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Adapting Qualitative Instruments for Meaningful and Culturally Appropriate Data Collection in Schools with Indigenous Majority Populations

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In the introduction to *On Common Ground: The Power of Professional Learning Communities*, Rick and Rebecca DuFour and their co-editor Robert Eaker (2005) draw a significant conclusion about the common elements necessary for school change. In synthesizing the collective writings of the 21 authors whose manuscripts comprise their book, the Dufours and Eaker note that each of these leading experts on school improvement and change

> "supports the premise that students would be better served if educators embraced learning rather than teaching as the mission of their school, if they worked collaboratively to help all students learn, and if they used formative assessments and a focus on results to guide their practice and foster continuous improvement" (p. 5).

The Instructional Practices Inventory (IPI) process for profiling student engaged learning effectively supports those contentions.

The IPI was developed in 1996 by Bryan Painter and Jerry Valentine for use in Project ASSIST (Achieving Success through School Improvement Site Teams), a multi-year, comprehensive, systemic school reform initiative of the Missouri Center for School Improvement. The IPI was specifically designed as a process for profiling student engaged learning and facilitating faculty analysis of the profiles to promote instructional change and organizational learning. The IPI is a very practical system for understanding learning across an entire school that provides one form of data valuable when a school faculty begins the critical conversations described in DuFour's quote.

The development of the IPI instrument began with a review of the existing research and literature of the era. The findings were replete with insight about best instructional practices, but lacking in instruments and processes for collecting and analyzing practices for a school improvement initiative. Writers of that era noted the emphasis given to structural and organizational reform and the corresponding paucity of attention to instructional change (Newmann and Wehlage, 1995; Hopkins, Ainscow, and West, 1994). The review of the research and literature provided three broad categories associated with student learning characterized as student-engaged instruction, teacher-directed instruction, and student disengagement. The three broad categories were easy to understand but insufficient as the basis for the types of data that would be needed to foster teacher reflection and serve as a dependent variable to assess the impact of the school improvement initiatives of Project ASSIST.

The critical questions that emerged from the literature that formed the basis for the development of the Instructional Practices Inventory (IPI) in 1996 were:

- How do you collect data that will be accepted by faculty as a fair and accurate representation of student learning throughout the school?
- How do you depict those data in a simple, meaningful format for analysis?
- How do you engage all faculty members in study and reflection about the data that will lead to improved instructional practices throughout the school?
- How does a faculty know if their profiles are typical, excellent, or poor compared to profiles in other similar schools?

The IPI process, 1) focuses on student engagement and learning, 2) engages teachers in whole-faculty and small-group collaborative analysis, reflection, and decision-making of the profile data, and 3) provides extensive formative data so teachers can frequently monitor and adjust practices. The IPI process accomplishes two purposes

considered by most as critical to effective school improvement. First, the IPI produces a school-wide picture of student engaged learning that serves as a basis for faculty collaborative conversations, reflection, and instructional improvement. Secondly, the IPI serves as "gain" or "outcome" data for understanding whether school improvement initiatives have influenced student learning. These components of the IPI process support continuous change and collectively foster organizational learning.

The IPI categories that are coded during the IPI profiling process conducted in mainstream American schools, and common instructional "look-fors" associated with each category, are presented in Figure 1.

Figure 1
Instructional Practices Inventory Categories

Broad Categories	Coding Categories	Common Observer "Look-Fors"
Student-Engaged Instruction	**Student Active Engaged Learning (6)**	Students are engaged in higher-order learning. Common examples include authentic project work, cooperative learning projects, hands-on learning, problem-based learning, demonstrations, and research.
	Student Learning Conversations (5)	Students are engaged in higher-order learning conversations. They are constructing knowledge or deeper understanding as a result of the conversations. Common examples are cooperative learning, work teams, discussion groups, and whole-class discussions. Conversations may be teacher stimulated but are not teacher dominated.
Teacher-Directed Instruction	**Teacher-Led Instruction (4)**	Students are attentive to teacher-led learning experiences such as lecture, question and answer, teacher giving directions, and media instruction with teacher interaction. Discussion may occur, but instruction and ideas come primarily from the teacher. Higher order learning is not evident.
	Student Work with Teacher Engaged (3)	Students are doing seatwork, working on worksheets, book work, tests, video with teacher viewing the video with the students, etc. Teacher assistance, support, or attentiveness to the students is evident. Higher-order learning is not evident.
Disengagement	**Student Work with Teacher not Engaged (2)**	Students are doing seatwork, working on worksheets, book work, tests, video without teacher support, etc. Teacher assistance, support, or attentiveness to the students is not evident. Higher-order learning is not evident.
	Complete Disengagement (1)	Students are not engaged in learning directly related to the curriculum.

