



# Distance Learning in Micronesia: Participants' Perspectives

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## Introduction

Educational leaders in Micronesia have identified the need for well-trained teachers as an essential precursor to the development of effective educational systems. Preservice and in-service teachers living in the rural and geographically dispersed Pacific islands do not have easy access to ongoing educational opportunities. With the growth of satellite-based telecommunication networks throughout the northern Pacific region of Micronesia in the past 10 years, distance learning has been identified as a way to provide Islanders access to higher education in the fields of education, health, and government. Courses taught in distance learning formats provide opportunities to gain education without requiring people to leave the islands and take time off from their jobs to pursue higher education.

Pacific Resources for Education and Learning (PREL), along with several partner organizations, has been building the distance learning infrastructure in the Pacific since 1997. PREL received a Star Schools grant from the U.S. Department of Education to provide distance learning programming for students, teachers, and adults in Hawai'i, Micronesia, and American Samoa. PRELSTAR: A Pacific Islands Distance Learning Program was created through this grant to provide courses to educators and educational content to students. In partnership with Pan-Pacific Education and Communication Experiments by Satellite (PEACESAT), PRELSTAR has been involved in building the technical and human infrastructure necessary for distance learning initiatives. Organizations that have been instrumental in this partnership are the University of Guam and the Sasakawa Pacific Island Nations Fund (SPINF). Together, these organizations have partnered to provide training, organize meetings and workshops that bring together key people on the different islands, and develop the human resources that were necessary to maintain and support the delivery of distance learning initiatives. Institutions of higher education (IHEs) based in Micronesia, as well as universities in the continental United States, have embraced the opportunity to develop distance learning initiatives in the islands (Whitney, 2002).

## *Participants' Perspectives on Distance Learning*

While IHEs and educational leaders in the U.S.-affiliated Pacific have expressed great enthusiasm for distance learning courses as a vehicle to train future educators in the islands, there is little literature describing the viewpoint of the target audience of these distance learning initiatives. Many agree that distance learning offers a viable and useful way to provide access to education for those who live in remote and rural places (Whitney, 2002; Farrell and Wachholz, 2003; Ragogo, 2004). To develop culturally-responsive educational systems, it is important for distance learning providers to determine why and how people make use of distance learning opportunities. In addition, it is useful to understand what factors lead to successful experiences and attainment of learning goals in this mode of educational delivery.

This research brief examines the issues of developing and delivering distance learning courses in the geographical, social, and cultural contexts of Micronesia. This paper reports on the

perspectives and experiences of participants in two distance learning courses that took place in Pohnpei, Federated States of Micronesia (FSM), and Ebeye, Republic of the Marshall Islands (RMI), in the first half of 2006.

The questions addressed in this study are:

1. What components should a distance learning course include in order to meet the needs of Micronesian educators who seek to obtain professional development and training?
2. What infrastructural, social, and cultural factors should course developers take into account when designing instructional activities for a distance learning course?

## *Distance Learning Methods*

Distance learning is an umbrella term that refers to various methods by which instruction can be delivered over a distance. A typical distance learning course will employ one or more methods to connect instructors and course participants.

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Telecommunication- and technology-based distance learning includes the use of: (a) Web-based courseware (e.g., Moodle, Blackboard, WebCT), (b) Web-based collaboration and conferencing systems (e.g., Elluminate *Live!*), (c) videoconferencing, (d) teleconferencing, and (f) email and technology tools (e.g., CD-ROMs containing course content) that allow the instructor to conduct synchronous and/or asynchronous lessons with participants (see Table 1). In a synchronous session, the instructor and course participants connect at the same time, whereas in an asynchronous session, each party accesses and sends information without real-time connection. Distance learning courses can employ a combination of these technologies and modes. The choice of which distance learning technologies to use should be determined by taking infrastructural factors, instructional objectives, and participant needs into account.

