

Five ways to get a grip on embedding Equity, Diversity, Inclusion and Accessibility into survey design for non-equity related health professions education research topics

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Abstract

Health professions education research must integrate Equity, Diversity, Inclusion, and Accessibility (EDIA) principles to ensure meaningful and impactful initiatives. Embedding these principles into research methods from the outset helps maintain the integrity of the research and ensures its outcomes align with EDIA values. Recognizing the limited guidance on incorporating EDIA principles into non-equity-related HPE survey methodology, we developed guidelines to address this gap. This led to the creation of 'Five Ways to Get a Grip on Embedding EDIA into Survey Design for non-equity related Health Professions Education Research,' which includes guidelines for integrating (1) diverse sources of knowledge, (2) usability, (3) context sensitivity, (4) bidirectionality, and (5) accessibility. Applying these guidelines can help make surveys inclusive and respondent-centered, providing a strong foundation for enhancing survey design and embedding EDIA principles within health professions education research.

Cinq façons d'intégrer efficacement l'équité, la diversité, l'inclusion et l'accessibilité à la conception de sondages pour des sujets de recherche en éducation des professions de la santé ne portant pas sur l'équité

Résumé

La recherche en éducation des professions de la santé doit intégrer les principes d'équité, de diversité, d'inclusion et d'accessibilité (ÉDIA) afin de garantir des initiatives pertinentes, rigoureuses et porteuses d'impact. L'intégration de ces principes dès la conception des méthodes de recherche contribue à préserver l'intégrité scientifique du travail et à assurer que les résultats demeurent alignés sur les valeurs de l'ÉDIA. Constatant le peu de directives disponibles pour soutenir l'intégration des principes ÉDIA dans le cadre de la conception de sondages en éducation des professions de la santé qui ne portent pas spécifiquement sur l'équité, nous avons élaboré des lignes directrices pour combler ce manque. Ce processus a mené à la création de « Cinq façons d'intégrer efficacement l'ÉDIA dans la conception des sondages pour des recherches en éducation des professions de la santé ne portant pas sur l'équité ». Ces consignes visent à appuyer l'intégration (1) de sources diversifiées de savoirs, (2) de l'utilisabilité, (3) de la sensibilité au contexte, (4) de la bidirectionnalité et (5) de l'accessibilité. L'application de ces lignes directrices peut contribuer à rendre les sondages plus inclusifs et centrés sur les personnes répondantes, tout en fournissant une base solide pour améliorer la rigueur méthodologique et intégrer les principes ÉDIA au sein de la recherche en éducation des professions de la santé.

Introduction

Health professions education (HPE) research systematically examines questions, practices, and learning environments to improve teaching and curriculum design. Our research investigates how integrated and interprofessional education can be implemented across undergraduate and graduate programs within Queen's Health Sciences. This is achieved through a survey that measures existing program collaborations and identifies areas for future partnership, aligning with the faculty's goal of enhancing cross-program and community collaboration.

Embedding Equity, Diversity, Inclusion, and Accessibility (EDIA) considerations at the earliest

stages of HPE research, particularly in survey design, ensures that instruments reflect the diverse perspectives, needs, and experiences of learners and faculty. This process helps prevent bias in question framing, response options, and data interpretation, ensuring equitable and representative outcomes. However, most existing frameworks for integrating EDIA into research were created solely for equity-related topics. For instance, the University of British Columbia's Advancing Inclusion Toolkit contains applicable survey design guidelines to gather information of equity, diversity and inclusion experiences or climates.¹ It discusses centering equity-deserving voices and responsibly collecting demographic data.¹ While the toolkit is important, it illustrates how literature has limited guidance on how to apply EDIA-informed survey design

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principles to non-equity-focused topics, e.g., our current study of an environmental scan of interprofessional education within Queen's Health Sciences. Our project demonstrates how EDIA principles can guide survey design within non-equity-related HPE research topics.

