Creating Knowledge

Historically, Indian people and their institutions have faced vast political, social and economic challenges. However, as resilient peoples, we have never forsaken our cultures, languages, beliefs and values.

Accordingly, tribes devise programs and projects that draw from core understandings—for example, many complex programs integrate both language and culture with schooling and academic development. In developing programs, we seek guidance from our respective cultures and values. Evaluation of our programs should also look to our Indigenous ways of knowing to guide our work.

Fort Belknap College Language Camp

Testing Our Understandings

From an evaluation perspective, in developing programs, we are essentially making a set of understandings. That is, we have reason to believe that a certain combination of activities, staffing, and resources will produce a set of expected outcomes. In other words, we have an understanding that if we do A (the program), we will get B (the results or program outcomes we want to achieve). Our set of understandings is similar to a hypothesis. As the program is implemented, we will discover whether or not our understandings are correct. Implementing the program is similar to testing the hypothesis; evaluation is the process used to learn whether our assumptions are correct that doing "A results in B."

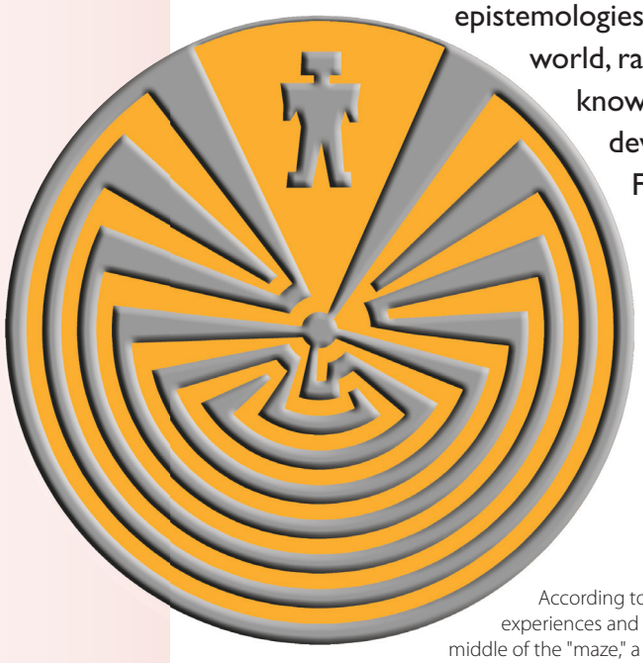
In the Western tradition, testing a hypothesis is an aspect of knowledge creation. Testing a hypothesis is research. Although we may not see ourselves as researchers, in many ways, we are: as developers, implementers, and evaluators of programs.

An important principle in the Indigenous Framework is the recognition that evaluation is integral to the program. Just as the basket weaver creates the inner and outer walls simultaneously, evaluation should be woven into the program from its inception so that it is carried on throughout its implementation.

Evaluation is the means by which we arrive at an understanding of the program to determine what works, why, and provides a full description of what happened.

Let's go back to the basket metaphor. As the tension between the inner and outer walls of the basket gives it strength and integrity, evaluation linked to implementation provides the knowledge needed to produce strong programs that address the challenges facing our schools and communities. An important principle in the Indigenous Framework is the recognition that evaluation is integral to the program. As the basket weaver creates the inner and outer walls simultaneously, evaluation should be woven into the program from its inception so that it is carried throughout its implementation.

Another principle is that evaluation is knowledge creation. Indigenous evaluation should be based on our traditional epistemologies or ways of knowing about the world, rather than Western conceptions of knowledge creation. A first step in developing an Indigenous Evaluation Framework is to understand our own ways of explaining what is known. In Western parlance, these are known as epistemologies.



According to O'odham oral history, the labyrinth design depicts experiences and choices we make in our journey through life. In the middle of the "maze," a person finds their dreams and goals. When one reaches the center, we have one final opportunity (the last turn in the design) to look back upon our choices and path, before the Sun God greets us, blesses us and passes us into the next world.

