

I. Developing and Implementing a Research Plan: Research Process**A. Development of Questions**

- How is the topic relevant – historically and/or currently?
- What are the parameters of the study?
- How can the student broaden or narrow the study topic if necessary?
- Are there adequate resources for the topic? What researchers or institutions are identified with the topic?
- How does the student use creative thinking and problem solving skills to generate questions about the topic?
- What are the differences between sophisticated, complex, and/or basic questions?

I. Developing and Implementing a Research Plan: Research Process**B. Research Methodology**

- What does the student know about discipline specific research? What additional background does he/she need?
- Does the student identify and discuss the use of professional tools and methods?
- In what ways does the student hypothesize what the study might yield?
- Does the student describe the product that might be developed and its relevance to the field?
- Are experts in the field available to the student in the community or through the Internet?
- Has the student developed a plan for analyzing issues, problems, controversies, or dilemmas that may arise?
- What are the differences between advanced, standard, and/or basic methodologies?

I. Developing and Implementing a Research Plan: Research Process**C. Sources of Information**

- What sources of information does the student have access to? What additional sources are needed?
- Is the source relevant to the research questions? In what ways?
- Does the student use a variety of resources including electronic, experts, library, community, colleges/universities, databases, journals, etc.?
- How does the student select primary and secondary sources as appropriate for the nature of the research?
- How does the student determine appropriate use of materials and resources to support research?
- How does the student judge reliability of resources and make decisions about accuracy and usefulness of information?
- Does the bibliography provide links to other sources?

Source: Many of the questions are from the "Suggested Scaffolding of Research Skills" document, *G/T Teacher Toolkit*

I. Developing and Implementing a Research Plan: Research Process**D. Collection of Data**

- Does the student have a systematic plan to keep track of findings?
- What techniques does the student use to locate information within the source?
- How does the student record notes? How does the student record sources of information?
- Does the student disregard extraneous information and summarize main points?
- How does the student review and evaluate information and data collected?
- Does the student sort information into categories that relate to the research questions(s)?
- Does the student identify more sources of information, if needed?

I. Developing and Implementing a Research Plan: Research Process**E. Analysis and Interpretation of Data**

- Would this information be helpful to someone who is unfamiliar with the topic?
- Does the student display a general understanding of the topic? How does the student predict, draw conclusions, and evaluate new information?
- In what ways does the student provide an in-depth view of the topic? How does the student use the dimensions of depth and complexity to analyze and interpret data?
- What is the difference between in-depth and conventional knowledge/skills?
- How does the knowledge offer a solution to the student's research problem?
- In what ways does the student provide a synthesis of multiple ideas?
- In what ways does the student represent different points of view?
- How does the evidence gathered support the student's hypothesis?
- In what ways does the student use prior knowledge to create new ideas? How does the student support new understandings and generalizations?

I. Developing and Implementing a Research Plan: Research Process**F. Multiple Perspectives**

- How does the student examine resources from multiple points of view to determine validity and usefulness?
- How does the student determine the position of an author?
- How does the student acknowledge multiple points of view in his/her topic or research area?
- How do the student's resources represent a variety of points of view?
- In what ways does the student include all points of view in his/her research?
- How does the student reconcile conflicting expert opinions?
- How does the student use multiple points of view in his/her analysis of a topic?

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I. Developing and Implementing a Research Plan: Research Process**F. Ethics/Unanswered Questions**

- Does the student identify questions about what is still not understood or unknown about this area of study?
- Does the student identify in what ways information is incomplete or lacking an explanation?
- In what ways does the student identify areas where ethics of study and/or product could be questioned?
- Has the student followed protocols and documentation of research so that ethics of product or study are not questioned?

