Commentary: Posing Questions to Support and Challenge -- A Guide for Mentoring Staff

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Commentary: Posing Questions to Support and Challenge -- A Guide for Mentoring Staff

Staff development educators seeking to mentor health care practitioners towards thinking more critically may integrate a questioning approach into their teaching. However, posing questions that both support and challenge learners is an intentional process. This article provides an overview of the contextual considerations, dynamics and mechanics that educators need to understand in order to pose high level questions that invite learners to engage in reflection, problem solving and evidence informed practice. The approaches are framed from a constructivist theoretical perspective, a mentoring model of instruction and Socratic dialogue. The suggestions are practical mentoring strategies that can be readily integrated into everyday interactions with staff members. The suggestions are summarized into a succinct one-page guide.

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ABSTRACT
Staff development educators seeking to mentor health care practitioners towards thinking more critically may integrate a questioning approach into their teaching. However, posing questions that both support and challenge learners is an intentional process. This article provides an overview of the contextual considerations, dynamics, and mechanics that educators need to understand in order to pose high level questions that invite learners to engage in reflection, problem solving, and evidence-informed practice. The approaches are framed from a constructivist theoretical perspective, a mentoring model of instruction and Socratic dialogue. The suggestions are practical mentoring strategies that can be readily integrated into everyday interactions with staff members. The suggestions are summarized into a succinct one-page guide.

INTRODUCTION
“No one can teach, if by teaching we mean the transmission of knowledge, in any mechanical fashion, from one person to another. The most that can be done is that one person who is more knowledgeable than another can, by asking a series of questions, stimulate the other to think, and so cause him to learn for himself.” —Socrates, 5th century BC.

It is widely acknowledged that educators who pose thought provoking questions can invite learners to view the world in new ways. This article provides a guide for healthcare leaders seeking to mentor practitioners towards thinking more critically, by explaining how to pose questions that support and challenge. The guide is framed from a constructivist conceptual perspective, a mentoring model of instruction and Socratic dialogue. The suggestions are organized according to contextual considerations, the dynamics of questioning and the mechanics of questioning. Figure 1 (the guide) is a succinct summary of the suggestions.

THEORETICAL BACKDROP

Constructivist Thinking
Constructivist thinking suggests that learners bring valuable existing knowledge to any learning experience, and that the role of the teacher is to build on that existing knowledge by providing personally meaningful activities and interactions with informed others. A constructivist perspective emphasizes the importance of promoting learner self-direction and independence. In staff development and workplace settings where professional leaders are involved with the education and mentorship of practitioner learners over extended periods of time, integrating skillful questioning approaches can help clarify both what learners already know as well as what new areas of knowledge could be relevant. Viewing questioning through a constructivist lens, the process of posing questions can be construed as an essential tool for engaging practitioners and supporting them towards success in their own personal learning journey.

Mentoring model of instruction
A mentoring model of instruction, which aligns with constructivist thinking, also integrates intentional questioning into relationships between educators or mentors and learners or mentees. Mentoring is defined as a meaningful reciprocal relationship between two
people, often with one more experienced and one less experienced individual. A mentoring model of instruction is usually non-evaluative and is not defined by time limits.

In his seminal book, *Mentor: Guiding the Journey of Adult Learners*, Daloz explained that educators can best mentor learners by providing both support and challenge. When learners feel supported and trust their mentor educators, they can begin to feel more open to taking on new perspectives and to the possibility of making mistakes. In turn, mentors can introduce the kinds of high level and even disorienting questions that trigger new insights and ways of constructing knowledge. Questioning grounded in a mentoring instructional model can set the stage for thinking differently and more critically.

Critical thinking involves analyzing, assessing and re-constructing. Individuals who think critically seek out relevant information and make judgements, interpretations and inferences based on evidence and context. Socrates was one of the first educators to espouse the use of questioning methods by teachers to require learners to think deeply, challenge their own assumptions, and gather evidence before accepting new ideas.

**Socratic dialogue**

Socratic dialogue, also known as Socratic questioning or the Socratic method of teaching, aligns well with education grounded in constructivist thinking and framed from a mentoring model of instruction. Socratic questioning challenges learners to think deeply and critically about concepts they often take for granted and is especially effective when addressing issues with ethical or moral dilemmas. As practitioners respond and reflect during Socratic dialogue with staff development mentors, they are challenged to make comparisons, give evidence for cause-and-effect relationships, and provide suggestions for why an issue or practice might be realistic or unrealistic. While “right or correct answers” are not expected, Socratic questions draw out learners’ beliefs and challenge them to consider ideas from more than one point of view.