The process for collecting and profiling IPI data must be consistently accurate per the coding categories to produce information that teachers view as fair and accurate in order for the data to be used as a basis for reflection and change. Inter and intra-rater reliability is critical to produce accurate and reliable data. The reflections, goals, and decisions based on data collected without establishing rater reliability may foster inappropriate changes in instruction, programs, or professional development.

Examples of these observational settings include classes with substitute teachers, special education teachers, student teachers, and multiple teachers working simultaneously with the same set of students, learning experiences outside the regular classroom, and learning experiences in the library or media center. Protocols are also established in the unusual situations where a definitive code is not apparent and describe how the observer can be consistent in such situations while creating the optimum profile.

Observers who collect IPI data using the IPI Rubric and protocols (appendix A) are expected to receive formal training in the use of the IPI process, including completion of an IPI observer training workshop and achieving a rater-reliability rating of .80 or higher.

Project ASSIST provided the initiative for the development of the IPI, but the utility of the instrument has grown well-beyond that reform effort. Hundreds of schools across the United States use the IPI process regularly to monitor student engagement, reflect on their instructional practices, and design professional development to address their defined issues. There are now thousands of IPI data collectors available in schools and state agencies to collect the profiles and facilitate faculty learning conversations. Leaders of schools that consistently engage faculty with IPI profile data by utilizing the

recommended steps for teacher engagement (appendix B) commonly attribute positive changes as a result of their efforts.

Ineffective Use of IPI Process

There is a fine line between the effective use of any tool or process for change and the misuse of that same tool or process. The IPI process is an easy victim for "potential misuse." Over the more than ten years of use, several concerns have surfaced as schools implement, or more accurately "try" to implement, the IPI process.

The most common concern is the collection of data by individuals who lack observer/coder reliability. In the IPI process the observer may make 150 observations on a given day and then repeat that process multiple times over the next year or two. Without established protocols and without a process to systematize the coding of the observations, including numerous "atypical" learning experiences that must be coded to an established protocol, the validity (accuracy) of the observers' codes and the reliability (consistent accuracy) will produce profiles with significant error and could cause faculty to reflect and make critical, long-term decisions based upon invalid or unreliable data.

A second concern is the ineffective use of the profiles. One ineffective use is the absence of engagement of the faculty in the study and use of the data. Principals and/or central office administrators collect the data, generate the profiles, study the profiles and then file them, or at best, use them in a state report. Either way, instructional change does not occur, therefore, student learning is not enhanced. Another ineffective use occurs when the faculty members do have a chance to see the data but their engagement with the data are not "facilitated" in a manner that produces results. They see the data, talk about it

for a while, and then move on to other topics during the faculty work session. Little, if any, change in instruction will occur.

The third concern, which is the basis of this study, is the use of the IPI in school settings which primarily serve historically disadvantaged indigenous populations. Specifically, the standard IPI rubric criteria may not be directly transferable to these schools. The use of inappropriate observational criteria and procedures is in effect a form of colonization by imposing standards of one population upon another for the purposes of measurement and evaluation (Smith, 1999). The use of the standard IPI in such culturally unique settings without adaptation may generate false data and lead to decision making and policy development that is inappropriate and potentially harmful to the population. Thus a need for a process to decolonize the instrument for use in culturally unique settings has been identified and must be addressed.

Decolonizing the IPI for use in Indigenous Schools

The status of recognized tribes as sovereign or quasi-sovereign nations, by some nation states, is a platform of political organization that provides the autonomy to tribes to construct and administer their schools as they choose. The student achievement goals, definitions of success, and the criteria used to determine success are likely to be unique to each school, community, and/or culture (Sharpes, 1982). Swisher (1994) and Pewewardy (2002) both emphasize the significance of the American Indian learning styles that are often unique and differ from the mainstream American schools. Therefore, the methods used to identify and measure the criteria for school success and student achievement must be based on the cultural and social capitals (Putnam, 2000) of the school, community, and/or culture. The development of a model and methods to properly collect data about

indigenous communities and schools, review the data, and develop findings and conclusions emerged as Decolonizing Methodology (Smith, 1999) in the late 20th century.

This instrument decolonization study is intended to explore and implement appropriate processes to adapt the rubric criteria for use in indigenous school settings. There is data that can be gathered with a properly adapted IPI that will illustrate and substantiate the argument that successful schools and students in indigenous communities structure success by integrating their unique social and cultural capital (Grande, 2004; Lomawaima, 2000; Putnam, 2000; Smith, 1999). Hirini Moko Mead (as cited in Diamond, 2003) sums up this critical nuance when he states

> When I look at my career, I think one of my contributions might have been to make people realize that Maori Studies had to be linked to Maori culture as a whole. You can't divorce Maori Studies from its cultural base. If you look at other university subjects like English, its part of the English speaking world – it came out of and produced the experts for that world – so Maori Studies should be doing the same. (Diamond, 2003, p.164)

It is the belief of this collaborative research team that assessment and evaluative instruments and processes can be utilized to collect data that is consistently reliable and valid when the instruments and processes are decolonized in collaboration with the indigenous school and community prior to implementation.

Purpose

The purpose of this research project is to explore decolonizing an observational assessment process and consider its utility for use in diverse school settings. To meet this research goal, the research team selected the Instructional Practices Inventory (IPI), a process for profiling student engaged learning for school improvement. The research

team will examine: 1) the vocabulary used in the instrument, 2) the criteria used to classify observations, 3) the recommended procedures for facilitating faculty analysis and problem-solving, and 4) the utilization of cultural interpreters from the target populations.

Methods

Following the foundational process of the IPI, the researchers' plan is to adapt the IPI process, the criteria for coding, and the dissemination of results within an individual indigenous school setting. Similarly to the original IPI process, the study will begin within a participating school with an introductory training session that will enable the researchers and participating faculty to develop appropriate criteria for coding according to the rubric.

Training sessions for IPI evaluators will include: 1) classroom based group training, 2) on-site practice application and observation, 3) post-training follow-up session(s), and 4) collected data analysis and interpretation (Valentine, 2005). We believe the training process of the IPI for use in schools with largely indigenous student populations should include cultural interpreters in the evaluator training process to review the vocabulary and the rubric observation criteria via discussion and practical on-site application to correctly identify and classify data. We also believe the cultural interpreters should review the process for facilitating faculty analysis and problem-solving, rendering recommendations appropriate to schools of indigenous minority populations.

To accomplish these goals selected educational leaders from schools with largely indigenous populations will be invited to participate in the IPI training process as used in schools setting that are not serving racially/ethnic student populations. Throughout the

training process, observers and presenters will maintain continuous dialogue and seek feedback from the educational leaders about the most appropriate language and processes to convey the concepts present in the IPI process. After modifications to the training process have been developed collaboratively by the trainers and the educational leaders providing feedback, the process will be used in the local school setting by the educators of the largely indigenous populations. Researchers will qualitatively and quantitatively analyze the degree to which the IPI process as modified produced positive results for the local school. In essence, did the modified process result in an instrument and a process for analyzing data that worked effectively in the largely indigenous population? Further, the research team will repeat this process in other largely indigenous populations to determine the degree to which adaptations made in one indigenous population are appropriate to another indigenous population.

Discussion

The researchers feel that once a process is designed and implemented to adapt the IPI for use in indigenous settings, the processes for analyzing the data and applying the results for the purposes of school improvement and student achievement can occur in a manner consistent with the use of the IPI in non-indigenous populations. Granted, there may be unique methods of dissemination of information that apply to individual school communities. Data gathered appropriately using criteria that are culturally specific articulate into more reliable and valid data for use in school improvement and enhanced student achievement.

IPI Profiles for Faculty Study, Reflection, and Goal Setting

In preparation to study the IPI data, the critical initial decision is "Who will facilitate the faculty study, reflection, and goal setting?" The most appropriate person to facilitate the faculty IPI work session is a member of the faculty who has been trained in the use of the IPI process. Even more advantageous is a school with two or more teachers who have the background to lead the discussion. All faculty members should be involved in the processes of data-profile analysis, reflection, and problem-solving. As is the case in most forms of reflection and change, there is no definitive answer as to who "must" be involved. Omitting some faculty from the discussions because they have supervisory, coaching, or other responsibilities is usually a mistake. Every effort should be made to schedule these critical instructional discussions at times when all faculty members can participate.

The individuals who must be supportive are the school principals or school leaders; but they must walk very gently in their leadership roles. The principal, who sees value in the use of the IPI profiles as a basis for faculty discussions, can easily be overly zealous about the value and may imply that he/she "wants" the faculty to make changes and to do so as soon as possible. In other words, when teachers view the principal as having ownership of the data, these teachers may not embrace the data. They may become critical of the implications and thus leave the principal in a position to dictate changes. This effort to find the "quick solution" to the complex problem may be well-intentioned by the principal, but generally results in little change in student learning. Principals must facilitate the use of the data to foster faculty-driven analyses and problem-solving. In so

doing they empower the teachers to use the instructional-learning data and cultivate organizational learning over time.

Once a faculty feels empowered, they learn together quickly and apply what they learn through their analysis of the IPI data to other forms of data and issues to be resolved for the school. The faculty are then on their way to becoming a learning organization. Teachers often grow as much from the discussions as from the conclusions. Through the discussions commitment to change evolves. Thus, the principals must navigate the fine line between being perceived as supportive or being perceived as mandating faculty change based upon the data. The motivation for faculty study and subsequent lasting change must be internal, while supported by external encouragement and support.

Whole-faculty discussions can be supplemented with additional small group discussions in departments at the secondary level, interdisciplinary teams at the middle level, or grade level teams at the elementary level. The findings from those groups can be added to the plan of action by the school improvement team or shared with the faculty during the discussions or work sessions. Different strategies work better in different school cultures. But whatever the strategy, it should help to move the schools' culture toward one of openness, focus on learning, and collaboration. Those are important characteristics of cultures in highly successful schools (Peterson & Deal, 2002).

Conclusions/Implications

The IPI has been used successfully in many educational settings across the United States (appendix C). The required training for certification as an IPI evaluator provides rater reliability and transferability of the IPI data. Within the American public schools, the IPI produces trustworthy data useful in the development of policy, curriculum, and

programs that enhance student achievement and school improvement. We believe the decolonizing foundation embedded within a multicultural training model design such as proposed with this project enhances the viability of its use in schools with indigenous student populations.

Appendix A

IPI Data Collection Protocols

- Observations take place on “typical” school days when there are no unusual circumstances such as major field trips, assemblies, flu epidemics, etc.
- Observations are conducted on Mondays through Thursdays, avoiding Fridays as teachers seldom view Friday as a typical teaching day.
- Faculty should be informed a few days prior to the data collection day that an observer will be moving throughout classrooms observing student learning. Teachers and students should be asked to go about “business as usual”.
- The observer uses a map of the school if needed and moves systematically through the building to ensure that data are gathered proportionately from all instructional settings.
- The observer collects data continuously throughout the school day, repeatedly following the same systematic pattern so each instructional setting (classroom) is observed multiple times. A typical observation day for most schools results in approximately 125-150 observations. Experienced data collectors often get 150-175 observations in a school day. In large schools, two or more observers collect approximately 250-300 observations. In schools with alternating day curriculum, data should be collected over two days to ensure representation from all learning settings.
- Observations are typically one to three minutes in length, depending upon the amount of time necessary to be certain the observation is categorized accurately.
- The observer codes the students’ initial learning experience observed when they enter the learning setting. The observer does not have the prerogative to decide what learning experience to code if the students move from one experience to another during the observation.
- The observer codes the predominant pattern of learning if students are engaged simultaneously in different learning experiences.
- The observer focuses immediately on the students and their learning experiences.
- The observer steps out of the instructional setting to record his/her observation.

- All codes should be anonymous. The observer does not record teacher names or any identifying information with an observation code. The data are "school-wide" and are not be used in any manner for the purposes of teacher evaluation.
- All classes are observed once before the systematic observation cycle begins again. The observer then repeats the same systematic process multiple times.
- The observer does not record data during "transition" times between subject/content areas. For example, in schools governed by bells and class periods, observations are not made during the first five minutes or last five minutes of the instructional period. In schools without bells, usually elementary schools, observations during transitions from one subject to another are not recorded. The observer should simply return to the class a few minutes later to make the observation.
- The observer designates "core" classes and "non-core" classes on the IPI data recording form. The IPI data analysis creates profiles from the designated data for core observations, non-core observations, and all observations. Core classes are defined as learning settings in language arts, including spelling and reading/literacy, mathematics, science, and social studies. Non-core classes are all other settings, often referred to as "specials" in elementary schools, "exploratory" in middle schools, and "electives" in secondary schools.

Appendix B

Recommended Steps for Teacher Engagement

The goal for these work sessions is to analyze the IPI profiles and develop a plan of action for instructional change.

- Review and discuss with the whole faculty the IPI categories and the protocols used to collect the IPI data. This review can be a brief 10 minutes total.
- With the faculty divided into small groups of 5-8 per group, ask each group to discuss positive findings from the data. The facilitator might describe it as concepts we should celebrate. Ask each table to list their positive findings on poster paper, share out the groups' findings, and compile a school-wide list of positive findings from the data on poster paper.
- Distribute five (or more) stick-on dots (marking pens can also be used) and ask each participant to use their dots to identify the most significant items on the list. Discuss briefly the items most frequently identified and why the faculty should celebrate those findings.
- Repeat the above process, this time asking each group to discuss the issues of concern (more negative findings) from the data. Repeat the posting, sharing-out, and compiling of a school-wide list of concerns. Provide the faculty with more dots and use them to identify the items of most significant concern.
- Using the list of most significant concerns (by identifying the issues with the most dots), ask each small group to brainstorm two or three strategies for addressing the top three or four issues.
- Share-out and discuss the groups' recommendations, writing the key suggestions on a projection system, overhead, or poster paper.
- If time permits, ask the faculty to discuss in small groups other forms of data that support or reject the information from the IPI profiles. Share-out and discuss the examples as a faculty, recording the examples on a projection system, overhead, or poster paper.

- After the faculty discussion, be sure to type up the faculty's comments from the poster papers and share the compilation with the faculty as soon as possible, definitely within two school days.
- In a few weeks or another two or three months, collect another set of IPI profile data and engage the faculty in similar discussions. However, this time, move the conversation toward a deeper analysis of the forms of learning experiences for students that match the higher-order categories of the IPI. Use similar processes for facilitating the analysis and discussions, recording the thoughts of the groups and whole faculty, and returning those thoughts back to the faculty as soon as feasible.
- In subsequent data collections and faculty discussions, begin to look at the data from a longitudinal view. Continue to look for positives and concerns from the data and continue to discuss, record, and share back the faculty's comments and thinking. In addition, near the end of the school year, lead one discussion of the goals for next year and set some appropriate targets for each IPI category that would continue to move the learning experiences for all students toward a higher level of engagement and thinking. Once goals are identified, discuss the forms of professional development that would support achieving the goals and design one or more simple action plans if that seems helpful in accomplishing the stated goals. In addition to needed professional development, the action plans might include tasks and events, responsibilities, and timelines for accomplishing the strategies. Discuss the plan openly, share it in writing with faculty, and develop a system for monitoring progress for each goal.

The above is not meant to be a prescription but rather a set of suggested practices for engaging the faculty in the important discussions that can occur based upon the IPI data profiles.

Appendix C

Table 1

The generic representation of the IPI data, providing "typical" profile data from elementary, middle, and high schools for all data (core and non-core) in schools from all types of settings, including rural, suburban, and urban and schools with various student populations from very small to very large. While it is interesting to note some patterns of difference between the levels, conclusions should not be drawn from these data because they were not randomly collected under controlled research conditions.

Table 1
Typical Percentages for IPI Data in Elementary, Middle, and High Schools (April, 2004)

IPI Category	Elementary Schools	Middle Schools	High Schools
Student Active Engaged Learning	15-25	15-20	15-20
Student Learning Conversations	3-5	3-5	3-5
Teacher-Led Instruction	35-40	35-45	30-40
Student Work with Teacher Engaged	20-30	20-30	15-20
Student Work with Teacher Not Engaged	5-10	10-20	15-20
Complete Disengagement	3-8	5-10	5-15

Table 2

Table 2 reports the typical percentage differences between core and non-core classes and more effective and less effective schools. The more effective and less effective schools were designated based upon available student achievement data in those schools. Schools in this table are also from the varied types of educational settings, including elementary, middle, and high schools and rural, suburban, and urban settings, as well as small, medium, and large enrollment schools. As previously cautioned, while it is interesting to see the patterns in the table, conclusions should not be drawn from these data because they were not randomly collected under controlled research conditions.

Table 2
Typical Percentages for IPI Data for Core, Non-Core, More Effective, and Less Effective Schools (January, 2005)

IPI Category	Typical	Core	Non-Core	More Effective	Less Effective
Student Active Engaged Learning	15-20	<15	<25	>25	15-20
Student Learning Conversations	3-5	5-10	<5	5-10	<5
Teacher-Led Instruction	30-45	>40	<40	35-45	30-40
Student Work with Teacher Engaged	20-30	>25	<25	15-25	>25
Student Work with Teacher Not Engaged	10-20	>20	<20	5-10	10-20
Complete Disengagement	5-10	>5	<5	<3	>5

Tables 3, 4, and 5

These tables contain data from middle-level schools that participated in Project ASSIST and the National Association of Secondary School principals' National Study of Highly Successful Middle Level Schools and Their Leaders. Both studies were conducted by the Middle Level Leadership Center. The six schools from the NASSP study were identified through an extensive national search of highly successful middle level schools and a subsequent confirmatory analysis of multiple forms of school data. The IPI data for the six schools were collected in 2002 during two-day site visits to the schools after the schools were identified as exemplary. The five middle schools from Project ASSIST consistently had student achievement in the bottom five percent of middle level schools in a mid-western state. The IPI data were collected in the five schools in 2003 as baseline data before the beginning of a multi-year school improvement project for each school. Unlike the data presented in Tables 1 and 2, the data in Tables 3, 4, and 5 from these two "outlier" sets of schools were collected in controlled research conditions and were analyzed for significant differences. Even with a relatively small number of schools to analyze, the findings provide important insight about the differences in schools where students are relatively unsuccessful and schools where students are relatively successful.

As is evident from the tables, the tests of differences for means were significant for most comparisons.

The more obvious differences between the two sets of schools presented in Table 3 are for the categories of Student Active Engaged Learning, Student Work with Teacher Engaged, and Complete Disengagement. The percent of observations in the highly successful schools for Student Active Engaged Learning was nearly twice that for the very unsuccessful schools while the percentages of observations for Student Work with Teacher Engaged were essentially reversed, with considerably more observations in the very unsuccessful schools. The most glaring difference between the two sets of schools may be the data for the Complete Disengagement category where the observations for the very unsuccessful schools was more than eight times that of the highly successful schools.

Table 3
IPI Data for the Six IPI Coding Categories from Highly Successful and Very Unsuccessful Middle Schools (February, 2005)

IPI Category	Highly Successful	Very Unsuccessful	Significance Level
Student Active Engaged Learning	29.3	16.0	.070
Student Learning Conversations	3.3	0.2	.004*
Teacher-Led Instruction	40.5	33.2	.197
Student Work w/ Teacher Engaged	17.3	28.4	.002*
Student Work w/ Teacher Not Engaged	8.5	13.6	.309
Complete Disengagement	1.0	8.4	.000*

The data in the first two columns of Table 4 are organized in pairs that reflect the original broad themes of the IPI. The Student Engaged Instruction grouping includes categories five and six and represents the total percentages of higher-order learning. The difference is clearly significant. The second grouping, Teacher Directed Instruction, is categories three and four and is clearly different but not significant at the .05 level. The third grouping is labeled disengagement and includes categories one and two. Again, the

difference is clearly significant. In essence, students in more successful schools are significantly more engaged in higher-order learning experiences than students in less successful, low-achieving schools. On the issue of the categories that merge teacher disengagement and student disengagement, the students and teachers in the low-achieving schools are significantly more likely to be disengaged than those in higher achieving schools.

Table 4
IPI Data Merged for the Three Broad Themes from Highly Successful and Very Unsuccessful Middle Level Schools (February, 2005)

IPI Category	Broad Themes	Highly Successful	Very Unsuccessful	Signif. Level
Student Active Engaged Learning	Student Engaged Instruction	32.6	16.2	.046*
Student Learning Conversations				
Teacher-Led Instruction	Teacher-Directed Instruction	57.8	61.6	.052
Student Work w/ Teacher Engaged				
Student Work w/ Teacher Not Engaged	Disengage-ment	9.5	22.0	.035*
Complete Disengagement				

Perhaps the most informative analysis is found in the differences between the two sets of schools when the data are grouped into categories 4, 5, and 6 and categories 1, 2, and 3. For both category groupings, the differences are significant. Students in highly successful schools are significantly more likely to be engaged in higher-order thinking with teachers who are actively teaching the students. Students in less successful schools are more likely to be doing seatwork with or without the teachers' support or disengaged from learning. This grouping is especially interesting when the ratio of percentages between the highly successful schools and the very unsuccessful schools are compared. In the highly successful schools the ratio of categories 4-5-6 to categories 1-2-3 is approximately 3:1. In the very unsuccessful schools, the ratio is almost exactly 1:1. These findings provide a very strong argument that student learning experiences in schools with

higher achievement engage students more frequently in higher-order learning and experiences where the teacher takes an active role in leading the learning. In less successful schools, the students are more frequently engaged in more passive learning experiences or disengaged. These data paint a very different picture of instruction in high achieving and low achieving schools.

Table 5
IPI Data Merged into Two Divisions of categories 4-5-6 and 1-2-3 from Highly Successful and Very Unsuccessful Middle Level Schools (February, 2005)

IPI Category	Highly Successful	Very Unsuccessful	Significance Level
Student Active Engaged Learning	73.1	49.4	.004*
Student Learning Conversations			
Teacher Led Instruction			
Student Work w/ Teacher Engaged	26.8	50.4	.006*
Student Work w/ Teacher Not Engaged			
Complete Disengagement			

The Research Road Ahead

In recent years the IPI process has been recommended in two national principal publications (National Association of Secondary School principals, 2004, 2006). It has also been used extensively in several large urban school systems and in hundreds of suburban, small city, and urban districts. State departments of education in four Midwestern states recommend the process for their schools in jeopardy of not meeting academic yearly progress and in their non-jeopardy school improvement initiatives. The regional educational agencies in those states regularly provide professional development to their teacher-leaders and principals. In one state, the National Board Certified teachers are being trained in the process so they can be pro-active leaders for instructional change in their schools. Most of these initiatives centered on the use of the IPI have unfolded in the past three or four years. Now that hundreds of schools across the Midwest are using

the instrument, and hundreds are using the IPI process in large urban district, the “n” for research is reaching a critical mass. Research studies currently under way include an analysis of the relationships between IPI profiles and student achievement as measured by state standardized assessment in three Midwestern states. In one state, data are available for nearly 200 schools and in another data are available for more than 100 schools. The data collection process is currently under way in those states. In the third state, aggressive training of leaders will produce a population of more than 100 schools within the next year, again setting the stage for analysis of the IPI profiles with state tests of student achievement. In one major urban district, every principal and many teacher leaders have been trained in the process. In the nearly 100 schools, data from the IPI profiles, from the “valued-added” assessments, and from the state achievement measures in language arts and mathematics are now available and in preliminary analysis. Initial review of the data by the district leaders reports positive correlations between the higher-order IPI categories, “value-added measures” and student achievement. In the coming months additional opportunities for data analysis will unfold in another Midwestern state that will have approximately 50 schools soon using the IPI process.

School improvement is a complex mix of many strategies and components articulated together into a sum larger than its parts. However, the potential of a single tool or process should never be overlooked or underestimated. In the near future, data from three Midwestern states and from urban settings in four other states will provide valuable insight about the utility of the IPI as a tool for profiling student learning and, more importantly, as a tool for promoting faculty reflection and problem-solving. Once the latter is documented, then the next step will be to study the organizations for a period of

time to determine the degree to which the effective use of the IPI fosters organizational learning and increases student achievement.

References

Diamond, P. (2003). *A fire in your belly: Maori leaders speak.* Wellington, Aotearoa New Zealand: Huia Publisher.

DuFour, R., Eaker, R., & DuFour, R. (Eds.) (2005). *On common ground: The power of professional learning communities*. Bloomington, IN: National Education Service.

Grande, S. (2004). *Red pedagogy: Native American social and political thought.* Lanham, MA: Rowman & Littlefield Publisher, Inc.

Hopkins, D., Ainscow, M., & West, W. (1994). *School improvement in an era of change.* New York: Teachers College Press.

Lomawaima, K. T. (2000). Tribal Sovereigns: Reframing research in American Indian education. *Harvard Educational Review, 70*(1), 1-21.

National Association of Secondary principals. (2004). *Breaking ranks II: Strategies for leading high school reform*. Reston, VA: Author.

National Association of Secondary principals. (2006). *Breaking ranks in the middle: Strategies for leading middle school reform*. Reston, VA: Author.

Newmann, F.M., & Wehlage, G.G. (1995). *Successful school restructuring: A report to the public and educators by the Center on Organization and Restructuring of Schools.* Washington, DC: American Federation of Teachers.

Painter, B. (1998). *The impact of school leadership on student engagement and perceptions of teacher-student relationships.* Unpublished doctoral dissertation, University of Missouri, Columbia.

Peterson, K. & Deal, T. (2002). *The shaping school culture fieldbook*. San Francisco: Jossey-Bass.

Pewewardy, C. (2002). Learning styles of American Indian/Alaska Native students: A review of the literature and implications for practice. *Journal of Merican Indian Education*, v41, 3.

Smith, L.T. (1999). *Decolonizing methodologies: Research and indigenous peoples.* London: Zed Books Ltd.

Swisher, K. (1994). American Indian learning styles survey: An assessment of teachers knowledge. *The Journal of Educational Issues of Language Minority Students, 13,* 59-77.

Quinn, D. (1999). *The impact of principal leadership behaviors on instructional practice*. Unpublished doctoral dissertation, University of Missouri, Columbia.

Quinn, D. (2002). The impact of principal leadership behaviors on instructional practice and student engagement. *Journal of Educational Administration*, 40(4/5), 447-467.

Quinn, D.M., Gruenert, S.W., & Valentine, J.W. (1999). *Using data for school improvement*. (National Alliance of Middle Level Schools, Turning Points: Recommendations into Action Monograph). Reston, VA: National Association of Secondary School principals.

Valentine, J. (2005). *The instructional practices inventory: A process for profiling student engaged learning for school improvement*. Columbia, MO: Middle Level Leadership Center web site, www.education.missouri.edu/ELPA/MLLC/.

Valentine, J. (2006). *Project ASSIST: A comprehensive, systemic change initiative for middle level schools*. Paper presented at the International Congress for School Effectiveness and Improvement, Ft. Lauderdale, FL, January 4, 2006.

Valentine, J.W., Clark, D.C., Hackmann, D.G., & Petzko, V.N. (2004). *Leadership for highly successful middle level schools: A national study of leadership in middle level schools.* Reston, VA: National Association of Secondary School principals.