**Table 1. Distance Learning Telecommunication Technologies**

Primary Mode of Interaction	Technology Tool
Asynchronous	Web-based courseware (e.g., Moodle, WebCT) Email
Synchronous	Teleconferencing Videoconferencing Web-based collaboration/conferencing (e.g., Elluminate <i>Live!</i> ) Instant messaging

PREL's past experience with distance learning has shown that "hybrid" models of distance learning are received well by course participants in Micronesia (Baxendale, 2005). Hybrid models incorporate both synchronous and asynchronous distance learning methods. Many of PREL's past courses have integrated intensive week-long face-to-face sessions, during which the instructor and participants meet in person, with follow-up sessions that utilize Web-based courseware and email. This model is cost-restrictive and not easily replicable. It requires funding for instructors or participants to travel and requires participants to have the time to gather for the face-to-face session, taking time off from their jobs.

The two courses examined in this paper used a hybrid methodology that included a newly-emerging means of synchronous communication. Rather than conducting an intensive face-to-face session with participants, the instructors of these courses conducted a weekly synchronous session from a distance. Using a Web-based collaboration and conferencing system called Elluminate *Live!*, the instructor "met" weekly with course participants, mirroring a weekly class sessions that often takes place in traditional courses. Participants gathered in a room that had one computer and interacted with the instructor using Elluminate *Live!* The instructor, based in Honolulu, was able to present material, talk to the group, and send text-based instant messages to them. The system allowed for an interactive session between the participants and instructor that

replicated a classroom setting. There was also an asynchronous component to this course. To exchange documents and assignments, the instructor and participants used email. This model differed from the use of Web-based courseware that is commonly employed for the asynchronous component of distance learning courses.

**Table 2. Comparison of Web-Based Systems**

	Web-Based Courseware (e.g., Moodle, Blackboard, WebCT)	Web-Based Collaboration and Conferencing (e.g., Elluminate <i>Live!</i> )
Mode of Interaction	Primarily asynchronous	Synchronous/real time Participants can hear/see instructor
Computer Skills Necessary	Significant training or experience needed	Not much training necessary to use basic features
Exchanging Information	Discussion boards Submission folders	Voice connection Use of email to send assignments

Elluminate *Live!* and Web-based courseware have several differences (see Table 2). Using Elluminate *Live!* was a way to address several issues that have come up in past distance learning courses that PREL has provided in Micronesia. These issues include varying levels of participant comfort and skill with technology, lack of access to computers and Internet connections, and a preference for real-time interaction with instructors.

Participant feedback from prior courses taught by PREL is consistent with the literature on distance learning for indigenous communities in rural and geographically dispersed environments. The following section of this paper provides background on the elements of distance learning course design that are relevant to initiatives in Micronesia: (a) designing distance learning for indigenous cultures and (b) issues of access to technology.

## Background

### ***Taking Culture into Consideration: Distance Learning in Indigenous Settings***

Due in part to its key strategic location during World War II, Micronesia has been influenced by an influx of people and aid from the United States, Japan, Germany, and more recently from other Asian nations, like Korea and Taiwan. The indigenous population is predominantly Micronesian, but also includes Polynesian and mixed-race groups. Micronesians live in traditional societies that blend indigenous cultural norms with the forces of modernization and development.

Researchers who have written about distance learning for indigenous cultures offer advice that is relevant to the cultural-ly and geographically diverse setting of Micronesia. Several

articles reported the need to design instruction with an understanding of the cultural modes and preferences of indigenous peoples being served by distance learning courses (Berkshire & Smith, 2000; McLoughlin, 2000; Zepke & Leach, 2001).

Based on their study of distance learning initiatives that included native Alaskan students in rural settings, Berkshire and Smith (2000) wrote, “cultural considerations of language and custom need to outweigh the convenience of tradition and standardization” (p. 29). McLoughlin (2000) stated that a culturally-focused style of instructional design requires a global and inclusive perspective and sensitivity to cultural difference. She suggested that “for indigenous learners the creation and inclusion of the indigenous perspectives is an important dimension and a means of recognizing and integrating cultural knowledge” (Ten Design Principles section, ¶ 9). McLoughlin emphasized the importance of validating materials by members of the group for whom the learning materials are designed and for testing the course with target groups to ensure authenticity.

