

Educational Reform Through Designing Culturally Appropriate Assessment Frameworks

Hossein Ghanbari, PhD

University of Victoria, Canada

*Corresponding author: Hossein Ghanbari, Email: hosseinghanbari1980@gmail.com
Address: University of Victoria, BC, Canada

Abstract

Assessments in education enables educators, curriculum designers, and program developers to evaluate the success of their programs. It also allows for assessing learners enrolled in the programs. Assessment frameworks emanate from a Western and positivistic stance and tend to disregard linguistic and cultural diversity from the mainstream European point of view. That said, failing to recognize the distinctions of diverse learners has led to inequitable learning experiences for minority learners, who have distinct ways of knowing, worldviews, and epistemologies, and have led to their high-rates of drop-out and under-performance in academe. Thus, this study reviews the literature on assessment and has found that current assessment frameworks have contributed to the high drop-out rate and academic under-performance among minority learners. This, however, could be resolved when educators indigenize and re-define assessment frameworks and assess their minority learners' academic performance using culturally appropriate frameworks that incorporate their Indigeneity and ways of knowing.

Keywords: assessment framework, indigeneity, assessment, indigenous, culture

Introduction

The world we live in is home to diverse people who, due to various reasons, may end up living in close proximity to each other. However, this multiculturalism/multilingualism comes at a price since education is offered in the dominant language of a context and will often offer little or no appreciation of its minority peoples' languages, cultures, and ways of knowing. An example of this is the residential schools in Canada, where First Nations youth were forcibly separated from their parents to be educated in an English education system. Given such a history, it is critical to explore such contexts and their minority learners, who will encounter academic systems encoded with cultural and linguistic knowledge that will drive them to mold themselves accordingly. Such systems will eventually propel minority, Indigenous learners to undergo language shift/loss and experience academic under-performance and high drop-out rates (Redecker & Johannessen, 2013). This under-performance has been attributed to such academic systems and their assessment frameworks that encompass Western standards, depreciate non-Western/Indigenous ones (LaFrance & Nichols, 2010), and fail to consider the individual differences in them. As a consequence, minority learners will be excluded from such systems as they do not belong to the

mainstream, fail to identify with the experience (Pearce & Williams, 2013), and are rendered unqualified for many jobs after they have graduated from school (Li & Dockery, 2015).

This has driven various scholars to investigate how academic systems instigate such challenges and attempt to supplement them with more inclusive and culturally appropriate learning environments. As an example, Mbah and Johnson (2021) have explored the role of Indigenous knowledge in postsecondary policies to implement sustainable development, and Collins and Kalehua Mueller (2016) have studied the Indigenous knowledge's decolonizing effect that will contribute to creating an epistemological diversity in the university. That is because Indigenous knowledges include the spirit and holistic implications, relationships among all entities, and embedded insights different from those of Indo-European ones (Kovach, 2015), and as such, they do not align with decontextualized education advocated in non-Indigenous/European educational systems (Munroe et al., 2013). By the same token, the assessment frameworks designed by educators in European, decontextualized educational systems fail to provide for the educational needs of minority Indigenous learners.

Additionally, because Indigenous knowledges emanate from Indigenous lands, environments, and contexts, they emphasize learners' self-confidence and spirituality. This way, they treat the effects of colonialism and imperialism and address them directly (Smith, 2012), leading to the preservation of Indigenous peoples' cultural identities and languages (Munroe et al., 2013).

At the same time, other scholars have explored the exclusion of minority learners and their knowledges from academic systems as using *other* knowledges challenge "stereotypes and assumptions" (Fonua, 2021, p. 13) towards them. This paper is in line with this mindset and argues in favor of reforms in the assessment frameworks of the academic systems in multicultural contexts in favor of more equitable, inclusive, and culturally sustainable ones akin to that of the minority learners' pedagogy in it. This will align with the right of Indigenous minority peoples to take control of their own education and design programs based on their cultures and languages. As an illustration, and in response to the 1969 White Paper that aimed to cancel Indigenous rights in Canada, First Nations of Canada developed the Red Paper in 1970 to protect their own rights and involvement in developing policies that would impact themselves (Jenkins, 2007). One of the ways this could be accomplished is by receiving flexible and cultural education based on Indigenous knowledge (Leonard, 2021), which could be actualized, for instance, in a special relationship developed between a student and their doctoral supervisor (Chew & Nicholas, 2021). That said, in the following parts of this article, I will first discuss equity in education before I review assessment from Western and non-Western perspectives. Then, I will explore several Indigenous minority assessment frameworks while I argue in favor of designing and developing culturally appropriate assessment criteria.

