

AcademIK Connections: Bringing Indigenous Knowledge and Perspectives into the Classroom

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Abstract

Indigenous knowledge is local knowledge aggregated by communities over generations, reflecting many years of experimentation and innovation in all aspects of life. Unfortunately, positivist thinking has become the dominant epistemic culture within the academic and professional arenas and leads to the systematic marginalization of alternate ways of knowing, learning, and doing. Educating global-minded social problem-solvers necessitates bringing knowledge and perspectives of indigenous people with different epistemologies and philosophies of life into the classroom. Penn State has produced AcademIK Connections, a series of video clips that provide engaging stories about the importance of indigenous knowledge systems in developing entrepreneurial solutions to address community challenges. The video clips feature stories by individuals that, collectively, represent decades of experience in engaging with indigenous communities. These individuals come from diverse disciplines and scholarly research traditions and are known to consciously and respectfully employ indigenous knowledge in their academic activities. This paper discusses the importance of integrating indigenous knowledge into the classroom and suggests that the video series can help transform the classroom into an engaging and intriguing smorgasbord of philosophies and epistemologies.

The way we view and understand the world around us is uniquely shaped by attitudes, values, and beliefs acquired over the course of our lives. Every situation we encounter, every experience we have, directly contributes to our epistemology: the manner in which we come to know what we know. In modern Western society, the rise of positivist thinking has become the dominant epistemic culture, especially within the academic and professional arenas (Fischer, 2000). Positivist epistemology utilizes the scientific method to produce empirical data, the analysis and interpretation of which becomes the foundation of our knowledge base. The current academic system privileges graduates with disciplinary expertise rooted in scientifically generated knowledge, a cyclical pattern that suggests a privileging of positivist epistemology over other, equally plausible ways of understanding the world. As citizens, teachers, students, and professional experts, a focus on positivist science too often precludes a more reflexive discussion about the ways in which we acquire our knowledge and thus engage with the world around us.

We currently emphasize the use of science to solve local problems in many disciplines including medicine, engineering, food science, and agriculture. Collaboration and cooperation between universities and communities may quickly become strained, especially if the academic knowledge produced seems unrelated to, or out of touch with, the realities of peoples' local life. If people feel that their opinions and beliefs are not respected, their interest

in engaging with outside experts may diminish—or worse—foment and perpetuate a distrust of external “experts.” While expert knowledge from competent scientists is certainly valuable in many ways, it is often devoid of contextual considerations that may change how the data are interpreted and utilized. In approaching community development and engagement projects, it is imperative that we consider the cultural context of our work, as well as the knowledge that is produced within that context. This “insider’s perspective” can be termed indigenous, traditional, or local knowledge. Indigenous knowledge is uniquely valuable, as it provides insight and information that directly reflect the opinions, values, and attitudes of the local people engaged in a community development initiative. Breaking sole reliance on expert-driven knowledge, and elevating a perspective that seamlessly integrates the techniques of modern science with the realities and expertise of local people, is a paramount challenge facing the publicly minded academic or expert practitioner. It is essential that we ask of ourselves: Are there alternative ways of approaching research, teaching, and outreach in my discipline that incorporate knowledge generated in the local context?

The process of integrating new perspectives and epistemologies into academia does not seek to unseat or compete with existing pedagogies and methods. To do so would only strengthen the socially constructed, hierarchical divide between expert and local knowledge. Rather, we must look

to move beyond this binary view and embrace indigenous knowledge as a means of enhancing our discussion concerning the challenges that face local and global communities. In a world of diverse interests and knowledge, our conversations should seek to represent these multiple perspectives, with the hope of developing new and innovative solutions to the problems we face. However, education about how to incorporate indigenous perspectives in the study of science at all academic levels is lagging in some disciplines, and virtually absent in others.

This article highlights *AcademIK Connections*, a video series developed by Penn State that seeks to introduce indigenous perspectives into the classroom.

