety education and embed them into curricula and programs? Do they know how to apply the Safety Competencies Framework to patient safety education curricula and programs? Do they understand and apply basic principles of teaching and learning, particularly the concepts of “Backwards Design” and “Active Learning,” to patient safety education curricula and programs? It is also important for organizations to map their curriculum to assess where patient safety education content is already being introduced, delivered and advanced. This will help organizations determine where content needs to be supplemented and, possibly, eliminated.

Potential pitfalls

Slide 41

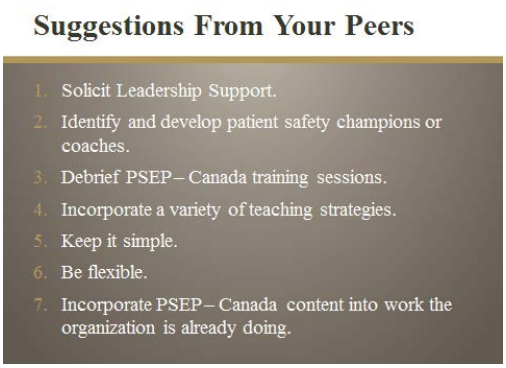


Key challenges include:

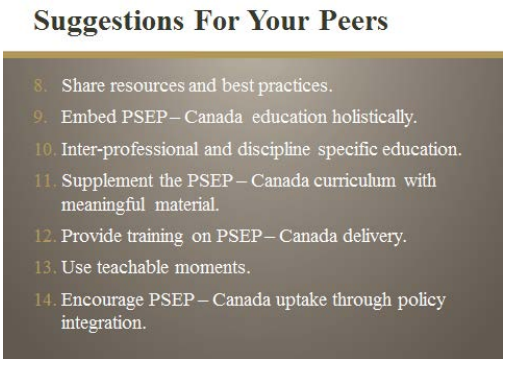
- competing demands of the organization especially time and money,
- knowing where to start, and
- lack of support and lack of buy in.

Pearls

Slide 42



Slide 43



1. Solicit Leadership Support. Soliciting leadership support was identified as being important for securing resources needed to disseminate PSEP – Canada content.
2. Identify and develop patient safety champions or coaches. Peers noted that they developed many patient safety champions or coaches who were able to fan out across their organization and deliver patient safety education rather than relying on one or two people. On units it was found to be helpful to have patient safety champion staff from those areas training their peers, as they knew about the specific demands from their units and the optimal timing for running the sessions based on the workload. Further, unit staff had already formed relationships with their peers.
3. Debrief PSEP – Canada training sessions. All groups that were teaching the PSEP – Canada content noted that they welcomed suggestions for how to improve subsequent sessions.
4. Incorporate a variety of teaching strategies. It was identified that given the variety of learners a variety of teaching methods need to be used to reach all learners. Further, it was advised to consider alternative methods of content delivery including personal anecdotes, simulation, videos, guest speakers, and online learning options.
5. Keep it simple. Peers identified that they needed to ensure that they roll out the content at a pace and a level that is appropriate for learners. They identified the need to focus on modules that are most pressing to meet the needs and priorities of their organizations.
6. Be flexible. The module approach is completely flexible and is open and responsive to the needs of the group.
7. Incorporate PSEP – Canada content into work the organization is already doing. One organization used the Patient Safety Culture evaluation tool from Accreditation Canada (a requirement) to focus and evaluate their patient safety learning. The organization aligned where they started with the PSEP – Canada curriculum to the identified content areas highlighted in the survey. Once they had evidence of the benefit that the PSEP – Canada content was providing through positive scores on the survey, they were in a good position to roll out further content.
8. Share resources and best practices. Given the limited time and money within organizations, sharing resources and best practices (including PowerPoints) across similar units and organizations is key. To further this point, PSEP – Canada's Community of Practice is a great resource for access to power point presentations, videos, tools and resources.

9. Embed PSEP – Canada education holistically. By integrating it into all aspects of an organization's training. Organizations mentioned that they embed the PSEP – Canada content holistically by integrating it into every teaching session offered by the organization, including orientation sessions and training for all units.

10. Deliver patient safety education in both an Inter-professional and discipline specific manner. Peers identified the benefit of interprofessional patient safety education especially during team-based scenarios. Organizations mentioned that there were times they targeted discipline specific patient safety content if they wanted to focus on a learning event that affected nurses, physicians or allied health care providers primarily.

11. Supplement the PSEP – Canada curriculum with material which resonates with the learners Peers identified the benefits of using case studies based on real life scenarios especially if they were built from cases that occurred within their organization.

12. Provide training on PSEP – Canada program delivery. Peers noted that it's not just about the content, but about using effective teaching and facilitation strategies. They noted that their staff and faculty required support to develop these skills. Further, they also noted that content should not be delivered through lecture style only. It was identified that facilitation skills are required to engage learners with the material in a meaningful manner.

13. Use teachable moments. Many peers mentioned that content does not always have to be delivered by PowerPoint and can even be given through an informal dialogue during a teachable moment on the unit.

14. Encourage PSEP – Canada uptake through policy integration. It was acknowledged that policies need to be put into place to support and advance the uptake of patient safety practices.

Tool kits and outcome measures

Teaching strategies toolkit

The following toolkit is designed to help you choose the most suitable active learning strategies for your organization's learning environment.