However, despite the merit of questioning as a fitting tool for constructivist educators seeking to mentor learners, existing evidence indicates that many teachers are not always posing the kinds of questions that do promote critical thinking. These researchers consistently recommend training as a means to improve questioning practice. Much of the existing evidence regarding intentional questioning discusses pre-service learning experiences, leaving a gap in our understanding of staff development and continuing education approaches that are relevant to learners in practice environments. This guide, with its emphasis on practical everyday suggestions related to contextual considerations, dynamics and mechanics of questioning begins to address that gap.

**POsing QUESTIONS INTENTIONALLY**

**Contextual Considerations**

Questioning, as a form of inquiry, invites an exchange and sharing of experiences. However, without careful consideration of context, questioning can disengage and de-motivate learners. Poor questioning can leave learners feeling stressed, anxious, intimidated, embarrassed, and fearful they will give incorrect answers, and they can be left frustrated by over questioning.

A safe, mutually trusting, and respectful emotional environment, where learners can risk making mistakes and responding with incorrect answers, is essential. In workplace settings, the process of establishing and maintaining trust among colleagues can be a fragile and emotionally charged phenomenon. As health care educators in staff development and continuing education interact with practitioner learners over time, poor questioning approaches can generate persistent and unnecessary negative feelings.

In addition to the aforementioned emotional considerations, the physical context or where questioning occurs also impacts the process. In fast paced clinical settings, educators are often engaged on the spot for advice, and do not have time to plan questions directed at specific learning objectives. Typical venues of communication include staff meetings, daily unit based huddles, one to one consultation, rounds, and spurs of the moment conversations amidst ongoing care. The tendency in such instances can be to provide answers rather than ask questions. However, doing so can limit the discussion and opportunity for problem solving, exploration of rationale, consideration of alternatives, and the self-discovery so important for enhancing critical thinking.

It is important to note that clinical site educators in staff development and continuing education often have duties and responsibilities that extend well beyond teaching. Many straddle management and other leadership positions. While the teaching role may take priority for pre-service educators, those in in-service settings may be juggling responsibilities associated with several different roles. When these additional responsibilities include staff performance reviews, questioning can be construed as an evaluative activity. In turn, the overlap of management responsibilities can exert significant influence on how questioning approaches are perceived.
One strategy for establishing trust that staff development educators can implement is to explain that a questioning approach will be used. The explanation can be further developed by adding that the questioning approach stems from constructivist thinking that honors what practitioners already know and from a mentoring model of instruction that seeks to support and challenge. Even when educators also function in other management and leadership roles, by knowing their intentions, staff are less likely to feel interrogated and tested. Rather they can be aware that questions posed were meant to help mentor their capacity for critical thinking and to trigger new insights.

Another strategy is to ensure that each question asked serves a purpose. Kost and Chen identify purposeful questions as ones that have a specific goal, rather than bombarding staff with questions that can cause intimidation and do not stimulate critical thinking. They also suggest that questions should be interpretive, with no right answer, therefore, allowing exploration of prior knowledge and stimulating reflection. Ensuring that staff are informed of how questions will be used and that questions are purposeful can help facilitate trustful mentoring relationships and Socratic dialogue.

A further strategy is to listen actively as staff are responding and discussing their ideas. This includes refraining from interrupting and expressing respect for different perspectives. Educators questioning from a mentoring model of instruction should not be thinking ahead to their next question or trying to formulate a solution that would “fix” the problem. Allow sufficient time for responding. Encourage responders to reply in some way to each question asked.

A final contextual consideration is to assess the extent and quality of the relationship between educator and learner. Similarly, learners’ levels of experience must also be factored in. Questioning may not be relevant in all stages of relationships and situations. Determining that a questioning approach is the most appropriate tool for the desired outcomes is just as important as asking the right questions. Staff who have low self-confidence or are highly skeptical may not initially respond favorably to a questioning approach. In these situations, educators may need to spend more time nurturing a trustful mentoring relationship and reserve the use of questioning until later. On the other hand, however, skillfully posing thoughtful questions can contribute to positive trusting relationships that can challenge learners in non-threatening ways.