The purpose of *AcademIK Connections* is to incorporate into the university setting alternative ways of knowing, learning, and understanding the world that complement and contrast with positivist-oriented epistemologies. By providing an expansive range of perspectives, *AcademIK Connections* can enhance and diversify classroom discussion and encourage students and faculty to reflexively examine their own perspectives. The series is comprised of 12 video clips, each 5–8 minutes in length. *AcademIK Connections* features compelling stories from the field of how indigenous knowledge, grounded in concrete examples from disciplines including engineering, agriculture, wildlife science, tourism, and health and human development, can be leveraged to develop feasible, problem-oriented, culturally sensitive, entrepreneurially focused, solutions to real-life community problems that have a reasonable probability of successful implementation. Following a discussion about the importance of indigenous knowledge to social and development sciences, it will be shown how *AcademIK Connections* can be used to make learning about local and indigenous perspectives exciting and intriguing, and how it can help to foster a more robust, citizen-driven epistemology for scholarship in an age of global challenges. It is difficult to imagine implementing the United Nations Millennium Development Goals that aim to significantly reduce world poverty without valuing the contributions of the keepers of indigenous knowledge. Some examples of situations amenable to the application of indigenous knowledge include finding remedies for infectious diseases; resolving issues related to child and maternal health; promoting collaboration between professional researchers and indigenous practitioners; supporting intergenerational transfer of indigenous knowledge and cultural heritage;

and designing appropriate educational materials to encourage practices that enhance individual and community well-being, while empowering women, youth, and other marginalized groups.

Indigenous Knowledge: Definitions, Barriers, and Opportunities

Indigenous people have an implicit belief that the accumulated and constantly refined wisdom of their ancestors and the elders in their communities has enabled their cultures to survive for millennia in the unique locations they identify as their homelands. They also know that parents, grandparents, and their extended network of relatives have the responsibility of passing on to each new generation the essential knowledge that will allow them to continue to exist as a culture. However, for many of today's students, as well as for their professors, it seems important to provide a definition for indigenous knowledge, since the way students are encouraged to learn and professors are encouraged to teach is not the way learning takes place in indigenous cultures.

There are many definitions for indigenous knowledge. Settee (2008) notes that the definitions depend upon "whether one is a scholar or one is community-based," but that "as a body of knowledge, IK, albeit with different names, has gained currency among researchers and governmental agencies, as well as with civil society organizations" (p. 45). Although a distinction is often drawn between indigenous and scientific knowledge in terms of the way in which the knowledge is generated/produced, utilized, and validated, Agrawal (1993) contends that the difference exists primarily in the sphere of ownership and reflects the relative ability of scientists and indigenous cultures to capitalize on knowledge to which they can lay claim. In assessing the various attributes ascribed to indigenous knowledge by a score of authors, Ellen and Harris (2000) conclude that indigenous knowledge is local, particular to a place, and generated by people living in those places. It is transmitted orally or through imitation and demonstration and is the consequence of practical engagement in everyday life where it is reinforced by experience, trial and error, and deliberate experiment. Indigenous knowledge is holistic, integrative, and situated within broader cultural traditions and is empirical rather than hypothetical. Its repetition contributes to its retention, even when new knowledge is added. Indigenous knowledge of the environment, though often viewed as static, is constantly changing and its definition as "people's science" reflects that it is

generated in everyday activities and widely shared, though generally distributed asymmetrically by gender and age and preserved in the memories of different individuals. While not comprising a singular “definition” of indigenous knowledge, these attributes, individually and collectively, suggest why indigenous knowledge is relevant in the context of development while creating difficult intellectual challenges for Western-trained academics and their students as well as the residents of communities in which they work.

