

Using a pop-quiz approach to teach Indigenous health: engaging learners and addressing resistance

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Abstract

Educators in the health professions are persistently exploring practical and engaging methods to introduce students to Indigenous health, aiming to cultivate curiosity, humility, and an understanding of structural issues. Traditional didactic sessions frequently fall short in adequately equipping learners for the emotional and intellectual challenges posed by topics such as colonization, inequity, and Indigenous experiences within the healthcare system. To tackle these obstacles, an interactive "pop-quiz" format was created as an introductory educational tool within a broader Indigenous health curriculum. While it is structured like a quiz, the primary goal of this approach is to ignite discussion, reveal underlying assumptions, and encourage reflective engagement rather than merely evaluate knowledge. Based on over ten years of experience with undergraduate medical students, residents, and faculty, this Practical Advice Paper

illustrates how educators can implement a pop-quiz model to foster significant learning about Indigenous health. The paper details how to formulate questions that encourage reflection, create a safe learning environment, address learner resistance, and maintain a tone that balances seriousness with approachability. It provides recommendations for facilitating discussions, utilizing contextualized data, and wrapping up the session with organized self-reflection. The pop-quiz model is versatile and can be adapted to various teaching environments, proving to be an effective entry point for learners who may be unfamiliar with, apprehensive about, or resistant to Indigenous health topics. By anchoring the session in local contexts and adopting a relational facilitation approach, educators can develop initial learning experiences that invite students to engage more deeply with cultural safety, structural competency, and practices informed by reconciliation.

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Introduction.

Health professional educators continue to encounter difficulties in integrating Indigenous health content in ways that are engaging, reflective, and meaningful for learners who may have limited prior exposure to these topics.¹ Despite widespread acknowledgment of the significance of teaching Indigenous health,² educators often face challenges such as learner discomfort, defensiveness, or the belief that the material is secondary to clinical training. Traditional didactic methods often fall short in capturing the complexities of Indigenous

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health or fostering the environment necessary for learners to examine their own assumptions and knowledge gaps. Many learners come with incomplete or incorrect understandings of Indigenous histories and experiences, or with misconceptions influenced by broader societal narratives.³ In the absence of an approach that can nurture curiosity and reflection early in the curriculum, later content may seem overwhelming or disconnected from learners' perceived educational needs.

In response to these challenges, an introductory "pop-quiz" session was developed. Instead of evaluating learners, this session employs the familiar format of a multiple-choice quiz to encourage exploration, stimulate questions, and foster dialogue. Each question acts as a gateway into discussions regarding history, population health, social and structural determinants, and the lived experiences of Indigenous peoples.^{4,5} The format is designed to alleviate anxiety and establish a space where learners can start engaging with complex material without the fear of being judged or assessed. Over time, the pop-quiz has evolved into a fundamental element of a more extensive Indigenous health curriculum, providing a flexible, engaging, and conversation-driven approach to begin cultivating the reflective mindset necessary for deeper engagement with Indigenous health content.

This practical advice paper is based on extensive experience in conducting this session in various educational settings, providing actionable recommendations for educators interested in implementing a comparable method. The emphasis is placed on the pedagogical principles, facilitation techniques, and contextual factors that enable the pop-quiz model to be both flexible and effective.

Implementing the Pop-Quiz Approach.

While the session is designed as a quiz, its main purpose is to serve as a reflective and discussion-oriented educational tool. Initially, learners contemplate each multiple-choice question on their own, enabling them to privately address their own beliefs or doubts. Following this, the facilitator initiates a group discussion where learners can express their reasoning, respond to their peers' viewpoints, and examine how their beliefs correspond or differ. This method helps learners to understand that knowledge gaps are a normal part of the learning process, and that the educational setting is one where both vulnerability and curiosity are welcomed and promoted.