Duration of Session	Small Groups	Large Groups	Teams
Long Session (60+ mins)	**Poll** Pose a yes-no question and take a show of hands. Provides a strong lead-in to a session that complicates ideas or issues. **Forced Debate** Ask learners to agree to disagree with a proposition. Switch the proposition so that those who agree must disagree, create a group of moderators, and hold a debate. Leave sufficient time to debrief. **Learning Tasks** Instructor-devised activities that invite students to immediately apply their learning, for example, open-	**Readiness Assurance Tests** The session begins with a short test that learners must complete on their own. While the individual tests are being graded, learners work in teams to either re-take the test as a group or discuss it. The group discussion and peer input can help to correct misinformation and deepen all learners' understanding of the material. **Convince your Neighbour** Pose a question to the class, ask learners to solve it on their own. Then ask them to	**Learning Teams** Learners are assigned roles, and work together to teach one another based on their understanding. **Case Studies** Learners work together to make inferences and make analytical assessments of the case study and its potential solutions. **Games** Jeopardy-like games provide a forum for learning and levity that can break up tension and get groups of learners to work together.

	ended questions that can be answered give the learning completed to date. **Partial Solution** Present learners with a partial solution that requires them to critically assess the problem. This can be done individually, in pairs, or in small groups.	share their answer with their neighbour and defend it. Debrief the activity. **Cue Cards** Ask learners to write down the questions they would like you to answer. Answer them for everyone's benefit.	**Concentric Circle** Learners arrange themselves in a circle in order to engage in an observable activity. The other learners observe from the outer circle. **Jigsaw** Each member of the group completes a discrete part of an assignment, so that when the pieces are joined, the jigsaw is complete. **Instructional Simulations** Learners take on assigned roles and model expected behaviour. This enables learners to gain a better understanding of their role and the context for the situation.

Short Session (30-60 mins)	**Rounds** Each learner takes a turn to speak briefly on an issue. Works to establish a balanced pattern of interaction. **Carousel** Post questions around the room and invite learners to contribute responses. Gives learners an opportunity to freely consider other perspectives than their own. **Take a Stand** Pose a question and ask learners to rate their responses on a Likert scale. Pair learners with different responses to consider alternate viewpoints. Debrief. **One-Minute Paper** Learners are given a question and a minute to respond in writing on a blank piece of paper. These are useful for anchoring a key take-away message,	**Guided lecture** A guided lecture of 20-30 minutes followed by an elaboration/ clarification on the material. **Buzz Groups** Small groups of two or three learners to discuss a topic for a short period. They are useful for establishing an interactive dynamic. **Mind Mapping** Ask learners to graphically represent the key concepts learned. This gives learners a personal sense of the material and enables them to link to it to what they already know.	**Panel Discussions** Learners give presentations or reports in front of the class. Panellists must be well prepared and take time to answer questions from the audience. **Role play** Learners are assigned roles and the other learners view the interaction. This is a great way to illustrate scenarios that are difficult to imagine. **Think-Pair-Share** Pose a question to the learners, given them time to think, before turning to peers to compare responses.

	checking in with learners to see whether they have grasped the concepts taught, need more reinforcement, or have questions. **Mind Mapping** Ask learners to graphically represent the key concepts learned. This gives learners a personal sense of the material and enables them to link to it to what they already know.		

Resources

Patient Safety Education Program – Canada
http://www.patientsafetyinstitute.ca/English/education/PatientSafetyEducationProject/Pages/default.aspx

Tips for Engaging Students in Learning: Alternatives to Lecture, by McGill Universityhttps://www.mcgill.ca/files/gps/Tips_for_Engaging_Students_in_Learning_LTT.pdf

Queen's University, Office of Interprofessional Education and Practice (OIPEP)
http://healthsci.queensu.ca/education/oipep/vision_goals

Canadian Interprofessional Health Collaborative (CIHC) Competencies:
http://www.cihc.ca/files/CIHC_IPCompetencies_Feb1210.pdf

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Basic Curriculum Map, University of Guelph
http://www.uoguelph.ca/vpacademic/avpa/outcomes/pdfs/Basic%20Curriculum%20Map.pdf

One Woman's Misfortunes Show the Importance of Patient Voice, by the CPSI
http://www.patientsafetyinstitute.ca/English/news/PatientSafetyNews/Pages/Kapka-Petrov.aspx

Adult Learning Theory and Principles Clinical Educator's Resource Kit
http://www.qotfc.edu.au/resource/?page=65375

Characteristics of Effective Teachers, by Stanford University Teaching Commonshttps://teachingcommons.stanford.edu/resources/teaching/planning-your-approach/characteristics-effective-teachers

Nine Characteristics of a Great Teacher, by Maria Orlando, Faculty Focus, Jan 14, 2013 http://www.facultyfocus.com/articles/philosophy-of-teaching/nine-characteristics-of-a-great-teacher/

"What Is Your Teaching Style?" Colorado State University
http://biz.colostate.edu/mti/tips/pages/WhatisYourTeachingStyle.asp

Knowledge Exchange Network, Safety Competencies Challenge http://ken.caphc.org/xwiki/bin/view/SafetyCompetenciesChallenge/WebHome

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