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Diversity in Action: Improving Educational Research in the Pacific Region

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**Why aren't our elementary kids learning to read well in English?
Why don't more parents get involved in school activities? Why
are teachers absent so often? Why are so many high school
students dropping out before they graduate?**

As educators, we regularly seek answers to questions like these. However, obstacles such as lack of time, insufficient resources, and other duties and responsibilities make it nearly impossible for us to explore these issues thoroughly. Instead, we base our conclusions on anecdotes, provisional or limited information, intuition, or personal observations. We seek patterns in the chaos and complexity of our situations and base what we regard as “reality” or “truth” on singular incidents, cultural misperceptions, linguistic miscommunications, or incomplete information. While there may be some truth to the conclusions we reach, we cannot count on them to be completely reliable.

This is precisely why educational research exists. Educators should not be expected both to teach and to solve the major problems facing education. Not only would such demands be extreme, they would be unrealistic. Because as educators we are completely immersed in the classroom environment day after day, it is difficult for us to gain the perspective necessary to recognize and solve the larger problems. While our insights and ideas are valuable, an outside perspective is also important.

Unfortunately, educational research has earned something of a bad reputation. It has often been characterized, perhaps rightly so, as a meaningless exercise in academic muscle flexing or a battle of opposing ivory towers. Moreover, it is sometimes regarded as having no connection to the realities in the classroom. Unfortunately, these perceptions have prevented many educators from seeing the true

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value of educational research and its implications for practice. Optimally, rigorous scientific research methodology provides the means by which educators can find reliable answers to real-life questions. Thus, educational research can and should affect practice in the classroom.

The question is not “Should we conduct educational research?” It is “How do we ensure that our research asks relevant questions and provides meaningful insights on important issues?”

Conducting Research in Multicultural and Multilingual Contexts

Conducting research is a complex, multi-task endeavor. Even within familiar contexts where we know the power structures, protocols, and rhetoric, research is a daunting task. Researchers attempting to conduct a successful study in the U.S.-affiliated Pacific region face additional challenges: multiple languages and time zones, frequent shifts in political power, social interactions based on traditional extended-family connections, great distances, and cultural factors that vary not only from island to island but from village to village. Conducting a successful research study under these circumstances might seem impossible.

One of the most rewarding aspects of working in the U.S.-affiliated Pacific region is also one of the most challenging. With the exception of the more heavily populated areas in Hawai‘i, Guam, and the Commonwealth of the Northern Mariana Islands (CNMI), small, close-knit communities are the norm. Personal relationships and connections are often perceived as more important than task completion. Understanding interpersonal relationships based on history, family ties, cultural connections, school affiliations, and community or village membership is key to accomplishing tasks in our Region. The importance of preserving and nurturing personal relationships in the community has a direct effect on professional responsibilities, and using connections to accomplish tasks is commonplace and often expected. Challenges such as these should be treated as opportunities rather than as barriers in the research process. While sometimes frustrating, these challenges provide opportunities to create closer connections and achieve greater understanding of complex educational issues. Furthermore, because so little research is conducted in the Region, there is ample opportunity to address critical issues from fresh perspectives and to pursue research topics that have not previously been investigated.

Challenges in the Region can be assigned to the following categories:

- Environmental
- Social
- Linguistic
- Cultural
- Political
- Infrastructure

Environmental factors have a profound effect on island life. It is not uncommon for flooding after heavy rains to occasion unforeseen school closures. Typhoons or hurricanes can result in months, if not years, of rebuilding. High levels of heat and humidity make it necessary to house computers and other hardware in controlled environments with year-round temperature control.

The social and cultural contexts of village life obligate individuals to participate in and contribute to a variety of events. Funerals, weddings, religious holidays, and village celebrations can last days or even weeks, and members of the local community are expected to provide support. On many islands, substitute teachers are not available. If a teacher is absent from the classroom, students are either directed to another teacher’s room or sent home.