The attributes of indigenous knowledge are useful in establishing the context in which AcademIK Connections can be employed to bring new insights into the classroom. Let us take, for example, the video featuring Dr. Carolyn Sachs a professor of rural sociology at Penn State, who has worked extensively in Africa, Latin America, and Asia as a valued member of agricultural specialist teams seeking to address issues of food security by applying research-based management practices to increase crop yields. In the video, Sachs describes a situation that arose in Swaziland, when her team was advising women farmers on how to obtain a higher maize yield by employing a specific type of fertilizer. One of the team’s observations was that the women were not regularly weeding the maize, thus reducing its yield. The team assumed that the women were not weeding because they were too busy with household chores and child care to spend sufficient time in their fields. Several years later, a student was studying the diets of these households and discovered two plants that the families were consuming daily. The student discovered that those two crops were what the scientists had identified as “weeds” in the maize fields. Women were letting the plants flourish, not because they were lazy or didn’t have enough time to weed their maize, but because those “weeds” were known to be “good for their health.” Indeed the weeds were subsequently identified as an important source of pro-vitamin A in the family diets. Inviting Sachs in person to describe her acquired insight about women farmers’ traditional knowledge of edible plants in Swaziland would be difficult and prohibitively expensive. But showing her short video clip in a class or using it as an assignment could elicit discussions ranging from ethnobotany to the impact of HIV/AIDS and from the validity of field observations to the impact of exotic crops on indigenous plant species in environments subject to frequent droughts. It is to promote such non-linear thinking in a specific environmental context without regard to the intellectual constraints of a particular academic

discipline that teaching tools such as AcademIK Connections are urgently needed.

Barriers to Inclusion of Indigenous Knowledge in Academia

Faculty and cooperative extension agents participated in a web-based study conducted in 2004 to understand the barriers and supports that affect their likelihood of incorporating indigenous knowledge into their teaching, research, and outreach activities. The study’s results concluded that discipline, academic rank, place of employment, and peer support influenced the faculty member’s reported use of non-academic knowledge (Semali, Grim, & Maretzki, 2006). Appreciation and application of indigenous knowledge in teaching, research, and outreach activities was significantly less on the main campus and increased on commonwealth campuses where faculty involvement with communities was greater.

Faculty in the sciences and engineering were significantly less likely to employ indigenous knowledge concepts than their peers in the social sciences and humanities. Engineers, chemists, physicists, and others who rely upon empirical data that can be quantified and subjected to rigid hypothesis-testing did not place a high value on scientific knowledge generated through “trial and success” and observation and experimentation, the standard methods used by indigenous communities over long periods of time. The study also revealed that junior faculty members were more likely than senior professors to use locally generated knowledge. However, they were unlikely to receive support for doing so from senior faculty who evaluate them or within the larger academic system. Peer support was instrumental in enhancing faculty use of indigenous knowledge in teaching, research, and outreach. Peer support is one of the important reasons for documenting “compelling stories” of individuals who have overcome intellectual barriers and epistemological prejudices that have historically devalued and deemphasized knowledge generated outside the academy. The faculty featured in this video series serve as role models for peers who might some day want to bring back to students their own personal stories of encounters with indigenous cultures. However, for the time being, they can be encouraged to test the academic and personal waters by relying on respected colleagues who have worked successfully with local residents in unfamiliar cultural settings.

Why Indigenous Knowledge Matters

Indigenous knowledge matters in community engagement and scholarship because indigenous ways of knowing and other heritage knowledges are disappearing as a result of the devaluing of indigenous reality and a loss of the acquired wisdom of elders. Institutions based on traditional knowledge are also disappearing because of industrialization and Western notions of progress. Davis (2009) reminds us that the indigenous practices of traditional healers, farmers, or shamans that have been around for millennia are not “failed attempts at modernity” (p. 7). They have a lot to teach us about their world and about ours. Some post-colonialists, feminists, multiculturalists, sociologists of scientific knowledge, and those who refer to themselves as indigenous researchers argue that there is a wide global diversity in the conceptions of knowledge—of what it means to know, of what counts as official knowledge, and how that knowledge is produced (Ferguson, 2008; Pickering, 1992). De Sousa Santos, Nunes, and Meneses (2007), for example, argue that the production of knowledge is in itself a social practice, and as such all knowledges are situated (historically, politically, socially) and partial. These scholars argue against the monoculture of knowledge, an approach based on positivist notions of science, legacies of colonial and postcolonial relation, and global capitalism. They contend that indigenous peoples everywhere know a great deal about the environments in which they have lived for generations, and that this knowledge must be valued and taken into account in the planning and implementation of educational as well as development policies.