Literature Review

Equity in Education and Assessment

Even the most egalitarian societies are comprised of different social stratifications, where everyone belongs to a social class akin to their cultural, political, and economic background. Understandably, this diversity renders it difficult to discuss equity in academia since it has different connotations for different people. For example, equity could mean combating poverty because, based on MacDonald and Wilson (2013), half of the First Nations children in Canada live in poverty, which, as I will argue further in this paper, will negatively impact their academic performance. According to Ballantine et al. (2017), inequalities exist even in the early years of schooling and are displayed in the performance of standardized tests. They further argue that working-class learners will struggle more in school compared to middle-class ones who will demonstrate greater academic performance. They attribute it to cultural capital that promotes success in academic and workplace performance. This is further attributed to academic systems that foster the norms and expectations of the privileged social classes that working-class learners fail to relate to because their cultural capital differs from the one in the academic context in which they study. As a result, it should not be surprising that such learners demonstrate less satisfactory academic performance since they feel alienated from such norms and fail to find respect for their working-class knowledge and norms (Ballantine et al., 2017). In that sense, education systems, along with their assessment frameworks, fail to represent their minority learners (LaFrance & Nicholas, 2010), and this lack of representation has contributed to the underperformance of their minority students, who will find themselves in a context with which they may not have much in common. To give an example, Astin (2013) analyzed American higher education and argued that it has underrepresented Black, Indigenous, Hispanic, and poor students in general and in its elite institutions in particular.

That said, Ainscow (2020) argues the UN launched the "Education for All" movement in 1990 to identify educational barriers that impede access to educational opportunities and identify resources at the community and national level. Since then, scholars have offered educational reforms and changes to meet the educational needs of their society as well as those of their learners. One such change pertains to assessment frameworks, which are traditionally Western in nature and may fail to provide for the needs of minority learners (LaFrance & Nicholas, 2010), who may feel estranged when exposed to them. Additionally, the "Education for All" movement was followed by the World Conference on Special

Needs Education to advocate inclusive education through policy shifts to provide for the needs of their learners as well as those with special educational needs (Ainscow, 2020).

However, I believe before that, educators will need to define *needs* and elaborate on *how* they are evaluated for success. For instance, minority learners will receive education in the dominant language of their society which may differ from their home language and the accompanying culture. This raises the question of whether multilingual learners should receive education in their mother tongue or the dominant language of their society. Answering this will evoke varied reactions because although minority learners may wish to receive education in their language and culture, they may end up competing with other learners in the dominant language of their society. An example of this is the Sami of Sweden who will have to decide between learning the Sami Indigenous language or the Swedish language to increase their employability in the future (Nutti, 2018). Thus, even though multilingual societies may offer education in its dominant language as well as in its minority languages, one may logically doubt whether such an approach is ultimately beneficial for their minority learners. The same argument could be put forth for assessment, as well as assessment frameworks, and in what follows I will explore it from different cultural and linguistic aspects paired with examples from each philosophy.

Assessment enables educators and program developers to evaluate the success of their programs and that of those who attend them. Assessment is all the activities undertaken by educators, students, curriculum developers, and policy makers in order to obtain information they can use to change their teaching and learning experiences, or a process through which information is obtained with regard to an objective. Based on Astin (1993), assessment refers to gathering information— or measurement— and improving how higher education institutions and their individuals function—evaluation. It includes tests and standardized tests such as the *No Child Left Behind Act* that aim to test students regularly throughout the year in order to distinguish the academic performance of those learners who are developing their skills from those who have already developed them. However, as minority learners are not represented in standardized tests, they will receive lower test scores compared to other learners (Astin, 2013).