Dynamics of Questioning

**Wait time**

The dynamics of questioning refers to the variety of techniques educators implement to impact the questioning process. Wait time is a significant dynamic. Wait time is the time an educator waits, after the question is posed, for a response before moving on or clarifying. Evidence suggests that educators do not allow sufficient wait time, therefore limiting opportunity to stimulate critical thinking. A wait time of between 3-6 seconds, depending on the level of question asked, is encouraged to allow adequate time for learners to formulate a response.

For in-service educators in leadership positions who are used to managing problems, intentionally using adequate wait time can avert the tendency to jump in and offer a solution. Wait time can also help when responses are initially not forthcoming or are vague. Further, after practitioner learners offer their responses, wait time can communicate a respectful pause that invites further discussion. Wait time is important when posing questions during both individual and group discussions.

**Clarifying**

When adequate wait time is offered and responses still remain incomplete, clarifying or probing further with lower level questions may be needed. Paul and Elder encourage questions that seek relevant information, probe for rationale, and consider alternative and opposing viewpoints as a way of sustaining the questioning process.

Depending on the level of experience of staff, questions may need to be more pointed. For example, with a novice practitioner an educator might ask: “Do you think that ___ could have been a contributing factor?” Whereas, with a more experienced practitioner an educator may ask: “What are potential contributing factors to this issue?” However, in all situations educators should resist fixing staff problems by providing answers. When educators integrate questioning behaviors effectively, novice staff experience how the process can lead to critical reflection and challenging the status quo.

**Phrasing**

Appropriate phrasing of questions is another essential dynamic of questioning. Use of positive language and tone of voice can impact how staff interpret the use of a questioning approach. It is important that educators not communicate skepticism in their questions. Consider the difference between “why would you do that?” (spoken with a judging tone and furrowed brow), versus “can
you tell me some of the reasons why you chose that course of action?” (asked with an inquiring gaze and soft tone). Maintaining eye contact, open body language, and nodding frequently communicates interest and encouragement non-verbally.24

Mechanics of Questioning

Levels of questions
The mechanics of questioning refers to the levels and types of questions educators can pose.21 The primary focus of existing research on questioning is the cognitive level at which a question is asked. Benjamin Bloom’s classic taxonomy of the cognitive domain of learning has been used to map questioning levels.24, 34-36 Bloom identified six hierarchical levels of learning.37 The lowest level of learning is knowledge or simply recalling and memorizing facts. The remaining five levels involve a progressively deeper and more complex understanding of concepts. They are comprehension, application, analysis, synthesis, and finally, evaluation. It is widely accepted that questions posed at a higher cognitive level are more likely to stimulate critical thinking. However, teachers implementing a questioning approach may frequently be doing so at lower cognitive levels.19, 20, 21, 22, 23

Boswell outlines the outcomes of questions for each cognitive level.27 At the knowledge level, questions are closed-ended and seek descriptive information. Knowledge questions are aimed at obtaining an explanation and comprehension questions explore the meaning of a single concept. At the application level, questions require responses that link information to a particular case or situation and to find solutions through problem solving. At the analysis level, questions expect responses that differentiate among multiple factors that probe for supporting evidence, that apply new information, and that challenge assumptions and rationale. At the synthesis level, questions call for the creation of new ideas, multiple perspectives, and the development of a plan of action. Finally, questions at the evaluative level demand responses that stimulate assessment of information in order to substantiate judgement and allow for critical decision making.27

Posing questions intentionally involves sequencing the levels of questions, with a gradual progression from describing facts to making sound decisions.24, 27 Thus, educators often begin by posing lower level questions to gather relevant information. Incrementally, higher level questions are incorporated to stimulate critical thinking. Constructivist grounded in a mentoring model of instruction and Socratic dialogue integrate learners’ prior experience, invite additional perspectives, explore assumptions, hypothesize potential solutions, and eventually lead learners towards making their own critical decisions. Through this sequencing of questions, learners become involved in solving problems through reflection, integrating evidence and thinking critically.27