Indigenous Ways of Knowing

In the basket weaving story, one of the first lessons is that all things are connected and cannot be separated from each other. In tribal ways of knowing the world, there is a profound sense of relationship and recognition that all creation possesses spirit and energy. Indigenous scholars have written extensively of the epistemologies that inform our sense of science (one aspect of knowledge creation) and our ways of interpreting the natural and spirit world.

Student Senate President Andrea Simons Making a Parflesche Design, Fort Peck Community College

Foundations of Indigenous Knowledge Creation

Increasingly, Indigenous scholars are discussing Indigenous knowledge as it is viewed and experienced within a non-Western way of knowing. Marlene Brant-Castellano, (Mohawk of the Bay of Quinte Band in Canada) describes three over lapping categories of Aboriginal knowledge:

- **Traditional Knowledge**: handed down through the generations—creation stories, origins of clans, encounters between ancestors and the spirit world. This knowledge can also be based on the history and experiences of the people. This knowledge reinforces values and beliefs.
- **Empirical Knowledge**: gained through careful observation from multiple vantage points over extended time.
- **Revealed Knowledge**: acquired through dreams, visions and spiritual protocols.[3]

Northwest Indian College Art Show

[3] Brant-Castellano, M., "Updating Aboriginal Traditions of Knowledge," in *Indigenous Knowledge in Global Contexts: Multiple Readings of Our World*, G. J. Sefa Dei, B. L. Hall, D. Goldin-Rosenberg (Eds.), University of Toronto Press, Toronto, 2000, (adapted from list on p. 23).

Ninn nas taa ko (Chief Mountain), Blackfeet Reservation

Vine Deloria (Standing Rock Sioux) noted that: **"The old people experienced life in everything."** In his essay, "If You Think About It, You Will See It Is True," he explains that knowledge itself has life and moral purpose. The energy or spirit permeating throughout the universe forms connections and "participates in the moral content of events, so responsibility for maintaining the harmony of life falls equally on all creatures."[4]

He further explains:

> The old Indians were interested in finding the proper moral and ethical road upon which human beings should walk. All knowledge, if it is to be useful, was directed toward that goal.
>
> Absent in this approach was the idea that **knowledge existed apart from human beings and their communities**, and could stand alone for 'its own sake.' In the Indian conception, it was impossible that there could be abstract propositions that could be used to explore the structure of the physical world.
>
> Knowledge was derived from **individual and communal experiences in daily life**, in **keen observation of the environment**, and **interpretive messages that they received from spirits in ceremonies, visions, and dreams**.[5]

Indigenous knowledge relied on interpreting our experiences of which all are valuable:

> We cannot 'misexperience' anything; we can only misinterpret what we experience. Therefore, in some instances we can experience something entirely new, and so we must be alert and try not to classify things too quickly.[6]

In his book, *Native Science: Natural Laws of Interdependence*, Gregory Cajete (Tewa), a Native scholar who writes about

[4] Deloria, Jr., V., *Spirit and Reason: The Vine Deloria, Jr., Reader*, Fulcrum Publishing, Golden, CO, 1999, p. 49 & 52. (emphasis added)
[5] Ibid, p. 44.
[6] Ibid, p. 41.

Indigenous ways of knowing, explains that Native science (i.e., Indigenous knowledge) is related to what Western science calls environmental science and is based on **participation with nature**:

> Participation provides the grounding for the way of Native science at all levels and in all expressions. The dynamics of this participation are founded on an ancient human covenant with plants, animals, the forces of the earth, and the universe. It is the depth of our ancient human participation with nature that has been lost and indeed must be regained in some substantial form in modern life and science. The cosmological and philosophical must once again become 'rooted' in a life-centered, lived experience of the natural world.[7]

When we shake hands in greeting and departing, we are achnowledging our relationship with one another.

