

Learning outcomes to enhance students' understanding of research: A framework from McGill University's Inquiry Network

This table provides a set of three general learning outcomes that can be integrated into courses to enhance students' understanding of research. To illustrate the range of ways in which these outcomes can be tailored to particular courses, each general outcome is followed by examples of more specific outcomes. To read more about these learning outcomes and see examples of how they have been used by members of the Inquiry Network at McGill, please view the Inquiry Network Report "Using coursework to enhance students' understanding of research/scholarship" at: <http://www.mcgill.ca/tls/projects/nexus>.

1. Students develop an awareness that knowledge is dynamic, not static.
<ul style="list-style-type: none">a. Remember the facts that are part of the established consensus in a field and understand that consensus is still evolving.b. Identify patterns/consistencies in the knowledge base of a subject area or discipline.c. Make connections between concepts within a subject area or discipline.d. Tolerate uncertainty and accept that there is much that we don't know.e. Analyze purported improvements in a subject area or discipline and evaluate their worth.f. Be aware that there are ethical dimensions to both the production and representation of existing knowledge and the generation of new knowledge.g. Recognize the relationship between knowledge and cultural frameworks.
2. Students develop skills to gather, organize, analyze, interpret, and evaluate data and source material.
<ul style="list-style-type: none">a. Become aware of the basic processes of knowledge production and the conventions that govern research in a given subject area or discipline.b. Pose well-formulated questions, develop viable thesis statements/hypotheses, and generate informed and well-supported arguments.c. Locate appropriate resources and literature relevant to the subject area or discipline.d. Develop observational skills.e. Develop psychomotor skills (e.g., operating equipment).f. Develop critical thinking and questioning skills.g. Develop teamwork skills.h. Perform tasks specific to the subject area or discipline.i. Develop skills in critical reading of scholarly and non-scholarly publications, including identifying false premises and uncovering implicit assumptions.j. Develop skills in ethical research practices.k. Replicate aspects of existing research with increasing levels of autonomy.l. Conduct original research.
3. Students use discussion and writing to develop and communicate their understanding of a research topic/subject area/discipline.
<ul style="list-style-type: none">a. Use writing to explore and think about a research topic, subject area or discipline: writing to learn, not merely to record.b. Develop writing skills to report on research following discipline-specific conventions.c. Collaborate with peers, share ideas, and exchange feedback to advance understanding of the subject area.d. Use writing to communicate ideas about research to specialist and non-specialist audiences.

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