The effectiveness of the pop-quiz format is largely determined by the type of questions selected. Well-crafted questions emphasize themes that are crucial for comprehending Indigenous health, including the historical effects of colonization, current health

indicators for populations, patterns of inequality, and the stereotypes that persistently affect healthcare experiences.^{6,7} These questions are not intended to assess factual memory but rather to reveal the limitations of learners' existing knowledge and to prompt them to reflect on why certain misconceptions may be prevalent.⁸ When a learner chooses an incorrect answer based on a prevalent stereotype, the facilitator can take that opportunity to gently investigate the origins of that belief and how such assumptions could impact clinical interactions (see Table 1). This approach facilitates a seamless transition into conversations regarding the structural determinants of health and the wider context that shapes the experiences of Indigenous peoples within the healthcare system.⁹

The session is most effective when inquiries are based on local or regional data, historical contexts, and community experiences. Educators are encouraged to modify the questions set to suit the particular context of their teaching. For instance, variations in population demographics, life expectancy differences, or patterns of health service utilization may exist across provinces or territories; incorporating locally relevant information enhances both credibility and student engagement. Working in partnership with Indigenous communities ensures that the content is respectful, precise, and in harmony with community viewpoints.¹⁰ Examples of the questions we use are included in Table 1.

Facilitation Strategies.

Facilitation plays a crucial role in the effectiveness of the pop-quiz model. The tone should be light, welcoming, and rooted in a relational approach. Presenting the session as a joint exploration, instead of an evaluation, aids in alleviating defensiveness and promotes open participation among learners. Humor can be particularly impactful, especially when referencing familiar game-show elements or shared learning experiences; however, it should be employed with care, ensuring it does not come at the expense of Indigenous peoples or undermine the seriousness of the topics being addressed.¹¹ The use of humor should serve to make the format more accessible, not diminish the gravity of the content.

A facilitator must also be ready to address discomfort or resistance, which may occur when

Table 1: Examples of quiz questions on Indigenous health

Question	Facilitation notes	Points of resistance from learners
What is the average disparity in life expectancy between First Nation and non-First Nation Albertans?	<ul style="list-style-type: none"> point out new, updated data that suggests the gap is larger than ever, talk about how we are not seeing a narrowing of the gap, and ask why there are a host of inequalities that lead to this gap, and the gap is actually getting worse which reflects the healthcare system not doing an adequate job 	<ul style="list-style-type: none"> learners may have biases around avoidance of care and questions about external causes to life expectancy learners' continuation of blaming Indigenous peoples for these causes, rather than seeing this as upstream outcomes
What is the leading cause of mortality among Indigenous populations in Canada?	<ul style="list-style-type: none"> most learners expect cancer or cardiovascular issues so the facilitator should be ready to provide information to explore those perceptions learners may also say endocrine issues if they have a sense of the prevalence of diabetes across First Nations peoples ask learners why they don't have this knowledge or why they presumed certain things about Canadian society and Indigenous peoples 	<ul style="list-style-type: none"> learners may not realize that from a community and population perspective, the location of where people live and work and play influences their health learners tend to criticize the nature of the evidence and challenge the data or the analyses used
Of the following community factors, which is associated with the greatest reduction in suicide rates?	<ul style="list-style-type: none"> emphasize self-determination and link to UNDRIP highlight that epidemiology is only as helpful as the indicators we use not all Indigenous communities are the same in their capacities or health status, we need to understand the strengths in each community 	<ul style="list-style-type: none"> learners may not recognise that even in personal and individual crises, social structures are at play and influence outcomes explore the concepts of sovereignty, that communities know what they need to be healthy, paternalistic attitudes learners feel that this may be specific to suicide but it is intended to be just one example of the truth across various health issues

learners confront information that challenges their preexisting beliefs. Some individuals may question the relevance of specific inquiries to clinical practice or may seek to downplay the structural and historical factors that influence Indigenous health outcomes. Instead of perceiving resistance as a hindrance, facilitators can regard it as a significant indicator of areas where learners require additional support. Encouraging learners to express the reasoning behind their assumptions often uncovers deeper thought patterns influenced by societal narratives or educational deficiencies. This opens up opportunities for discussions regarding structural determinants, colonial history, and the necessity of comprehending the context of population health.¹² Facilitators should respond with empathy and clarity, assisting learners in navigating cognitive

dissonance towards a more nuanced understanding.