Island politics shape the bureaucracies that control local education, economics, and social welfare. Elections affect all aspects of life in the smaller communities, including shifts in jobs and power. It is important to work within the political structures of the community. Knowledge of protocol, including

how to address both elected officials and traditional leaders, is of great importance.

English is widely spoken throughout the Region; however, with the exception of those in Hawai'i, Guam, and the CNMI, most people speak a Pacific language as their first language. Children entering first grade are most likely to speak the languages of their communities. Literacy instruction varies from island to island. Some entities provide initial reading instruction in the student's first language, while others use the first language orally but teach reading and writing in English. The development of standard orthographies for languages that have a long oral history is a challenge, especially since there are multiple regional variants for each language. There is still much work to be done on literacy instruction in first languages and in English.

Island infrastructure is also a factor that needs to be taken into account. Schools range from buildings with high-tech classrooms and Internet connections to small rural spaces with open-air classrooms and electricity from generators. Hawai'i has multi-lane freeways while most of the other entities have two-lane roads. More remote villages can only be reached by boat or unpaved roads. It can take months to obtain telephone service and the number of lines available may be limited. Schools may have only one voice line and no dedicated fax line. The only computer may be in the school office because it is the only room with air conditioning. It is surprising that researchers do not always pay enough attention to these important variables when preparing to conduct a research study in the Pacific region.

Cultural bias is another issue too important to ignore. Cross-cultural researchers often unconsciously introduce cultural biases into their observations and interpretations. According to Funkhouser (1993), "The very fact that empirical research methodologies are applied to further understanding of cultural issues is a reflection of Western, scientific tradition, itself a product of a particular cultural heritage" (p. 1).

While no organization is completely immune to these tendencies, PREL does have the advantage of experience. PREL's Research and Development unit has undertaken several research initiatives in the U.S.-affiliated Pacific and is therefore familiar with the challenges of conducting research in the Region. As an organization that works collaboratively, PREL strives to address the needs of each entity in modes that are sensitive to the languages, cultures, and socio-economics of the Pacific. The distinct environmental, cultural, linguistic, social, and political contexts of the islands provide a unique setting for educational research. PREL understands that to be successful in this diverse Region, it is vital that all these factors be taken into account.

Overview of the PREL Research Process

In an effort to contravene factors like cross-cultural biases, PREL researchers work in collaboration with a leadership team called the PREL Research and Development (R&D) Cadre. The participation of the R&D Cadre is invaluable. The members of the Cadre help create awareness of local cultural and political issues, as well as understanding of concerns specific to the research locale and population. With this knowledge, the R&D Cadre is able to propose effective methods of gaining pertinent and accurate information that ultimately helps determine the quality of the research. PREL R&D staff provide guidance and coordinate the research studies. Their *kuleana* includes convening R&D Cadre meetings, conducting literature reviews, coordinating data-collection activities, writing the final reports, and presenting the findings clearly and concisely so that they are accessible to policy makers and constituents.

Following recommendations from the *Handbook in Research and Evaluation* (Isaac & Michael, 1990), a typical PREL research agenda includes the following components:

- research on the problem or question,

- literature review,
- research methodology, including design, pilot studies, subject selection, instrumentation, and data collection,
- findings (analysis and evaluation),
- conclusions and recommendations,
- limitations of the study.

Fraenkel and Wallen (2000) recommend slightly different components, including:

- identification of a problem or question,
- clarification of the problem,
- determination of the necessary information and how to obtain it,
- organization of the information,
- interpretation of the results.

It is important to remember that any publication on research methodology can only present procedures and does not provide solutions for specific problems. Often the research objective for studies in diverse cultures is to discover and then solve the problems that arise (Brislin, Lonner, & Thorndike, 1973). The first step towards addressing potential cross-cultural issues is developing awareness and knowledge of cultural differences as they affect the research process.