Albert White Hat, Sr. (Lakota), a language and cultural scholar, described how this relationship with the natural world is embedded in Native languages. He also reminded us about the moral and ethical uses of knowledge and the need for balance in all aspects of our life. In Reading and Writing the Lakota Language, he further elaborates:

> Elders reminded us that the language is *wakan* (very powerful). We use it to communicate with the other nations: the Deer Nation, the Eagle Nation, the Buffalo Nation, and so forth. We talk to the *wamakaskan* (living beings of the earth) through spiritual communications. Language must be taught with this in mind. Second, when teaching the language to younger people, both its good and evil powers must be taught. If you teach only the good, children will be ruined when they become adults. They need to understand that language contains great power. It can be used to injure a person's feelings or to compliment their achievements. It can be used with evil intent or to honor and bless. **Young people need to understand that language contains the power to give life or take it away. As a result, it must be used respectfully.**[8]

[7] Cajete, G., *Native Science: Natural Laws of Interdependence*, Clearlight Publishers, Santa Fe, NM,1999, (paraphrased from his list on p. 4-5).
[8] White Hat, Sr., A. , *Reading and Writing the Lakota Language*, The University of Utah Press, Salt Lake City, UT, 1999, p.4. (emphasis added)

Coming-to-Know Process

Gregory Cajete notes that most Indian languages did not have a word for education. Rather, learning was expressed as an active coming-to-know process, emerging as a journey of observing, experiencing, and interpreting.

> Knowledge in the Western world is sequential and builds on previous knowledge, but in Native traditions, guides or teachers are necessary. Building on prior learning and traditions is never a direct or linear path. Instead, Indigenous science pursues a meandering path around things and over obstacles, in a roundabout way. In the Western mind-set, getting from point A to B is a linear process. In the Indigenous mind-set, arrival at B occurs through fields of relationships and establishment of a sense of meaning, a sense of territory, a sense of breadth of the context. The psychologies of thinking and approach differ. [9]

From an Indigenous perspective, all of us as a community of learners become creators and co-creators of our knowledge. This same process is relevant for Indigenous evaluation, it is as a coming-to-know.

Manulani Meyer, a Native Hawaiian philosopher, outlines nested layers of knowledge that illustrate the creation and co-creation involved in coming-to-know. She notes that the lowest and smallest layer is the objective truth—observable facts of what we see.[10] However, this truth is understood only by our interaction with the observable, by what is known through our subjective relationship with the world, or the subjective truth. This subjectivity is our experience and relationship with the world.

Nested Layers of Knowledge

[9] Cajete, G., *Native Science: Natural Laws of Interdependence*, Clearlight Publishers, Santa Fe, NM,1999, (paraphrased from his list on p. 79).
[10] Based on "Energy, Knowing and Disciplining the Mind," an unpublished paper by Manulani Meyer, and personal conversation with the author in 2005.

The final layer in which objective and subjective truth is contained is culture, a transformative truth in which we make sense of the system in which we are engaged. In this framing of knowledge, subjective truth is on a higher plane than objective truth. This view supports the Indian conception described by Vine Deloria (previously quoted):

> Knowledge was derived from individual and communal experiences in daily life, in keen observation of the environment, and interpretive messages that they received from spirits in ceremonies, visions, and dreams.

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Vine Deloria, 1999

Often, the opposite is true in the evaluation methodologies we are asked to undertake by funders. In Western construction, often the objective truth is placed on a higher plane and it is assumed that this truth can be extracted from context and setting. We reject that notion. This is not to argue that some aspects of methods based on this objective framing cannot be used when we evaluate, but in their use, we do not accept the assumption that knowledge can be objectified or extracted from its setting and our relationship to the setting.

Deloria writes that knowledge and methodology from the Lakota and Western scientific perspectives appear to be at opposite ends of the spectrum with Western methods being the extreme of objectivity and the Indian view representing the extreme of subjectivity. He argues that there may be a middle ground between these two; however, he maintains that whatever knowledge is called forth in this middle ground requires a moral grounding.

Oglala Lakota College Nursing Graduates

A Living Entity

In keeping with the living universe, knowledge itself is a living entity. As a living entity, knowledge is connected with the breadth of

experience that crosses dimensions of reality. It engages with the physical as well as the spirit world and with the world of our ancestors. We must recognize that what we come to understand as Indigenous knowledge does not always connect to Western conceptions of reality as something that is observable and measurable. Ceremonies and cultural protocols connect us to the spiritual elements of our surroundings as well as to ancestors whose energy is still with us. As program implementers and evaluators, we honor these inter-relationships through thoughtful use of our own protocols for ceremony, blessings, and celebration.

