Nature of Questioning in the Classroom

Teachers are always concerned to ensure children are intellectually challenged, make good progress in learning and do not waste their time at school. Questioning emerges as an effective strategy for challenging students intellectually, making them think independently, reflecting critically and pondering over the multiple possible angles of an issue. Arguably, questioning is the most timeless and fundamental stratagem employed by teachers from Confucius to Aristotle to Descartes to provoke learners. In the past 20 years, the role of the essential question has risen as a curricular compass, setting the pathway for the learner, due in no small measure to the power of models such as Understanding by Design. Questioning in a classroom reflects a concern for responsiveness to the inner dynamics of each class, both as a collective body and as a group of distinct individuals. In philosophical dialogue the interests and concerns of each community of enquiry will determine its course and the degree to which the community is able to evolve as a reflective group. Success often depends on spontaneity in the sense of seizing that which is alive in discussion. Enquiry lessons need to remain responsive to pupil interest, local conditions and events. Questions must be planned well. The planning of enquiry can link with, and be part of, a formal curriculum. In planning for encouraging collaborative enquiry in the classroom teachers have to take children's age and experience into account. Whatever is being learned, a great deal depends on how much previous experience learners have had. In the body of work known as Understanding by Design (McTighe & Wiggins, 2004; Wiggins & McTighe, 2012), it is proposed that education should strive to develop and deepen students' understanding of important ideas and processes so that they can transfer their learning within and outside school. Accordingly, it is recommended that content (related goals) be unpacked to identify long-term transfer goals and desired understandings. Part of this unpacking involves the development of associated essential questions. In other words, questions can be used to effectively frame our key learning goals. Expert knowledge is the result of inquiry, argument, and difference of opinion; the best questions point to hard-won big ideas that we want learners to come to understand. The questions thus serve as doorways or lenses through which learners can better see and explore the key concepts, themes, theories, issues, and problems that reside within the content. It is also through the process of actively "interrogating" the content using provocative questions that students strengthen and deepen their understanding. For instance, a regular consideration of the question "How are stories from different places and times about me?" can lead students to the big ideas that great literature explores—the universal themes of the human condition underneath the more obvious peculiarities of personality or culture—and

thus can help us gain insight into our own experiences. Similarly, the question "To what extent can people accurately predict the future?" serves as a launch pad for examining big ideas in statistics and science, such as sampling variables, predictive validity, degrees of confidence, and correlation versus causality.

Some questions are deemed Essential by scholars like Wiggins. Questions that meet all or most of the following criteria qualify as essential. These are questions that are not answerable with finality in a single lesson or a brief sentence—and that's the point. Their aim is to stimulate thought, to provoke inquiry, and to spark more questions, including thoughtful student questions, not just pat answers. They are provocative and generative. By tackling such questions, learners are engaged in uncovering the depth and richness of a topic that might otherwise be obscured by simply covering it. Essential questions reflect the key inquiries within a discipline. Such questions point to the big ideas of a subject and to the frontiers of technical knowledge. Such questions needed for effective transaction of a lesson in the class have the following characteristics:

1. Is open-ended; that is, it typically will not have a single, final, and correct answer.
2. Is thought-provoking and intellectually engaging, often sparking discussion and debate.
3. Calls for higher-order thinking, such as analysis, inference, evaluation, prediction. It cannot be effectively answered by recall alone.
4. Points toward important, transferable ideas within (and sometimes across) disciplines.
5. Raises additional questions and sparks further inquiry.
6. Requires support and justification, not just an answer.
7. Recurs over time; that is, the question can and should be revisited again and again.

Some examples of subject-specific essential questions discussed by McTighe & Wiggins(2012) are as follows:

Essential Questions in History and Social Studies

- Whose "story" is this?
- How can we know what really happened in the past?
- How should governments balance the rights of individuals with the common good?
    - Should _____ (e.g., immigration, media expression) be restricted or regulated? When? Who decides?
- Why do people move?
- Why is that there? (geography)
- What is worth fighting for?

Essential Questions in Mathematics

- When and why should we estimate?
- Is there a pattern?
- How does what we measure influence how we measure? How does how we measure influence what we measure (or don't measure)?
- What do good problem solvers do, especially when they get stuck?
- How accurate (precise) does this solution need to be?
- What are the limits of this math model and of mathematical modelling in general?

Essential Questions in Language Arts

- What do good readers do, especially when they don't comprehend a text?
- How does what I am reading influence how I should read it?
- Why am I writing? For whom?
- How do effective writers hook and hold their readers?
- What is the relationship between fiction and truth?
- How are stories from other places and times about me?

Essential Questions in Science

- What makes objects move the way they do?
- How are structure and function related in living things?
- Is aging a disease?
- Why and how do scientific theories change?
- How can we best measure what we cannot directly see?
- How do we decide what to believe about a scientific claim?

Essential Questions in the Arts

- What can artworks tell us about a culture or society?
- What influences creative expression?
- To what extent do artists have a responsibility to their audiences?
- Do audiences have any responsibility to artists?

- What's the difference between a thoughtful and a thoughtless critique?
- If practice makes perfect, what makes perfect practice?

Essential Questions in World Languages

- What should I do in my head when trying to learn a language?
- How can I express myself when I don't know all the words (of a target language)?
- What am I afraid of in hesitating to speak this language? How can I overcome my hesitancy?
- How do native speakers differ, if at all, from fluent foreigners? How can I sound more like a native speaker?
- How much cultural understanding is required to become competent in using a language?
- How can I explore and describe cultures without stereotyping them?

Question can be considered essential when it helps students make sense of seemingly isolated facts and skills or important but abstract ideas and strategies—findings that may be understood by experts but not yet grasped or seen as valuable by the learner. The importance of the question depends upon why we pose it, how we intend students to tackle it, and what we expect for the associated learning activities and assessments. Do we envision an open, in-depth exploration, including debate, of complex issues, or do we plan to simply lead the students to a prescribed answer? Do we hope that our questions will spark students to raise their own questions about a text, or do we expect a conventional interpretation? In other words, if we look only at the wording of a question out of context, we cannot tell whether the question is or is not essential. Consider the question "What is a story?" Clearly, if we pose this question with the intent of having students give a textbook answer ("a story contains a plot, characters, setting, and action"), then the question (as pursued) is not essential in terms of our criteria. However, if the question is being asked to initially elicit well-known story elements but then overturn that conventional definition through a study of postmodern novels that lack one or more of these elements, then it functions in an "essential" manner. The best questions are essentially alive. People ask, discuss, and debate them outside school. They arise naturally in discussion, and they open up thinking and possibilities—for novices and experts alike. They signal that inquisitiveness and open-mindedness are fundamental habits of mind and characteristic of lifelong learners. In a more practical sense, a question is alive in a subject if we really engage with it, if it seems genuine and relevant to us, and if it helps us gain a more systematic and deep understanding of what we are learning. However a teacher must guard against pushing students to expected answers. teacher may pose an intriguing and seemingly open question yet expect a pat answer. In the worst cases, instructors display intellectual dishonesty when they ask for

students' opinions on controversial issues but actually seek or highlight responses that they deem politically or morally correct.