There are different types of assessments. Diagnostic assessment enables researchers and educators to closely study and classify their learners' learning difficulties to provide appropriate guidance for them (Kelly, 2004). Formative assessment helps educators make necessary changes in their teaching methodologies and contents to help their learners increase their learning experience, facilitate program improvement, and provide feedback in the teaching process (Dixson & Worrell, 2016). Summative assessment is in multiple-choice or short-answer formats and happens at the end of instruction. It enables educators to evaluate a part of the curriculum in order to distinguish learners from each other, or group them based on their performance, and determine their quality of learning or the extent they have learned in that program (Bennett, 2011).

However, there are opposing views with regard to assessment. Scholars such as McCarty and Nicholas (2014) believe assessment plays a positive role in the quality of learning because it enables educators to distinguish the performance of learners with developing skills from those who have already developed them. Additionally, Webber (2012) argues assessment improves learners' involvement and collaboration with faculty and allows educators to evaluate how much learning is taking place on the part of their learners. On the contrary, there are educators who believe assessments and tests do not yield any benefits for students but harm those who do not pass them. For instance, Pearce and Williams (2013) believe assessment diminishes education and excludes learners who do not belong to the mainstream but come from different linguistic and cultural backgrounds. Similarly, Jacob (2018) attributes the high rate of school drop-out and poor academic performance among Indigenous learners to non-Indigenous assessment, which fails to “successfully capture or build on [Indigenous] potentially important content knowledge and understanding” (Nelson-Barber & Trumbull, 2007, p. 2). This line of argument aligns with Ballantine et al.'s (2017) point of view that connects minority learners' academic under-performance to their lack of belonging and feeling alienated from norms in academic contexts even though this lack of participation has changed, and Indigenous learners are increasingly participating in higher education (Pidgeon, 2016).

As a result, and due to the growing multiculturalism in academia, scholars propose, develop, and adopt changes and appropriate approaches to address the educational needs of their diverse learners. In doing so, they have begun to re-consider the logic and philosophy behind assessment because its frameworks are designed for a monolingual population, deteriorate education, encompass Western standards, and disregard marginalized learners (LaFrance & Nicholas, 2010; Pearce & Williams, 2013). For example, Bourke and Mentis (2014) discuss how narrative assessment combines summative and formative assessment approaches to provide for the educational needs of learners with high needs. They further note, “Learning stories as a form of narrative assessment position the learner at the center of the assessment and hence are a valuable addition to the repertoire of assessment options for teachers working with learners with high needs” (p. 11).

In addition, I argue that *Indigenizing* assessment frameworks based on learners' ways of knowing will enable scholars to provide for minority learners' educational needs and assess their academic performance accordingly. These assessment frameworks help scholars to effectively explore Indigenous cultural knowledges and pedagogies, reduce bias

and inequity (Nelson-Barber & Trumbull, 2007), and reflect on the decolonizing impacts of Indigenous ways of knowing (Collins & Kolehua Mueller, 2016), which, as discussed above, differ from the decontextualized knowledge advocated in European educational systems (Munroe et al., 2013). To demonstrate this point further, in the following section I will review several assessment frameworks culturally designed based on the educational philosophies of the learners and communities involved in the program.

Designing Indigenous Assessment Frameworks in Non-Indigenous Academia

According to Pidgeon (2016), the number of Indigenous minority students in non-Indigenous academic institutions is increasing, and more non-Indigenous scholars appreciate Indigenous pedagogies and ways of knowing. That is because Indigenous knowledges are reciprocal and different from conventional knowledge (Wilson, 2008), meet the needs of Indigenous communities and peoples, and teach lifelong responsibilities to Indigenous peoples. On the other hand, Western academia is influenced by *positivistic* and compartmentalized ways of thinking and is predominated by *whiteness* and *social inequalities* (Fleet & Kitson, 2009, p. 2). This categorized approach of knowledge is also depicted in non-Indigenous assessment frameworks, which fail to consider learners' sociocultural factors (Nelson-Barber & Trumbull, 2007) and depreciate non-western values (LaFrance & Nichols, 2010). As such, it fails to provide for the educational needs of the Indigenous students and is one of the reasons that Native Hawaiian students comprise a significant percentage of Special Education (Ogata, Sheehy, & Noona, 2006). In other words, non-Indigenous assessment frameworks will fail to appropriately assess students' performance or provide reliable results on their learning. As a solution, scholars have begun to develop assessment frameworks based on their participants' cultural idiosyncrasies, or "cultural validity" (Messick, 1989), and this will help them boost their sense of belonging as well as participation in non-Indigenous academia.