The multi-dimensional aspect of Indigenous knowledge and its contrast with Western thinking is illustrated by a story told by a focus group participant. The following story reminds us that in considering and implementing Indigenous evaluation, we have to acknowledge and embrace our traditional knowledge.

We, the Tlingit, have a concept, *Haa Shagóon* and *Haa Shuká*, that refers to our ancestors and to those who will come after us. We acknowledge that our ancestors are also animals and other wildlife. This ideology affects the way we see and interact with the natural world. For example, we have a special relationship with *Yéil* or Raven whom we recognize as both a benefactor and sometimes a trickster. One day I was driving to school thinking about my class in which I would be talking about oral traditions. Suddenly, *Yéil* flew in front of my car. If another Tlingit had been with me, we might have made some joke about Raven, but instead I thought to myself, how do I look at Raven? Instead of seeing him as a supernatural being, I tried to think of him in biological terms. I almost became physically ill trying to think of him in this way. It really hit me. I hadn't realized the impact of Western knowledge. I was unable to reconcile my traditional view of Raven with that of Western knowledge.

Implications for Framing Indigenous Evaluation

In their article, "Indigenizing Evaluation Research," Robertson, et al., noted that on the Pine Ridge reservation in South Dakota, tribal spiritual leaders explained to an evaluation team that the Lakota always engaged in evaluative activities. They use the word *wopasi* (inquiry) to describe evaluation. Related to this is the phrase *tokata wasagle tunpi* (something you set up to go into the future). A Menominee who participated in a focus group explained that in his language a translation of the concept of evaluation would be similar to "tomorrow you will know what you learned today."

Red Lake Drum Camp

Indigenous epistemology influences the Framework for Indigenous Evaluation in a number of ways.

- Although we care about how well a proposed program meets defined goals and objectives, we recognize that it does not operate in a vacuum—it works in relationship with many factors within its immediate setting and the community.
- Evaluation is responsible for capturing the journey of the program, which may be more meandering than we initially intended.
- Evaluation creates knowledge through careful observation and constant reflection. It interprets what we are coming-to-know, the lessons learned and insights gained.

These lessons enlarge the program experience and provide a proper moral and ethical framing for the knowledge gained through experience. It aligns evaluation with Vine Deloria's explanation of the function of knowledge:

> The old Indians were interested in finding the proper moral and ethical road upon which human beings should walk. All knowledge, if it is to be useful, was directed toward that goal.

"The old Indians were interested in finding the proper moral and ethical road upon which human beings should walk. All knowledge, if it is to be useful, was directed toward that goal."

Vine Deloria, 1999

Reference

See Readings, "Indigenizing Evaluation Research."

Characteristics of Indigenous Evaluation

- *Has use and moral purpose*
- *Come to know within a context*
- *Subjective reflection*
- *Observation and relationship*
- *Focus on interpretation*
- *Drawing lessons, not judging*
- *Is not time-bound*
- *Everything learned has value*

The following describes characteristics of Indigenous knowledge that influence our approach to evaluation.