Types of questions
The types of questions educators ask also impact the dynamics of questioning. For example, convergent or closed ended questions, such as those prefaced with: “Do you think …;” “Should …;” “Would …;” “Are …” and “Is …” usually require only yes or no responses.38 Learners can view convergent questions as having answers they are expected to be familiar with and that they can anticipate. They usually have one right answer. On the other hand, divergent or open ended questions, which include “who,” “what,” “where,” “when,” “how,” or “why” invite reflection and more detailed responses.38 These questions have many possible answers. Limiting use of the word “why” is recommended because of its frequent association with accusatory statements.39

Other types of useful questions are those that probe for further information.27 Probing questions are important to ensure mutual understanding. Examples include: “What do you mean by that?” or “When you refer to __, do you mean __ or ___?” Probing questions are essential to challenge assumptions, uncover faulty logic, and evaluate reasoning to assist in creating new meaning. Examples of probing questions include: “What is your reasoning behind ___?”, “What are you assuming by ___?”, “What would the impact of ___ be?”, and “What is the likelihood of ___ occurring?”.27

Hypothetical and declarative questions can also be useful. Hypothetical questions challenge practitioner learners to consider alternatives, such as: “What would have happened if you approached the situation form ___ perspective?”27 Declarative questions, such as: “Tell me more about that” can draw out those who do not respond readily to other types of questions.40

A GUIDE FOR POSING QUESTIONS THAT SUPPORT AND CHALLENGE
Next, we present a succinct two-part guide (Figure 1) for posing questions that support and challenge. Part One identifies the questioning essentials educator mentors can use to ground their thinking. Part Two illustrates intentional questioning by noting specific questioning examples. The suggestions in the guide integrate the contextual considerations, dynamics of questioning and mechanics of questioning explained in the preceding sections. They have all been framed from a theoretical backdrop of constructivist thinking, a mentoring model of instruction and Socratic dialogue.
### Figure 1. A Guide for Posing Questions that Support and Challenge

#### Part One: Questioning Essentials

<table>
<thead>
<tr>
<th>Questioning Do’s</th>
<th>Questioning Do Not’s</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contextual Considerations</strong></td>
<td></td>
</tr>
<tr>
<td>Is this the right approach to use currently?</td>
<td>✔ Do determine staff readiness to accept a challenge</td>
</tr>
<tr>
<td></td>
<td>✔ Do evaluate the relationship of trust</td>
</tr>
<tr>
<td><strong>How can I ensure a non-threatening approach?</strong></td>
<td></td>
</tr>
<tr>
<td>✔ Do explain the use of questioning</td>
<td></td>
</tr>
<tr>
<td>✔ Do ensure each question has a specific purpose</td>
<td></td>
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<tr>
<td>✔ Do ask one question at a time</td>
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<tr>
<td>✔ Do wait for and expect a response</td>
<td></td>
</tr>
<tr>
<td>✔ Do listen actively</td>
<td></td>
</tr>
<tr>
<td><strong>Dynamics</strong></td>
<td></td>
</tr>
<tr>
<td>Is my technique effective?</td>
<td></td>
</tr>
<tr>
<td>✔ Do broaden or focus the questions in line with staff experience</td>
<td></td>
</tr>
<tr>
<td>✔ Do provide enough time for staff to formulate a response (2-5 seconds)</td>
<td></td>
</tr>
<tr>
<td>✔ Do respond to a staff’s question with another question or use storytelling to provide a related experience</td>
<td></td>
</tr>
<tr>
<td>✔ Do keep eye contact, use head nodding, and maintain an open posture</td>
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<tr>
<td>✔ Do periodically summarize to clarify mutual understanding</td>
<td></td>
</tr>
<tr>
<td>✔ Do provide positive reinforcement of perspectives and probe further as needed to expand thinking</td>
<td></td>
</tr>
<tr>
<td>✔ Do phrase questions using positive language</td>
<td></td>
</tr>
<tr>
<td><strong>Mechanics</strong></td>
<td></td>
</tr>
<tr>
<td>Am I asking the right questions?</td>
<td></td>
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<tr>
<td>✔ Do start with low level questions to gather information</td>
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<tr>
<td>✔ Do vary the level of question throughout the discussion</td>
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<tr>
<td>✔ Do gradually progress toward more high level questions that probe reasoning, challenge assumptions, and stimulate reflection in problem solving</td>
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Figure 1. Part 1.
## Part Two: Questioning Examples