There is now a new awakening in the academy in which some social scientists support a perspective that argues against the monoculture of knowledge in favor of an ecology of knowledges, a perspective that embraces epistemological diversity and acknowledges the diverse world we live in (Barnhardt & Kawagley, 1999). Renewed interest in indigenous knowledge systems and practices is widespread and global (Nakata, 2002). According to Brokensha, Warren, and Werner (1980), the emergence of indigenous knowledge in the academy was triggered by ethnographic studies conducted in countries that were colonized by Europeans in the eighteenth century during their expansionist period. Through such studies, it was noted that prior to colonization some local people sustained themselves better when they utilized locally developed knowledge than was the case after political independence in the post-colonial era. In the aftermath of colonialism, the lingering vestiges of post-colonialism are perceived as having negatively transformed some of the

colonized nations to the extent that they have lost the vitality of their agricultural and other survival systems (Semali & Kincheloe, 1999; Katz, 2004).

These perspectives are not new revelations by any means. Social historians have for decades engaged in reconstruction of the pre-colonial past as an orientation to the problems of society and social change. Social history emphasizes social structures and the interaction of different groups in society. This theoretical approach examines the lives of everyday people—their experiences and beliefs—and can help us gain insight into historical events. Social history uses many historic narratives and oral histories to give a descriptive overview of how a population was affected by history. Narratives are the building blocks of social history, but all historic narratives, oral histories, and social history are enriched by context or knowledge of the events that shaped individual experiences. When social historians look at indigenous knowledge (Cohen, 1985), they see it as part of the lives of everyday people, their experiences and beliefs—which can help us gain insight into historic events such as the pre-colonial past, enduring institutions, customs, household organization, inheritance, marriage, livestock keeping, social formations, modes of production, customs, ecological systems, and the consequences of demographic effects of migration as they challenged the authority of rulers and their extended family (Tilly, 1967). This broad understanding of indigenous knowledge is important as we position the AcademIK Connections videos as an affront to the monoculture of knowledge in the academy.

Since 1995, Penn State’s Interinstitutional Consortium for Indigenous Knowledge, or the IK center, has pioneered efforts to challenge the monoculture of knowledge, moving toward integrating indigenous knowledge across the curriculum and attempting to create a forum where faculty, staff, and students can network with others who share a vision of the academy as a place where multiple ways of knowing are valued and respected (Semali & Marezki, 2004). For the IK center, engaging the academy is about addressing both academic and societal challenges and extending the university’s knowledge and expertise to solve problems affecting communities by utilizing the indigenous knowledge that resides within those communities. A land-grant institution that prides itself on being an engaged university, with a full agenda of research, teaching, and community outreach programs, needs to take seriously the question of how local, traditional, and indigenous

knowledges can enhance each of its functional areas. For example, can knowledge of the flora and fauna of forests and streams that has been generated by its hunters, fishers, and sangers¹ fill in the gaps in ecological research studies? Can students in a community nutrition class be informed by the dietary coping strategies of those low-income households whose children prosper where others fail to thrive? Can the stories passed down by seniors be used to harness the social and educational capital of decaying Rust Belt cities or spark the interest of children in blighted urban schools? Can we ensure that learners' school curricula are inclusive of indigenous social and cultural history and informed by the full scope of ideas and events that have shaped and continue to shape human growth and development? Can students, communities, and academic institutions learn from indigenous knowledge innovations? Can classrooms become open marketplaces of diverse ideas and pragmatic discussions of alternative criteria of validity?

Collectively, these questions illustrate why indigenous knowledge matters in community engagement and scholarship. As a way of initiating on-going discussions that address these educational challenges, we can employ the AcademIK Connections video series. In its attempt to bridge community engagement and scholarship, a university must address the devaluing and lack of responsiveness to indigenous knowledge by taking seriously *Returning to Our Roots: The Engaged Institution* (Kellogg Commission, 1999). This report offered a number of recommendations and a model to transform the university's historic mission of teaching, research, and service into a forward-looking agenda of learning, discovery, and engagement (Spanier, 2004). In light of Penn State's commitment to the Kellogg Commission's recommendations, the Humanitarian Engineering and Social Entrepreneurship (HESE) Program and the IK center have collaborated to produce the AcademIK Connections video series.