Developing Indigenous assessment frameworks provides culturally appropriate tools to assess Indigenous students' language performance based on their values and ways of knowing. These criteria are based on verbal protocols (Erdösy, 2009) and role-play interviews as well as the idiosyncrasies of the Indigenous people in the research. They may encompass such cultural protocols as having an *opening prayer* and a *respectful language* (LaFrance & Nichols, 2010) or whether Indigenous learners have a clear spirit and a good heart (Smith, 2012). Such frameworks incorporate the Indigeneity of the test takers and acknowledge *the imperialist baggage* within non-Indigenous assessment criteria (Fleet & Kitson, 2009) to evaluate the performance of programs and students in a culturally responsive manner.

There is a rich literature on the important role that culture plays in academic and language learning performance which scholars can incorporate in their Indigenous assessment criteria. For instance, Oster et al. (2014) argued that Indigenous students who speak an Indigenous language live longer in residence, are less obese, suffer less from heart disease, and demonstrate reduced levels of diabetes. Based on Chandler and Lalonde (2008), First Nations in BC, Canada who have a strong Indigenous knowledge of their language demonstrate a better academic performance and a lower rate of suicide. This also holds reality about Navajo-speaking students with mastery over both English and Navajo because they will academically outperform those who receive education in English only (Lee & McLaughlin, 2001). In addition, "Navajo students whose teachers integrated local standards with state standards and aligned curriculum and assessment through a portfolio process were able to engage in high-level literacy activities and demonstrate their learning successfully" (Nelson-Barber & Trumbull, 2007, p. 7).

Therefore, it is wise to conclude that incorporating Indigenous minority learners' language, culture, and ways of knowing in academia helps scholars and minority learners to develop culturally appropriate assessment frameworks and demonstrate a more satisfactory academic performance. However, one should approach assessment with discretion because implementing *one* assessment method for all Indigenous peoples will probably fail to fulfill the needs of them all. To avoid that, scholars could *re-define*, and *tailor* assessment frameworks based on the Indigenous epistemology, pedagogy, and language of their learners involved in the program.

Indigenous Assessment Frameworks: Examples in North America

I have discussed the designing and implementing culturally appropriate assessment frameworks in the assessment of the academic performance of minority people. In this section, I will review several such frameworks and their building blocks to showcase them to scholars who may aim to develop similar frameworks or revitalize their own Indigenous ones. To begin with, LaFrance and Nichols (2010) discuss an Indigenous framework developed by the American Indian Higher Education Consortium (AIHEC) that designs educational frameworks for Indigenous communities and evaluates their concerns based on four central values of "People of a Place," "Recognizing [Indigenous Gifts]," "Centrality of Community and Family," and "Sovereignty." LaFrance and Nichols (2010) assert that the AIHEC incorporates Indigenous experiences, epistemologies, and ways of knowing with western evaluation practices in the designing, developing, and assessing

programs that meet the educational goals and needs of Indigenous peoples. They further argue that the required knowledge to develop an assessment framework is found within the Indigenous communities, stories, ceremonies, and ways of living.

A group of Native Hawaiian researchers and language experts from the Kū-A-Kanaka Indigenous Institute for Language and Culture designed the ANA'ŌLELO evaluation framework to assess Hawaiian learners' language proficiencies, prevent Hawaiian language death, and increase its use and learning. According to Kahakalau (2017), this framework is based on a Hawaiian perspective to reinforce Hawaiian native culture and assess the linguistic abilities of learners of Hawaiian as an Additional Language. She adds this framework is an innovative, culturally driven language tool that uses qualitative and quantitative data and is based on Indigenous and heuristic action research and Ma'awe Ponor, a non-linear Hawaiian methodology for data collection, analysis, and production. She furthers the ANA'ŌLELO is extremely flexible in measuring Hawaiian learners' oral language proficiency and allows them to evaluate their traditions like *protocol*, the concept of doing the right thing, at the right time, for the right reason. There are six levels through which one's proficiency of Hawaiian language, traditions, and values are assessed: "Level 0: HŌLONA: No Knowledge; Level 1: NŌHIE: Elementary Knowledge; Level 2: LAUA: Limited Proficiency; Level 3: MĀKAUKAU: Basic Proficiency; Level 4: PĀHE'E: Full Proficiency; Level 5: LOEA: Native Proficiency" (Kahakalau, 2017, p. 9).