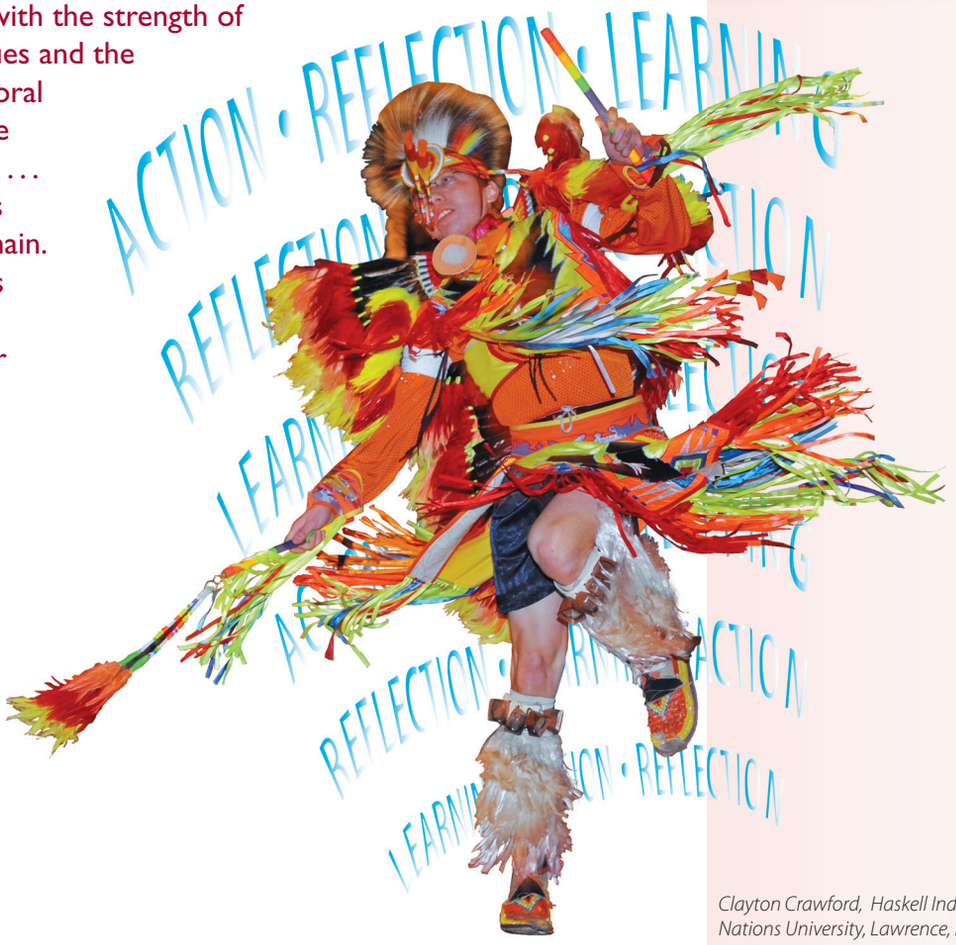
- As a tool for guidance, knowledge has function, usefulness, and a moral purpose.
- The truth of what we come-to-know is found in understanding the program within its context, which is multi-dimensional and complex.
- Knowledge is created through keen observation of program implementation and the relationships that result from putting a program into action.
- We come-to-know through subjective reflection on what we observe and experience and through reflection, creating the story we have to tell as a result of the program. And, as in most Indian stories, lessons are learned through the telling.
- We accept that things unfold in the ways that they happen. We do not attempt to manipulate as much as we attempt to interpret.
- Evaluation as knowledge creation in an Indigenous framing is about interpreting and learning and less about judging or assessing, although Indigenous evaluation would lead us to draw lessons from what we have learned.
- We understand that not all can be known or understood fully within the confined time frame of a program's implementation. As an elder explained, "You will know tomorrow what you learned today."
- We believe that knowledge gained through observation and reflection is of value beyond the program itself. As co-creators of knowledge through understanding the natural progression of the program, everything we do has importance.

Indigenous evaluation is integral to the action of the program. Through evaluation, reflection is constantly occurring, and it is the relationship between action and reflection that leads to learning and moving forward. The interaction is woven together in a spiraling motion of action, reflection, and learning.

Indigenous Evaluation Spiral—The interaction of action, reflection and learning.

Reclaiming our Indigenous epistemologies is essential to Indian people, according to Albert White Hat, Sr. On the importance of teaching the Lakota language, he said:

> Our language was invaded just as our lands were, and so also our ways of knowing. We need to bring back our ways of knowing and our languages with the strength of its spiritual values and the power of its moral force, just as we fight to reclaim … the sacred sites within our domain. Our Indigenous knowledge is *wakan*. It is our bloodline.[11]



Clayton Crawford, Haskell Indian Nations University, Lawrence, KS

[11] White Hat, Sr., A., *Reading and Writing the Lakota Language*, The University of Utah Press, Salt Lake City, UT, 1999, p.11, (paraphrased).

FRAMEWORK

Creating Knowledge