BRINGING INDIGENOUS KNOWLEDGE INTO THE CLASSROOM

Globalization has increased the pressure on educational institutions to prepare students for life in an increasingly connected and borderless world. Universities have responded to this "flattening" of the world by diversifying and internationalizing

¹Sangers are Appalachians who collect wild ginseng roots for extra income. They are very knowledgeable about where the ginseng grows and at what stage it should be harvested. It is valued for its medicinal properties.

their curricula. Merryfield (1997) summarizes the definitions of major scholars to provide an eight-element framework for global education. These elements are human beliefs and values, global systems, global issues and problems, cross-cultural understanding, awareness of human choices, global history, acquisition of indigenous knowledge, and development of analytical, evaluative, and participatory skills. There is a growing recognition of the importance of integrating into the curriculum the socially and globally relevant themes of indigenous knowledge if we are to effectively educate students for the globalized world (Battiste, M., & Henderson, J., 2000; Kirkwood, T.F., 2001). For example, sustainability is one topic where we can draw from the wisdom of indigenous people and meld it with scientific know-how to develop effective solutions to this shared global challenge.

Sustainability is considered to be the keystone to our survival and future development. Increasing pressures on global resources and deteriorating environmental conditions make it imperative for universities to embrace sustainability and systematically incorporate it into academic research, outreach, and operational functions. Indigenous knowledge is gradually being re-evaluated and considered as an inspiring source of strategies for sustainable development (Fernando, 2003). Duarte Morais, a colleague in the Department of Recreation, Parks, and Tourism Management, reminds us that over the course of human history, many indigenous communities have thrived without damaging or compromising the natural environment. They have respectfully utilized resources without impairing nature's capacity to regenerate them (Mehta, Semali, Fleishman, & Marezki, 2011). Their knowledge shaped their values and relationship with the environment and guided their actions. The focus on sustainability is an opportunity for exploring the relationships and attitudes of indigenous communities toward the environment and the lessons they can teach us about sustainability.

One of the video clips in the AcademIK Connections series features Bruce Martin, an IK educator. He discusses the Ojibwe language and worldview in his video clip. He explains that the Ojibwe language is a language of verbs and a language that's animated and reflects a philosophy and worldview. For the Ojibwe people, the world is alive in ways that most Westerners can't imagine. Rocks, for example, are alive and have "spirit," and in the Ojibwe worldview, you can have a relationship with anything that has a spirit. This

animated worldview changes the sense of belonging and the place of humans in the world. For most people living in Western countries, that kind of relationship with the world around them does not exist. The implications of this different worldview are very significant, one example being respect for nature and all its constituents because they are as alive and as real and significant as we are. Indigenous knowledge can help students develop sensitive and caring values and attitudes to maintain a judicious balance between their personal needs and nature's needs, and build a sustainable future.

Student Engagement with Indigenous Communities

The engineering profession is one of the most global professions with international design teams developing technologies for international markets. The university's strategic focus on experiential, cross-disciplinary, international education with an entrepreneurial orientation is being harnessed by academic programs to develop technology products designed to help disadvantaged people in developing countries. Several universities have developed academic programs that engage students in the design and implementation of appropriate technologies for indigenous communities in resource-constrained environments. Besides academic programs, many universities also have local chapters of student organizations like Engineers without Borders that engage in service-learning and development projects around the world. Indigenous knowledge has immense value for entrepreneurs and problem-solvers seeking solutions to community problems. In order for community solutions to be successful and sustainable, they must be designed with the intimate engagement of all stakeholders.

There is no data available on the importance placed on indigenous perspectives and knowledge by the many students who travel to remote communities bringing with them their preconceived projects and technological solutions to help local residents solve what the students have determined to be pressing local problems. How can universities prepare students to be socially and globally conscious leaders and entrepreneurs that respect and appreciate indigenous knowledge? How do we bring the perspectives of indigenous people with different epistemologies and philosophies of life into the classroom? For whose benefit are we engaging in outreach projects? If it is for the community's benefit, how can students ignore the vast store of knowledge that its residents have accumulated over time? If we want students to

have an appreciation for indigenous knowledge, it is important to make the information in sociology and anthropology textbooks "come alive" for them. Also, how do we expand international educational experiences to include the vast majority of students rather than just a select few? We need to develop innovative ways to provide both travel- and non-travel-based experiences that expose students to indigenous knowledge.