By assessing the cultural styles and preferences of learners, course designers can take into account nuances that affect the learners’ participation and success in a distance learning environment. Ziegahn (2001) noted some nuances in communication styles that result from cultural differences. Some communication styles that carry over to electronically mediated communication forms include a preference for sending and receiving messages that are direct versus indirect, linear versus circular, and personal versus procedural. Zepke and Leach (2002) cautioned designers to be aware of core pedagogical values in one culture that may not be appropriate in another. They gave as example the expectation that students will question knowledge or the teacher, a mode of interaction that is not appropriate in those cultures in which tradition and authority figures, such as teachers, are not questioned.

Ziegahn (2001) noted that as cultural beings, our teaching is based on our cultural values regardless of whether we are aware of their influence. Course designers are likely to embed these cultural values in their expectations of a course. Ziegahn gave this example of a cultural bias that can affect course design: individualistic cultures reward people for individual initiative and expression, whereas collectivist cultures, as many in the Pacific are, value the reinforcement of social connections and norms.

Zepke and Leach (2002) noted that Maori cultural preferences included working in groups, taking holistic approaches to learning, having face-to-face contact and discussion, and linking learning to real life tasks. For those cultural groups that have a preference for collaborative learning, these researchers suggested using the principle of communities of practice. This principle, often cited in the literature on adult learning styles, is one way to integrate collaboration and community into a distance learning environment. Schlager and Fusco (2003) defined communities of practice as “emergent, self-reproducing, and evolving entities that are distinct from, and frequently extend beyond, formal organizational structures, with their own organizing structures, norms of behavior, communication channels, and history” (p. 204). From her study of indigenous learners in Australia, McLoughlin (2000) stated that communities of practice could be put into place by providing online

mentoring, access and opportunity to work with tutors and peers, and access to others who have experiences with tertiary learning. She emphasized that such communities of practice provided learners access to community knowledge, support structures, and shared interests.

### **Access to Technology**

Universities and other developers of distance learning, in responding to increased enthusiasm toward this mode of delivery (Maddux, 2004), are at times driven by the available technology rather than careful consideration of the end user’s access to resources, skill levels, or preferences. In Micronesia, access to computers is a key issue for teachers. Teachers often share limited computing resources at school and often do not have access to computers at home. This can impact their participation in a computer-based distance learning course. Even when teachers have access, there are other obstacles to regular computer use, such as lack of training on basic skills and lack of ongoing support. The issue of computer access was discussed in the literature on distance learning.

Zepke and Leach (2002) discussed the fact that the Maori learners in their study had lacked individual access to computers. Due to this issue of access, the learners could not easily avail of the desired pedagogical experience, in this case face-to-face interactions via video technology transmitted via the Internet. It is important to consider how a lack of access can render an otherwise viable technology solution unusable.

This background on distance learning, cultural learning styles, and access to technology informed the design of the courses in Pohnpei and Ebeye.

### **Case Studies of Pohnpei and Ebeye**

To examine the experience of participants in distance learning courses in Micronesia, PREL collected evaluation data on a distance learning course conducted twice in the first half of 2006. The courses taught by PREL were the first in a series of courses that participants could take, with the choice of getting a “third year certification” or a bachelor’s degree. This first course of the series served as a pilot of the degree program that is in development by PREL and Park University. This first pilot course was called Literacy I: Basic Reading Strategies. The course content focused on reading strategies for K–8 teachers.

The Department of Education in Pohnpei, FSM, and the Ministry of Education in the RMI endorsed the planned program and informed teachers who were likely to be interested. The Pohnpei course took place from February 24 to April 1. The same course took place on Ebeye from May 10 to July 6. The courses were taught by two different instructors who used the same curriculum and content. Both instructors were reading specialists who had worked in Micronesia for many years and were familiar with the setting and context.