Formulating the Research Question

Initially, R&D Cadre members propose an investigation of a problem or issue relevant to the respective entity. Or the research may be designed to follow up on the results of previous studies in similar areas. Two other leadership teams provide input on possible research questions: the PREL Board of Directors (which includes the chief state school officers from all of the entities served by PREL) and the Pacific Curriculum and Instruction Council (PCIC). These groups work together to identify and define the research problem. Once consensus is reached, the PREL R&D unit proposes several possible study-design options and presents them to the Cadre. The process is designed to ensure a solid, feasible, and relevant study on an important issue.

Writing the Literature Review

Because the Cadre members in their respective entities may not have access to all the necessary resources, PREL staff members assume the responsibility of conducting a thorough literature review. This generally entails using Internet resources, library services, document finders, and our own in-house resource center. Relevant international, national, and regional research-study reports are reviewed and synthesized. Because of the scarcity of the research conducted in the American-affiliated Pacific, some information is obtained through informal talks, focus groups, interviews, and group discussions with Pacific educators. The results of the review are then shared with the R&D Cadre. By working together the staff members and the Cadre are better able to make informed decisions that circumvent methodological problems others may have experienced in previous studies.

Research Methodology and Design

Designing research studies that serve the Pacific requires special attention. The great distances between entities, the high cost of travel, and the multiple time zones are all variables that affect the research process. The importance of flexibility cannot be overstated. Researchers must prepare strategies to handle the unexpected events that often occur. These strategies are critically dependent upon the quality of the relationships among all study participants (Easterby-Smith & Malina, 1999). Synchronous, asynchronous, and person-to-person communication can be managed only when all parties recognize technological limitations, costs for air transportation and lodging, and the availability of resources in the various entities. Although there is a range of communication technology avail-

able in the various entities, not all entities have access to Internet communications technology. For example, telephones and Internet access are available almost everywhere in the mainland United States, but the technology for videoconferencing is not widely accessible or fully supported in some entities. These realities can affect a research timeline as well as test a researcher's ability to cope with unexpected hindrances.

Research design must also take into account the range of languages common to the Pacific entities. Estimates suggest that there are more than 30 languages in use in the Region (Pacific Regional Educational Laboratory, 1995). While English is common throughout the U.S.-affiliated Pacific at one level or another, the use of English in homes, schools, and public arenas varies. Researchers cannot be certain respondents will be able to comprehend the researcher's language or even the content. Translations are employed where necessary in order to accommodate the study design. While the use of translators provides valuable information, Temple (1997) warns that they too influence the findings. Researchers who rely on translations need to acknowledge their dependence on the translator not only for words but also, to a limited extent, for perspective. Once these problems have been addressed, researchers can select subjects or samples while acknowledging that potential changes are inevitable when doing research in the Pacific.

Pilot Testing

While pilot testing is an essential step in research design, time, resources, and travel distance may not permit this measure. In order to ensure some degree of accuracy, PREL enlists the help of Service Center personnel and PREL Pacific Island staff in reviewing and providing feedback regarding cultural relevance, feasibility, language, and other factors that may affect the study.

Sampling

Ministries and departments of education as well as schools commonly undergo internal restructuring in response to changes in national, provincial/state, or local-government program policies. These changes often result in position displacement, early retirement, or job termination, thus impacting the research project. As a result, subjects or samples may not be available throughout the whole agenda. In some instances, new officials are assigned as research collaborators, interrupting the process with new perspectives and/or directions (Duff & Early, 1996). The Pacific entities undergo frequent political restructuring as new governors are elected and then appoint new educational administrators. Changes in administrative staff affect the educational system where most of PREL's research is carried out. Elections occur at different intervals in each entity, which can mean re-thinking the sample-collection site or even the research design. Problems arise when research participants, including R&D Cadre members, become inconsistent.

Instrument Design

Designing data-collection instruments requires the participation of native speakers and attention to local use of language to assure that participants respond appropriately. Because the Pacific entities differ in language, culture, and socioeconomics, it is imperative that the data-collection instruments engage each entity equally. Tests and surveys must be written so they are free of cultural bias. This can prove difficult, as they are often written in languages other than English. It is essential that both the researcher and the translator understand the importance of bias-free language.

Hughes, Seidman, and Williams (1993) advise researchers to begin with measures that have proven reliability and validity, then add or modify items to make them culturally relevant. This was the approach employed in the *Retention and Attrition of Pacific School Teachers and Administrators (RAPSTA) Study* (PREL R&D Cadre, 1999). A modified version of the Maslach Burnout Inventory-Educator's Survey was administered to study participants. The test publisher granted written permis-

sion to revise particular items in order to make them culturally appropriate to Pacific Islanders.

Data Collection

Surveys and interviews are widely accepted as the most efficient and thorough tools for collecting data. In the Pacific region, however, we cannot employ these methods without first taking into account certain cultural concerns.

For example, the use of surveys and interviews may present an awkward and strange situation for some cultural and ethnic groups. The format of the survey may be foreign to the respondent. Furthermore, the process of formalized disclosure from the interview itself may not be culturally appropriate (DuPraw & Axner, 1997). The idea of openly discussing emotions or sharing personal information may seem unnatural and may be considered intrusive by some respondents.

Delpit (1995) reminds us that there are differences across cultures in discourse turn-taking, including the length of pauses between turns, the amount of time allowed a speaker at one turn, and how to acquire one's turn when speaking. Such differences in speaking patterns are evident in the Pacific. For example, it is not uncommon for many Pacific Islanders to take a longer response time between turns than Westerners. This makes for many "uncomfortable" silences for Westerners not aware of this protocol. The result is that the Westerner ends up breaking the silence when the respondent may not have finished his or her thought.

Another concern in data collection is the relationship between those collecting data and those providing the data. In most of the entities, Cadre members are supported by a local team of educators who help carry out the data collection. Once Cadre members are trained in data-collection procedures, they in turn train their local support team. With most of the entities made up of small communities, it is likely that interviewers and interviewees or test administrators and test takers are relatives, friends, or acquaintances. These relationships affect the data-collection protocols established for the research project. The importance of following professional guarantees for confidentiality cannot be overstated. However, confidentiality often cannot be guaranteed. The term or concept itself may mean different things in different cultures. For these reasons, PREL staff members and others contributing to the data-collection process need to use their own discretion when addressing confidentiality.

The Pacific Language Use in Schools Study

Over the past two years, PREL and the R&D Cadre have been examining the relationship between classroom practice and student-reading achievement. The Pacific Language Use in Schools (PLUS) Study addresses the following question: Do classroom language use and instructional practices influence students' literacy development?

During the 1998-2000 school years, educators from the Pacific region are partnering with fellow educational researchers from PREL to collect data that describe the languages and methods used to teach reading in Pacific elementary school classrooms.

For in-depth case studies, one to three elementary schools from each of the ten American-affiliated Pacific jurisdictions were selected from locations that represent the range of sociolinguistic communities in this Region:

- first-language dominant (the Federated States of Micronesia [Chuuk, Kosrae, Pohnpei, and Yap] and the Republic of the Marshall Islands),
- bilingual (the Republic of Palau and American Samoa),
- English-language dominant (Hawai'i, Guam, and the Commonwealth of the Northern Mariana Islands).

To gain understanding of the relationships among first-language and English instructional practices and the development of literacy, videotapes of classroom language-arts instruction were collected, along with demographic, language-proficiency, and achievement data. Initial analyses have begun.

PLUS Study results should help identify appropriate instructional practices and classroom language-use patterns that elevate levels of student-literacy achievement in both the indigenous language and in English.

Gender and Status Issues

Because many Pacific Island communities live within a clan system, gender roles and hierarchy are concerns when carrying out research activities. For example, a female researcher may not be able to interview a male school principal because of the cultural connotations that are implicit in the interaction. In some situations of cross-cultural research, the academic status, nationality, and age of the researcher influence the outcome of the study. Furthermore, international differences such as body language may add to these variables, and external attributions of status may clash with local assumptions about what is considered research competence (Easterby-Smith & Malina, 1999). While it may be tempting to challenge these roles, it is incredibly important to remember that the responsibility of a researcher is not to change behaviors but to observe and collect data in order to better understand a place or a problem. Only then can we begin to find a suitable solution.

Findings from the Research

When analyzing data collected in the Pacific entities, the role of language and culture in understanding the meaning of the data collected is critical. Past experiences of researchers from the “outside” will not have equipped them to make sense of events in the same way that “insiders” would (Easterby-Smith & Malina, 1999). For the PLUS Study, particular attention must be paid when codifying English-language proficiency, interpreting participant responses, and attributing literacy development to the languages or the pedagogy used in the classroom. For this reason, data analysis calls for indigenous language experts to translate the videotapes and correct the first-language reading assessments.

Conclusions

Different conclusions can be reached when considering the following points:

- the perspectives of the analysts,
- the context in which the research question was addressed,
- how the data were collected,
- the objectives of the conclusions.

While all research activities at PREL are conducted with the advice of R&D Cadre members throughout the Region, as researchers we may not always understand the cultural contexts behind participant responses or anticipate difficulties in categorizing, analyzing, or drawing conclusions from the data. For this PREL depends heavily on the input of the Cadre members, their local support teams, Pacific Island PREL staff, and other consultants. Conclusions are drawn after culturally relevant recommendations have been carefully considered. A focus group is often employed to substantiate or dispute the claims made by a particular study. Finally, as with many social-science research activities, the conclusions drawn from Pacific research are not necessarily applicable to the entire region or to the continental United States. For this reason, it is important to cite the inherent limitations of cross-cultural research studies. Nevertheless, the findings may have implications for areas with similar demographics, such as remote and rural sites, a preponderance of English-language learners, and low access to technology and other innovations.

Limitations of the Study

Each entity has distinctive cultural and behavioral characteristics that distinguish it from neighboring islands. As a result, it is often difficult to consolidate the Region into one study area. The PLUS research specifically utilizes the case-study method and consequently is subject to the limitations of this method: Data collected from individual schools in each entity do not necessarily represent the Region, let alone the entity as a whole.

In some instances, it is not always possible to complete data collection in a timely manner. Unforeseen circumstances, such as power outages or cancelled airline flights, may delay the process. A hasty attempt to finish a study before the school year is over may lay the process open to criticism.

In order to encourage truthfulness, anonymity is secured in some studies by not asking for individual names on surveys or questionnaires. However, names of schools are often noted. In entities where there are a small number of schools and few teachers, this procedure may not ensure anonymity (PREL R&D Cadre, 1999), and any such potential breaches in the study must be noted.

We began this paper by describing some of the unique variables affecting research studies in the Pacific. At its core, however, Pacific educational research does not differ much from other social-science cross-cultural studies. Distinctive circumstances, such as travel time, weather conditions, and cultural norms provide an appropriately complex forum in which to address diversity. With a continuously growing multicultural population, cross-cultural research practices and procedures may become a standard endeavor for all disciplines.

Recommendations

The authors humbly recommend the following strategies when conducting research in the American-affiliated Pacific region or among other diverse populations:

- Build relationships and seek input from the community where data collection will take place.
- Make certain that the research concepts are comprehensible and applicable to the target population.
- Allow for flexibility in the research timeline to accommodate unexpected occurrences such as changing weather conditions, social and political adjustments, and misuse of data-collection instruments.
- Develop multiple modes of correspondence to minimize communication failures, especially in regard to schedules and arrangements for activities.
- Confer with all participants to achieve consensus on appropriate data-collection instruments and activities.
- After obtaining permission from the publisher, modify data-collection instruments to eliminate potential cultural biases.
- Be aware of and adjust to social and cultural protocols that may affect the data collection and analysis.
- Consult with research participants and other sources on the accuracy of interpretations.
- Allow for changes in personnel carrying out data collection and analysis activities due to personal and professional associations.
- Plan ahead for necessary equipment and supplies that may not be available at the data-collection site.
- Seek out cultural informants who can offer interpretations and translations of the data.

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