II. Presentation of Learning: Product and Communication**A. Organization**

- How does the student select a product appropriate to the research and audience?
- In what ways does the student strive for a product of professional quality?
- Does the student create a product that is easy for the audience to understand?
- Does the student use a variety of resources in developing the final product?
- Does the student develop written reports, procedures, and explanations?
- Does the student include graphic, pictorial, oral, and/or dramatic presentations?
- How does the student display understanding of underlying principles and concepts?
- In what ways does the student incorporate and synthesize the research in the product?
- How does the student present ideas in a logical and organized manner?
- Does the student discuss and debate conclusions?

II. Presentation of Learning: Product and Communication**B. Delivery**

- How does the student organize the presentation? Is planning evident?
- What presentation methods does the student use to communicate knowledge? How does the student analyze formats for presentation for the information and chose the most appropriate one?
- What written, oral, and demonstration techniques does the student use?
- What presentation methods will most facilitate audience learning? Who is the audience?
- What are the requirements for the presentation? How much time is allotted?
- What makes the presentation interesting? How does the student organize the information in a logical, comprehensive, and interesting way?
- How would a professional in the field present this information? Does the student communicate findings to the audience in a professional way?

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II. Presentation of Learning: Product and Communication**C. Vocabulary of Disciplinarian**

- How does the student use the vocabulary of the disciplinarian to enhance communication of the project's purpose, research process and methodology, and product?
- How does the student communicate relationship between discipline and self?

II. Presentation of Learning: Product and Communication**E. Depth of Understanding**

(Expert or Professional)

- How does the student display a solid real-world understanding of the topic? In-depth knowledge?
- In what ways do the student's work and research methods look like that of a professional?
- In what ways does the product show evidence of new ideas, connections, and flexibility in thinking about a topic?
- In what ways does the study uncover distinct relationships to other fields?
- How does the student use the dimensions of depth and complexity to analyze and demonstrate depth of learning and understandings?

(Innovator)

- In what ways does the student display a deep, real-world understanding of the topic or issue?
- In what ways does the product show evidence of insightful analysis of ideas, connections, patterns, and trends thinking about a topic?
- In what ways is the product significant and relevant to the field of study?
- In what ways does the study uncover important relationships to other fields?
- How does the student use the dimensions of depth and complexity to analyze and demonstrate depth of learning and understandings?

(Originator)

- In what ways does the student display an extensive real-world understanding of the topic or issue?
- In what ways does the product show evidence of unique, sophisticated analysis of ideas, connections, patterns, and trends thinking about a topic?
- In what ways is the product significant, relevant, and provocative to the field of study?
- In what ways does the study uncover significant relationships to other fields?
- How does the student use the dimensions of depth and complexity to analyze and demonstrate depth of learning and understandings?
- What is the difference between an extensive, deep, and/or solid understanding?

Source: Many of the questions are from the "Suggested Scaffolding of Research Skills" document, *G/T Teacher Toolkit*

II. Presentation of Learning: Product and Communication**F. Impact**

(Expert or Professional)

- How can the student transfer new knowledge to other contexts?
- In what ways does the student's product show connections to the real world?
- How does the student communicate new understandings?
- In what ways do the student's work and research methods look like that of a professional?
- In what ways does the student's research answer the research question or solve the problem?
- In what ways is the product relevant and meaningful to the student in his/her life? To the lives of others?

(Innovator)

- In what ways does the student transfer new knowledge to other contexts?
- In what ways is the product new to the field in which student worked?
- In what ways does the student communicate new understandings like a professional?
- In what ways do the student's work and research methods answer the research question or solve the problem by generating new perspectives, solutions, and ideas?
- In what ways do the solutions presented in the product generate ideas for further consideration by professionals in discipline or field of study?

(Originator)

- In what ways does the student transfer new knowledge to other contexts?
- In what ways is the product new to the field in which student worked?
- In what ways does the product have the capacity to change understanding of professionals who work in the field?
- In what ways does the student communicate new understandings like a professional?
- In what ways do the student's work and research methods generate innovative solutions to a problem, develop new applications, and propose generalizations that transform familiar ideas into unfamiliar ideas?
- In what ways do the solutions presented in the product suggest new areas of exploration and/or stimulate new understanding in the discipline?

Other Questions: