

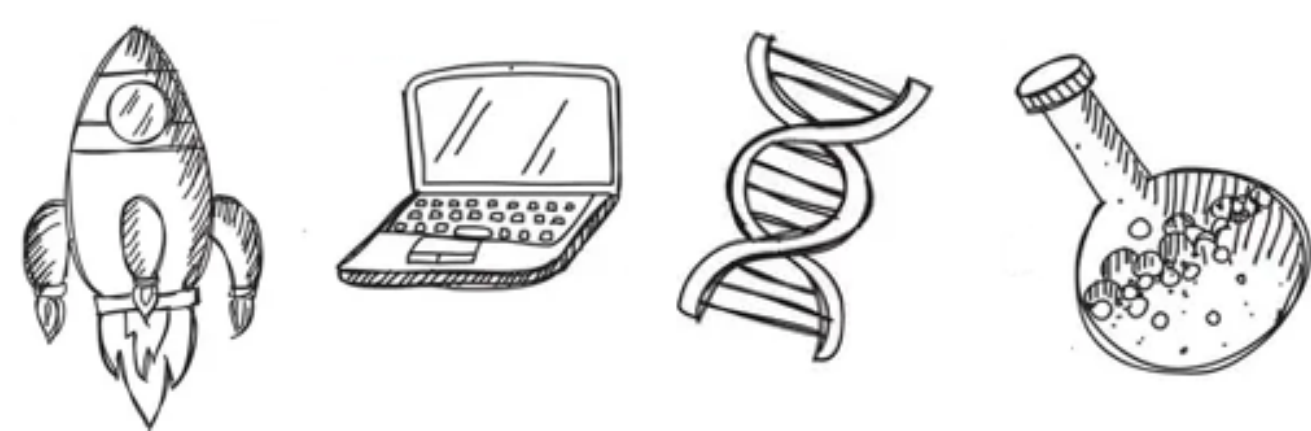
Personal Responsibility: An Expected Outcome of Undergraduate Science

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Personal Responsibility: An Expected Outcome of Canadian Degrees

Universities play a critical role in preparing science graduates to contribute meaningfully to society and navigate the contemporary job market. Central to this preparation is developing a sense of personal responsibility - the understanding that individuals are the authors of their lives, the choices they make, and the impact of those choices on self and others ¹⁻³. Personal responsibility has emerged as a critical component in academic success ^{4,5}, wellbeing ^{6,7}, and a meaningful life ^{7,8}. Despite its importance and inclusion in the Canadian Degree Qualification Framework⁹, this competency often lacks deliberate emphasis in science curricula, partially due to the complexity of defining and operationalizing it.



The Importance of Personal Responsibility

- **Complex Global Challenges:** Responsible scientists are increasingly critical to address issues driven by globalization, technology, and environmental degradation.
- **Rapid Knowledge Evolution:** Transferable skills such as personal responsibility ensure adaptability in an ever-changing employment landscape.
- **Democratization of Knowledge:** The internet and AI have expanded access to information, making skill development a key differentiator for the degree.
- **Impact:** Responsible individuals contribute more meaningfully to societal wellbeing.

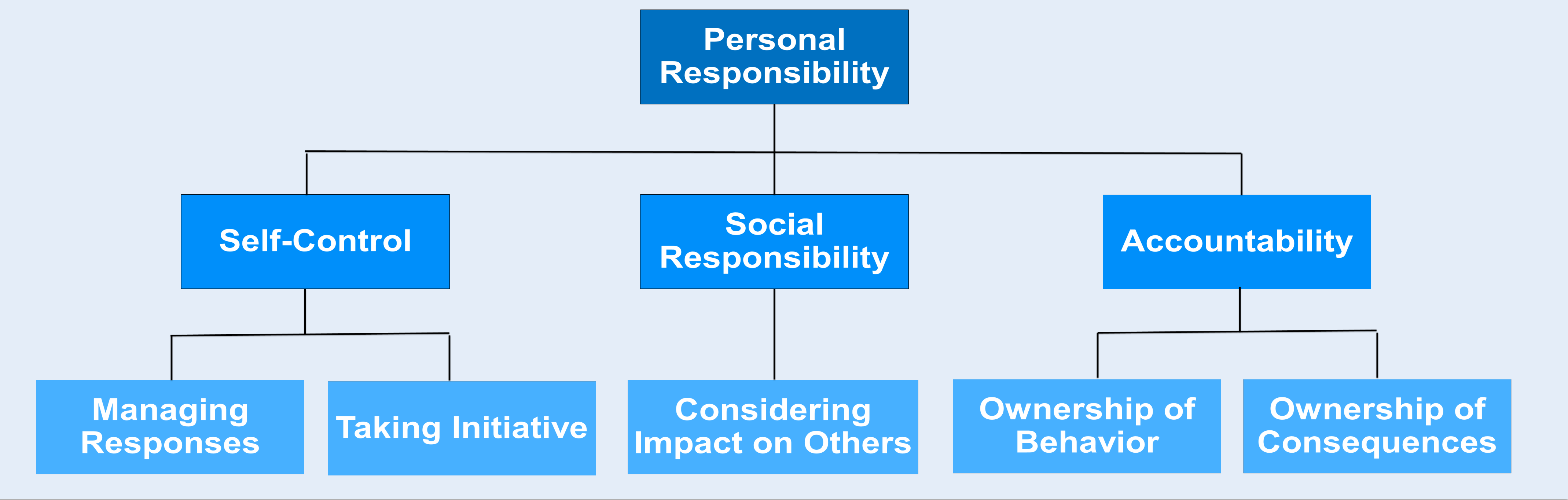
Research Questions

1. What is an appropriate definition of personal responsibility in undergraduate science degree programs?
2. What are the key indicators of personal responsibility for undergraduate science students?
3. What items could be developed to assess these indicators?

Conceptualizing and Operationalizing Personal Responsibility in the BSc

This study lays the groundwork for assessment tools that will be used to guide curriculum design to promote personal responsibility, thereby supporting undergraduate science programs in achieving their learning outcomes. Here I propose a two-phased approach; feedback is appreciated.

Preliminary Framework: A preliminary review of the literature has informed the following framework for understanding personal responsibility. Key emerging indicators include self-control, social responsibility, and accountability, each with suggested sub-constructs outlined below.



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Acknowledgements

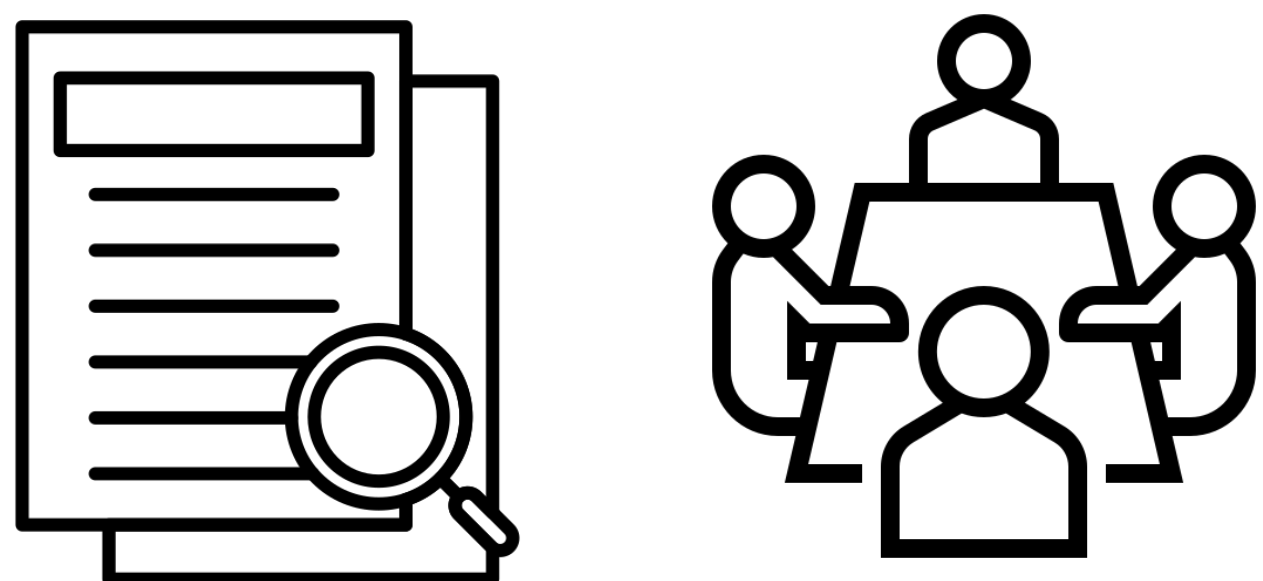
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Phase One: Defining & Identifying Key Indicators

Methods: Scoping literature review and focus groups

Participants: Science educators and professional scientists

Goal: Develop a comprehensive definition of personal responsibility and identify its key indicators in the undergraduate science context

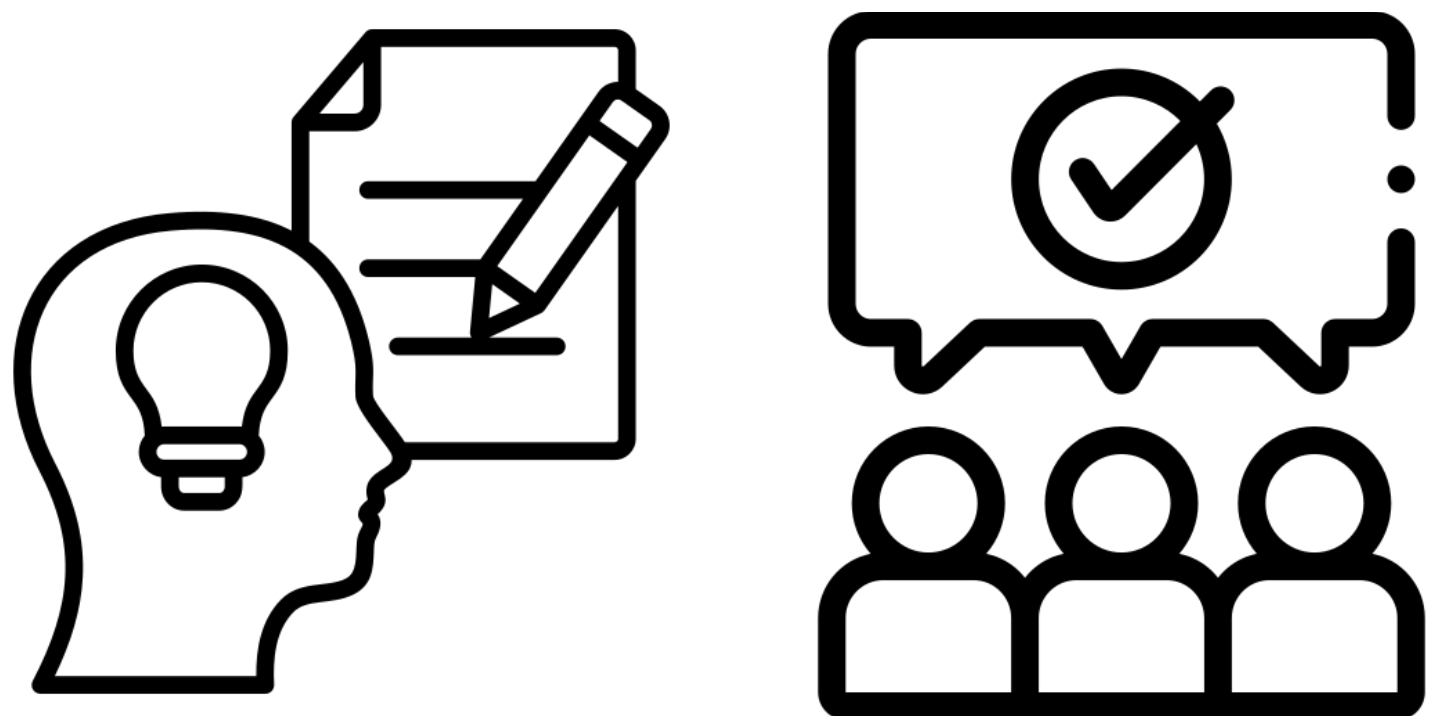


Phase Two: Developing Assessment Items

Methods: Item generation and two Q-sorts

Participants: Science educators

Goal: Develop and refine items that could be used to measure the indicators of personal responsibility in undergraduate science



Discussion Questions

1. Is Personal Responsibility emphasized in your province/institution?
2. How do/could you foster personal responsibility through your courses/programs/institutional policies?
3. What teaching and learning activities might best support the development of personal responsibility in undergraduate sciences?