The relational dimension of the facilitation also matters. Facilitators experienced in Indigenous health, regardless of being Indigenous or non-Indigenous, can utilize their personal learning journeys or clinical experiences to assist learners in forming emotional and intellectual connections with the content. Co-facilitation can further enhance this process by combining complementary strengths. For example, pairing an Indigenous co-facilitator with a non-Indigenous one may enable one facilitator to share lived experiences, while the other demonstrates a process of learning (and unlearning) that may resonate more effectively with non-Indigenous learners. Additionally, co-facilitation helps to distribute the emotional labor often

associated with teaching challenging material, thereby alleviating the burden on Indigenous educators who might otherwise encounter harmful assumptions or remarks. Collaborating in preparation, discussing shared messaging, and setting boundaries before the session are all crucial strategies for ensuring a cohesive and safe learning environment.

Brevity is another key element. While the subjects introduced in each question may prompt lengthy discussions, the session achieves its highest effectiveness when confined to eight to 10 questions within a timeframe of 45 to 60 minutes. This format guarantees that participants stay engaged and prevents the session turning into a prolonged lecture. Instructors should strive to maintain succinct explanations and permit the bulk of the session to be influenced by the reflections and inquiries of the learners. The objective is to foster curiosity and pave the way for additional learning, instead of attempting to comprehensively cover all pertinent topics.

Concluding the Session.

The session concludes with a self-reflective debrief that prompts learners to contemplate not only what they have learned but also the process through which they reached their conclusions. Learners are encouraged to think about the questions they answered incorrectly, the assumptions that guided those decisions, and the possible implications of those assumptions in a clinical context. By presenting aggregate comparisons from earlier sessions, such as average scores for medical learners, faculty members, or Indigenous health service providers, this approach can help normalize uncertainty and illustrate that knowledge gaps are prevalent throughout the profession. Since scores are never collected or assessed, learners can participate in this reflective process without the fear of being judged by educators or peers.

The reflective conclusion is crucial for converting the quiz from a mere engaging activity into a significant learning experience. It assists learners in

recognizing how their understanding has been influenced by incomplete or stereotypical narratives, and it equips them for more profound engagement with Indigenous health topics later in the curriculum. Numerous learners exit the session pondering why they were previously unaware of essential historical or health-related information, as well as the responsibilities they bear as future practitioners in tackling inequities. This change in viewpoint is frequently the most important educational result of the session.

Lessons Learned and Recommendations.

Years of experience in delivering this session across various learning environments have highlighted its effectiveness as an introductory tool that facilitates transformative learning. The pop-quiz format strikes a unique balance of safety, engagement, and critical reflection. Learners feel welcomed rather than challenged, and this initial approach enables them to tackle more complex content with increased openness in future sessions. The versatility of the format has also been a significant advantage; it is applicable in small seminars, large lecture halls, and online settings with equal success. The pop-quiz can also be delivered virtually with minimal edits, as all of the questions in the set and the facilitation strategies may be seamlessly integrated into online platforms.

The most consistent takeaway has been the significance of a relational, reflective, and contextually grounded facilitation style. When educators engage in the session with authenticity, humility, and a strong commitment to respectful learning, the pop-quiz can foster meaningful changes in learners' understanding. This model is not designed to serve as a comprehensive curriculum but rather as an early invitation into a more extensive learning journey. When utilized in this manner, the quiz has demonstrated its potential as a powerful catalyst for engagement with Indigenous health, cultural safety, and reconciliation-informed clinical practice.

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