The HESE Program brings together students and faculty from various disciplines to develop innovative and practical technology-based solutions to address challenges facing marginalized communities. The quest is for solutions with the four hallmarks of sustainability—technologically appropriate, environmentally benign, socially acceptable, and economically sustainable. Students develop their solutions in collaboration with in-country partners. They travel to these communities to field-test and implement the technologies and work shoulder-to-shoulder with community partners. Students have been astonished by the wealth of knowledge possessed by local people, whom they had naively believed to be uneducated and illiterate. These transformational educational experiences have encouraged students to ask why it is that certain types of knowledge are more highly regarded than others. Students question the hierarchy of knowledges and the processes through which Western science and epistemologies position themselves as neutral, universal, and non-hegemonic, while seeking to invalidate and devalue other ways of knowing.

While some students are able to appreciate the importance of indigenous knowledge, others find it too complicated for them to understand because they lack the appropriate background and cultural sensitivity. Under these circumstances, very little actual indigenous information is accessible to them. AcademIK Connections hopes to build this cultural capital among students and help them connect and collaborate with indigenous people in symbiotic and meaningful ways. This orientation will enable the student teams to work closely and harmoniously with indigenous communities, leveraging local indigenous knowledge and resources to create sustainable value that upholds the fundamental philosophy of self-determination.

AcademIK CONNECTIONS VIDEO SERIES

Stories are the universal way of teaching and learning. It is common among indigenous cultures to use stories to convey events in words,

images, and sounds. Stories or narratives are used in every culture to entertain, educate, and preserve cultural traditions as well as instill community-specific moral values. Stories are a tool that is both coherent enough to reach out to individuals across cultures and at the same time pliable enough to let people draw their own inferences about the origin of knowledge that fits their unique context. The AcademIK Connections video stories show how faculty members stumbled upon, discovered, or leveraged indigenous knowledge while working with a community to address its challenges. We believe that such stories can help overcome the resistance of students and some faculty members to critically examine dominant ideological assumptions that owe their genesis to the privilege enjoyed by Western models of thought.

The video series showcases stories told by individuals who, regardless of their discipline, research interests, or experience, are known as persons who consciously and respectfully employ indigenous knowledge in their academic activities. The themes of the 12 videos are provided in Table

1 while the stories themselves are summarized in a previous conference publication (Mehta, Semali, Fleishman, and Maretzki, 2011). The generally accepted assumption communicated through these stories is that new approaches should not replace indigenous knowledge, but rather should systematically build upon the knowledge base that has been produced by generations of indigenous communities to address local concerns.

AcademIK Connections in the Classroom

AcademIK Connections is an innovative way to introduce indigenous knowledge concepts into classroom settings. The video clips will enable students and faculty to objectively consider the source of their own knowledge, compare and contrast indigenous ways of knowing with Western, academic ways of knowing, and discuss the value of each epistemology. Our team has developed the video series into learning modules, where each video forms the nucleus of a rich discussion for a typical 50–75 minute class. The learning modules employ a format adapted from other media materials designed

Table 1. Table of Video Clips

Name and Affiliation	Content of the Video
Ted Alter, Agricultural, Environmental and Regional Economics	Defining indigenous knowledge and discussing alternative epistemology. Also, other speakers discuss the Indigenous Knowledge Center at Penn State and the objectives of the video series.
Madhu Suri Prakash College of Education	Slow Food Movement, Happy Planet Index
Ladislaus Semali Comparative and International Adult Education	Representation of Africans by the media. Concepts of poverty and happiness. Food security and rethinking science education.
Duarte Morais, Recreation, Parks, and Tourism Management	Self-determination and tourism development. Portrayal of indigenous peoples.
Carolyn Sachs, Agricultural Economics and Rural Sociology	Stories of women as keepers of agricultural knowledge in many developing countries.
Fran Oseo-Asare, Entrepreneur, Betumi.com (Indigenous Foods of Africa)	The myth of African cuisine and how urbanization is hurting the image of agriculture.
Clement Abrokwa, African Studies and Conflict Resolution	How music represents life and how it is used to resolve conflict in African villages.
Bruce Martin, College of Education	How the Ojibwe people connect language and culture, and other ways of knowing
Khanjan Mehta, Humanitarian Engineering and Social Entrepreneurship Program	Telemedicine and the importance of traditional healers. Role of social capital and trust in developing appropriate business models for developing communities.
Audrey Maretzki, Food Science and Nutrition	The story of nutribusiness: A modern food product made from traditional Kenyan food crops.
Michael Jacobson, Forest Resources	Successful businesses based on traditional African flora: Baobab tree, Fordoun Spa, and Amarula.
Mary Marete, Graduate Student, Agricultural Economics	Stories related to agriculture from her childhood in Kenya
David Ader, Graduate Student, Rural Sociology and Demographics	Perspective on poverty gleaned from an elderly Mapuche man in Chile
Mary Chandy Vayaliparampil, Graduate Student, Educational Theory and Policy and Comparative International Education	Traditional education system (Guru-shishya Parampara) and its relevance to modern education