Our team is composed of members with diverse expertise in HPE research: the Director of Equity, Diversity, Inclusion, Indigeneity, and Accessibility and a Queen's University MD Program (undergraduate medical education) faculty member, an Educational Developer from the Office of Professional Development and Educational Scholarship, and a Health Sciences undergraduate student. Given the limited literature, we identified four key resources that effectively applied EDIA principles across diverse research contexts and adapted them to our HPE research survey design. Namely, Caldas et al. described an iterative and collaborative approach to survey development to assess the needs of individuals living with long COVID.² Flicker et al. detailed co-design methods with youth, academics, and community partners.³ Rebbeck et al. explored equity in genetics and genomics research, while Hall and Hanna examined accessibility in digital tools such as online surveys.^{4,5} Drawing on and adapting these frameworks, we developed five guidelines for embedding EDIA principles into survey design within non-equity-related HPE research topics.

How to get a grip on embedding EDIA into survey design

1. Integrate Diverse Sources of Knowledge

Flicker et al. and Rebbeck et al. emphasize the importance of integrating diverse perspectives into research methodology to promote inclusivity and rigor.^{3,4} Accordingly, we recommend drawing on diverse perspectives, including an EDIA expert, decentering North American literature, and engaging diverse survey users to ensure an

inclusive survey design. We define an EDIA expert as an individual with conceptual knowledge of EDIA principles who hold a leadership or specialist role dedicated to advancing these principles across diverse spaces and practices.

Actions recommended

- Collaborating with EDIA experts and diverse survey users to ensure that questions are developed with best practices for inclusive language.
- Decentering North American literature in survey design to integrate global perspectives and minimize cultural bias.

2. Ensure Usability

Rebbeck et al. discuss usability by accommodating diverse literacy and preferences.⁴ Caldas et al. advocate for an inclusive, respondent-centered research approach.² Based on this, we recommend prioritizing usability to ensure that all participants can easily navigate and complete the survey regardless of their background.

Actions recommended

- Defining key terms that may not be familiar to all participants to ensure equitable participation among respondents with varying educational and cultural backgrounds.
- Providing visuals and examples to clarify complex concepts.
- Adding plain language sections to the survey to introduce concepts.

3. Integrate Context Sensitivity

Caldas et al. discuss the importance of considering context-sensitive factors when assessing healthcare experiences.² Accordingly, we recommend applying these principles to survey design to reduce stigma and enhance inclusivity for respondents.

Actions recommended

- Reviewing and editing survey language to avoid stigmatizing or negatively labeling participants.
- Placing sensitive questions near the end of the survey to build rapport and trust.
- Including a “prefer not to answer” option to support participant comfort and autonomy.

4. Integrate Bidirectionality

Rebbeck et al. advocate for bidirectionality as fostering reciprocal relationships with participants and community partners in genomics research to ensure meaningful input across the research design.⁴ Accordingly, we recommend bidirectionality to empower participants by ensuring that they derive immediate and tangible benefits from completing the survey. This approach shifts the process from a unidirectional model, where participants only provide data, to a collaborative one that values shared knowledge, mutual respect, and ongoing engagement.

Actions recommended

- Being explicit about the survey’s bidirectionality at the beginning and the ways it will be achieved.
- Providing respondents with summarized findings after data analysis and/or allowing participants to save a copy of their response so they may use it for their own purposes.
- Offering respondents an opportunity to provide additional input or ask questions after reviewing their own answers either through directly interacting with the researcher or through a follow-up feedback survey.

5. Integrate Accessibility

Hall and Hanna discuss accessibility in web-based initiatives such as surveys.⁴ We recommend integrating accessibility into survey design.

Specifically, Hall and Hanna reference the World Wide Web Consortium (W3C) guidelines which ensure content is accessible to users with visual and motor impairments.⁴ W3C guidelines are based on four principles: (1) perceivable—information must be accessible, (2) operable—interface components must be usable, (3) understandable—content must be user-friendly, and (4) robust—content must be compatible with various user agents, including screen readers.⁵

Actions recommended

- Using a survey platform like Qualtrics that provides assistive technologies such as alt text for images and keyboard navigation.
- Using appropriate font size, colour contrast, and typeface for participants with visual impairments or color blindness.
- Enabling users to return to and continue their responses to promote equitable participation by accommodating time, access, and accessibility needs.

Conclusion

These five ways to get a grip on embedding equity, diversity, inclusion and accessibility into survey design address gaps in the literature and offer a framework adaptable to non-equity health professions education research beyond our current study on the environmental scan of interprofessional education.

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