When I investigated the success of one of the Indigenous Language Revitalization programs, Bachelor of Education in Indigenous Language Revitalization Program (BEDILR), offered at the University of Victoria, BC, I had the pleasure of working with the W̱SĀNEĆ Indigenous people to investigate the concept of assessment from their point of view. Based on the findings in my interviews and the qualitative analysis of the data, participants asserted that the BEDILR is a successful language revitalization program because it incorporates the W̱SĀNEĆ Indigenous pedagogy and follows an approach and assessment method based on the W̱SĀNEĆ worldviews, knowledge, epistemology, and the SENĆOŦEN language (Ghanbari, 2021).

O'Grady (2017) offers Holistic Assessment and Targeted Componential Assessment and asserts that while the former evaluates learners' overall communicative ability and focuses on pronunciation, vocabulary choice, and grammaticality, the latter focuses on individuals' specific components of language and vocabulary items. The last assessment framework is offered by Kana'iaupuni, Ledward, and Malone (2017) who state that *Cultural Advantage* is designed and developed as a significantly valuable structure to remedy social injustices that Indigenous peoples have experienced through colonization. Based on them, *Cultural Advantage* enables scholars to "re-examine the structures, paradigms, and practices of effective education" (p. 1).

Discussion

This paper discussed how educators and curriculum developers rely on assessment frameworks to evaluate the academic performance of their learners and that of their programs. In so doing, they have traditionally depended on positivistic frameworks developed based on western ways of knowing. However, and as discussed throughout this paper, these frameworks and their philosophies, among other reasons, have contributed to high drop-out rates, lack of attendance, and unsatisfactory academic performance among minority, Indigenous learners. This has been partly attributed to the differences between Indigenous knowledges and European knowledge because although the former encompasses a holistic approach, the latter is positivistic in origin (Kovach, 2015). As a result of this, minority, Indigenous, minority learners may feel alienated from such systems, and this lack of belonging to such norms may lead to their academic under-performance (Ballantine et al., 2017). By the same token, as the existing assessment frameworks in academe are majorly developed based on European knowledge, they may not provide for the educational needs of minority, Indigenous learners, who are increasingly attending non-Indigenous educational systems (Pidgeon, 2016). To address this, scholars develop new assessment frameworks to represent the cultural values, epistemologies, and ways of knowing of all learners in education systems. In one of such frameworks, Bourke and Mentis (2014) delineate how summative and formative assessment approaches are combined in a narrative assessment to provide for the educational needs of learners with high needs. These changes will contribute to equity and decolonization of education systems in multilingual, multicultural societies.

Conclusion

This paper argued in favor of developing assessment frameworks based on the cultural values and knowledges of minority, Indigenous learners in education system. Such a development could be made through *Indigenizing* and *re-defining* assessment frameworks as well as the implementation of cultural knowledges and pedagogies in such frameworks. This, in turn, will help decolonize educational systems and preserve Indigenous and minority peoples' cultural identities, traditions, and languages (Munroe et al., 2013) in such systems. As a result, there will be an increase in the attendance and sense of *belonging* of minority learners in non-Indigenous academic contexts as they distinguish the existing "imperial baggage" from non-Indigenous assessment criteria and academic systems (Fleet & Kitson, 2009). More importantly, this

implementation of cultural knowledges and pedagogies as well as the decolonization of education systems will hopefully help reduce bias in Indigenous research, leading to a more equitable academe and education system.

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HOSSEIN GHANBARI, Ph.D., in Educational Studies, is an experienced university instructor and scholar. Hossein is interested in Applied Linguistics and History and Sociology of Education, with a focus on educational reforms. Hossein has taught in diverse contexts since 2003 and in Canada since 2017, where he teaches domestic and international undergraduate students.