for teachers. The modules have the following sections:

1. About the Video Clip: A brief summary describing the speaker and the theme of the video clip.

2. Key Concepts: Definitions of key terms and an explanation of basic concepts related to the theme of the video.

3. Before Watching: This section provides 2–5 points for students to consider before watching the video clip. Students can be expected to develop their responses to these points and be prepared to discuss them in class.

4. After Watching: There are three sub-sections: a) discussion topics related to the video, b) related indigenous knowledge topics for further exploration, and c) resources and interesting intersections. The discussion topics can be used or adapted by instructors for in-class participation. Encouraging students to connect indigenous knowledge with Western knowledge is an explicit educational outcome of this video series. The learning module connects the topics discussed in the video to the students' past experiences as well as to other topics and disciplines.

5. References: A bibliography of the sources used to develop the learning module.

The video series and the learning modules can serve as a self-study resource for a broad array of learners with different educational interests and needs. The video series can also be used by students and faculty working on international research and outreach endeavors and might result in expanding research and outreach methods beyond positivistic approaches toward the development of truly sustainable solutions to community challenges that lead to self-determined development.

Conclusion

In this paper we have introduced AcademIK Connections, a set of 12 short videos that were developed to address an imbalance that exists in the academic environment between knowledge generated within the academy based upon positivistic epistemologies and knowledge generated through observation, experience, and experimentation that occurs in the cultural context of communities. We identify this locally generated knowledge as *indigenous* knowledge. Positivistic, research-based knowledge, has for a variety of social, political, economic, historical, and cultural reasons that are discussed in this paper, come to be viewed in academic circles as the gold standard, while indigenous knowledge is often viewed with skepticism, if not contempt. The inherent dichotomy between the dominant perspective of academic researchers and those

involved in community development is often overlooked in the classroom. As a consequence, students, armed with their laboratory-generated knowledge, find themselves in the field where the development perspective of “what will work in this village” is more immediately critical than a theory-based understanding of the biological or physical mechanisms that are “causing” the problem. AcademIK Connections attempts to bring a sense of humility into the classroom by creating a brief point in time and space where the value of the indigenous knowledge residing in local communities can be acknowledged jointly by professors and students in a safe, intellectually challenging environment. Students whose minds have been opened to other ways of knowing and engaging will, we believe, be better prepared than their peers to engage with local communities and meld indigenous and Western knowledges to address developmental challenges.

Our team is currently engaged in the development of a complementary video series that features indigenous voices and worldviews. In 2011, videos were shot in Tanzania that related to health and healing, leadership, motherhood, grassroots innovation, and food preservation practices. Additional community interviews in India, Kenya, and Nicaragua occurred in summer 2012. We welcome comments on AcademIK Connections and suggestions for making it a better tool to prepare today's students for making a difference in a complex world beset by many challenges. But most of all we welcome stories that illustrate the way in which indigenous knowledge has enriched and complemented the activities taking place in your classrooms, laboratories, and community settings.

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Editor's Note

The learning modules can be accessed at www.sedtapp.psu.edu/humanitarian/academIK.php. The video clips described in the text may also be viewed at: <http://www.youtube.com/playlist?list=PL61AFA3EF180F626C>.

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