

Perceptual Styles of Native Americans and Alaskan Native Students

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ABSTRACT

This study administered the Dunn, Dunn and Price Learning Styles Inventory (LSI) to Native students in grades 6-12. The sample was derived from students attending non-reservations public schools in Oklahoma, a Bureau of Indian Affairs (BIA) reservation school in Minnesota and a public charter school in Alaska. When perceptual styles (auditory, visual and tactile/kinesthetic) scores were analyzed it was found that, unlike their non-Native counterparts, the majority of Native students, regardless of tribe, do not have a dominant or strong perceptual style preference. This finding reflects that very different teaching strategies are required for the majority of Native learners.

For clarity, the term "Native" will be used when referring to the sample group as a whole. The Oklahoma sample will be referred to as the Cherokees, the Minnesota reservation group as the Ojibwas and the Alaska group as the Alaska Natives.

SAMPLE

The sample for this study included three subsets of students in grades 6-12. The first subset (N=1,568) consisted of students from 20 schools located in the 14-county governmental area of the Cherokee Nation of Oklahoma. All attended public schools. This area is predominately rural. The second subset (N= 49) was drawn from Ojibwa students attending the Circle of Life School near located near Mahnomen, Minnesota. The school is operated by the BIA and is located the White Earth Indian Reservation. The third subgroup (N= 135) was comprised of Alaskan Native students attending the Effie Kokrine Charter School in Fairbanks, Alaska.

METHODOLOGY

In each setting, teachers administered the Learning Styles Inventory (LSI)(Dunn, Dunn & Price, 1975, 1978, 1979, 1981, 1985, 1986). Individual profiles and school summaries were provided to each school after testing.

The LSI uses dichotomous items for self testing and produces an individual profile for each participant. The LSI reports a consistency key to reveal the accuracy with which each respondent has answered. The results as represented on the individual profile are reported to indicate intensity of preference. The intensity scale is scored from 20 – 80. With regard to perceptual styles, scores of 20 – 40 indicate a strong non-preference. Scores ranging from 60 – 80 indicate a strong preference.

The LSI test questions regarding perceptual styles are grounded in the Dunn & Dunn definitions of perceptual style which is based on a 75% factor with a 45 minute class reference. Auditory refers to being able to recall approximately 75% of what is heard in a 45 minute class. Visual recalls 75% of what is seen (mostly text), tactiles recall 75% of what is touched, kinesthetics recall 75% of content involving their muscles. (Dunn & Dunn, 1992).

STATISTICAL METHODS

Only arithmetic methods were needed to calculate number and percentages of preference.

Results

The majority of Native students had no strong preference (60 – 80) for any perceptual style. The percentage of students with no strong preference varied little between groups. By group, 52% of Cherokees, 52% of Ojibwas and 56% of Alaskan Natives recorded no strong preference.

DISCUSSION

The lack of a dominant preference is not found in the majority of the non-Native population. The majority of non-Native students have at least one strong preference (scoring 60 or above on the LSI) and frequently have two or more strong preferences. (Dunn & Griggs, 2003; Dunn, R., 2006). Students typically identified as “gifted and talented” are significantly more likely to have at least two perceptual strengths, one of which is either auditory or visual. (Dunn & Griggs, 2003). When consulted about the finding of a lack of any strong perceptual preference among Native students, Dr. Rita Dunn remarked simply, “They will have trouble in school.” What Dr. Dunn perceived as a prediction is, indeed, a fact.

It may be easier to understand the significance of this finding by remembering what television channel reception was like before the arrival of cable and satellite transmission. Not

all channels were received equally as well. Variables such as location, time of day, weather and antenna type all influenced the reception clarity of the limited number of channels available.

Perceptual styles are much like channel reception during the early days of television.

Just as with the channels on early television, reception on the difference perceptual channels varies with the individual. With the exception of physical limitations (deafness, blindness, muscular disability), all people get all four channels (auditory, visual, tactile and kinesthetic). What differs from person to person is the degree of clarity.

In the early days of television, the more difficult the information was to comprehend (e.g., the McCarthy hearings, the Kennedy assassination), the more likely the viewer was to tune into the channel with the best reception. The same is true of perceptual styles – the newer or more difficult the information, the more dependent the learner is on having a perceptual strength.

In the absence of a strong perceptual preference, the learner may switch channels frequently, but will still fail to find any channel delivering a clear reception. When a student has no strong perceptual preference, material to be learned must be presented through at least three different modalities for true learning to occur.

CONCLUSION

Presently, schools' core content is delivered primarily in an auditory or visual manner (Dunn & Griggs, 2003). While primary and elementary school teachers frequently broadcast lessons on the tactile or kinesthetic channels, these channels are almost never used by secondary school teachers.

Most non-Native students have a channel that gets strong reception. They can switch to that channel when they so desire. The majority of Native students do not have this option.

These Native learners must switch back and forth to get a complete picture of the lesson. If learning is to occur, there must be transmissions on at least three different channels for the majority of Native students.

Teachers need to incorporate a variety of perceptual methods (experiential learning, multisensory information packets, etc.) to increase achievement of Native students.

Multisensory instructional packets (MIPs) are a systematic way to present content with varied perceptual strategies. Ten studies in the use of MIPs all resulted in increased achievement for the learners. (Dunn & Griggs, 2003).

Teachers need to be taught instructional activities that appeal to each of the perceptual modalities. Of primary importance is that teachers learn to integrate a variety of modalities so that the learner who has no strong preference is afforded an equal opportunity to concentrate on, process and retain new and difficult information.

A large emphasis has been placed on writing curriculum that is culturally relevant for Native learners. If this curriculum is not accompanied by lesson plan suggestions that integrate a variety of perceptual style techniques, it will be no more successful than the standard curriculum found in traditional textbooks.

Research needs to continue in two areas. First, expansion of the research base to include Hawaiian Natives would be helpful in enlarging the base to all indigenous peoples, not just Native Americans and Alaskan Natives. Second, research testing the efficacy of using modalities to increase Native achievement must be conducted, explored and shared.

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