<table>
<thead>
<tr>
<th>Question Level</th>
<th>Cognitive Domain</th>
<th>Question Purpose</th>
<th>Sample Questions</th>
<th>Helpful Tips for Questioning Technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Level</td>
<td>Knowledge</td>
<td>Gather information; describe the situation</td>
<td>Can you tell me about the situation? What happened?</td>
<td>Make sure to clarify mutual understanding; Do you mean _?</td>
</tr>
<tr>
<td></td>
<td>Comprehension</td>
<td>Establish understanding; explanation of problem(s)</td>
<td>Can you tell me why you think this happened? Can you give me an example? Based on these facts, what do you think is the main problem?</td>
<td>Consider interposing a high level question here to probe assumptions</td>
</tr>
<tr>
<td></td>
<td>Application</td>
<td>Build a solution</td>
<td>Has something similar happened before? What did you do? What was the outcome? What do you think is the best approach to addressing this problem? What would the alternatives be?</td>
<td>Remember to direct questions to learner level of experiences; It may be necessary to provide suggestions for novice staff; Do you think _ might be an alternative?</td>
</tr>
<tr>
<td></td>
<td>Analysis</td>
<td>Explore reasoning &amp; probe rationales</td>
<td>Would your previous approach work? What is the same/different? What are your reasons for choosing A rather than B? Who benefits the most from this solution? How would this impact the patient/family? The team? Etc. What would another person of the same profession say? A different profession?</td>
<td>Be mindful of body language, tone of voice and words chosen; Limit the use of &quot;why&quot;; Be careful not to over-probe, vary probing with other types/levels of questions</td>
</tr>
<tr>
<td>High Level</td>
<td>Synthesis</td>
<td>Create a plan</td>
<td>What is the best way to proceed? What would the first step be? Next steps? Who needs to be involved?</td>
<td>Remember not to provide answers; Ask follow-up questions that highlight flaws in thinking; Are you assuming _? What is missing? Would it be different if _?</td>
</tr>
<tr>
<td></td>
<td>Evaluation</td>
<td>Evidence based decision making</td>
<td>Is this the best course of action? What evidence supports this plan? What are the risks/benefits? For whom? What are the limitations? How will you know if you have achieved the desired outcomes?</td>
<td>In closing expand thinking further by asking: What are some unanswered questions? Encourage action &amp; build trust: suggest a follow-up discussion or email to let you know the outcome</td>
</tr>
</tbody>
</table>

**Figure 1, Part 1 and Part 2.** A Guide for Posing Questions that Support and Challenge can be printed on one double-sided page and posted in clinical practice areas where educators and staff members congregate and interact with one another. For example, in patient care stations, offices and team meeting rooms. Making the guide visible can help normalize the process of asking questions as a mentoring approach and may even help engage practitioners in initiating their own questioning activities.
CONCLUSION
The one-page guide for posing questions that support and challenge presented in Figure 1 was designed for those who educate in staff development, workplace, and continuing education settings. The suggestions, framed from constructivist thinking, a mentoring model of instruction and Socratic dialogue are particularly relevant for educators working with practitioners over extended periods of time. Intentional questioning approaches that are skilfully implemented can promote critical thinking and invite practitioner learners to risk looking at the world in new and different ways.

Intentional questioning requires educators to consider context, dynamics, and mechanics. Contextual considerations include establishing trusting relationships where making mistakes or not having right answers is acceptable. Taking care not to solve or “fix” problems is another important contextual consideration. The dynamics of questioning include allowing 3-6 seconds wait time after posing questions, expecting replies for any question asked, clarifying and gathering additional information, and phrasing with positive affirming language. The mechanics of questioning include attending to both the levels and types of questions. To stimulate critical thinking, problem solving, and evidence informed practice, questions should be geared to a high enough cognitive level that learners must analyze, synthesize, and evaluate the topics under discussion. To invite reflection, the types of questions educator mentors pose should be open ended and probing.

The process of mentoring staff by posing questions that support and challenge requires practice and takes time to develop. Some approaches will be more effective than others. Seeking feedback from learners will provide valuable guidance. Certainly, learning more about skillful questioning is time well spent for educators seeking to mentor health care practitioners.

REFERENCES

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