### **Pohnpei Setting and Participants**

Pohnpei is one of the four states of the FSM, consisting of one large island and six atolls. The population of Pohnpei is approximately 37,000 (1999 estimate). Pohnpeian, a Micronesian language, is the dominant language of the

Islanders, and two Polynesian languages are also spoken by groups of outer islanders who live in Pohnpei. English is widely spoken.

As the national capital of the FSM, Pohnpei is the site of the College of Micronesia (COM-FSM) campus, which grants associate's degrees. Farrell and Wachholz (2003) note that:

85 per cent [of teachers] do not have a bachelor's degree and more than 30 per cent have only a high school diploma. With the current pay scale and physical conditions of the schools, it will be difficult to attract qualified teachers or to require current teachers to continue their formal education. (p. 181)

Faced with these challenges, the Pohnpei Department of Education invited teachers to attend the Literacy I course that was being offered by PREL in early 2006.

Twenty-two participants enrolled in the course. Twenty of the participants were grade 1 to grade 8 schoolteachers, one participant was a high school teacher, and one participant was a specialist for the Pohnpei Department of Education. All 22 participants have associate's degrees from local colleges.

### ***Ebeye Setting and Participants***

Ebeye is an island in the RMI. This small island is next to the U.S military base in Kwajalein. The island is densely populated, with more than 12,000 people living on its 80 acres. Marshallese is the main language spoken on Ebeye. English is also spoken as a second language.

Ebeye is part of Kwajalein atoll, located 270 miles from Majuro, the capital of the RMI. The options for higher education and continuing education on Ebeye are limited. The closest institute of higher education, the College of the Marshall Islands (CMI), is located on the island of Majuro, which is an hour away by plane. PREL and the RMI Ministry of Education identified Ebeye as a site for the bachelor's degree program. Due to its relatively remote location, Ebeye teachers have fewer opportunities for obtaining professional development than their colleagues in Majuro. This online degree program would give teachers a chance to further their education and obtain bachelor's degrees without having to leave their homes and jobs.

Fifteen teachers signed up for the Literacy I course on Ebeye. All teachers were from Ebeye Public School, a K–8 school. Ten teachers had associate's degrees and five teachers had high school diplomas. The participating teachers taught grade levels ranging from 1–8, and the group included one special education teacher.

### ***Course Structure***

At both sites, the participants gathered weekly for 2.5 hours. In Pohnpei, since the participants were coming from different schools and locations, they gathered in a room at the Department of Education. On Ebeye, since participants were all teachers at the same school, they gathered in the computer lab after school. For the weekly session, the instructor used

*Illuminate Live!* to connect with the participants. The weekly sessions followed this model:

1. The instructor emailed documents to a site facilitator before each session. The site facilitator made copies of the documents for the participants. The site facilitators in both cases were from the islands, were proficient with productivity software and email, spoke the local language, and were available to help participants during and after sessions with content and computer-related questions.
2. During the session, the instructor delivered an interactive lecture that included showing a presentation with the week's topic and soliciting responses from participants on key questions.
3. Participants could listen to the instructor talking and see the visual presentation on screen at the same time. As instructed, participants could interact with the instructor via audio or text messages.
4. The instructor directed participants to engage in group work while they were gathered in class. Participants could interact in their first language while doing this group work.
5. The instructor assigned individual homework that participants were expected to do prior to the next class session. Homework included: (a) readings addressing theory and pedagogy and (b) application of and reflection about the lessons and strategies learned in the classroom.
6. Participants were expected to email group work and homework assignments to the instructor during the week.

### ***Data Collection***

To analyze participants' perspectives on their experience in the distance learning courses, we used surveys before, during, and after the courses and conducted interviews with selected participants (see Table 3). The weekly reflection journals that participants submitted were an important source of information on their feelings about the course. The reflection journals contained prompts eliciting responses about their experiences with technology and distance learning as they completed the course.

### ***Findings***

The data collected from participants in the two courses revealed some common challenges and successes. In general, participants responded favorably when asked about this experience with distance learning. Despite the challenges and frustrations that were reported, participants overwhelmingly said that they learned useful information that they were able to apply in their classrooms. Based on their experience with the Literacy I course, participants were enthusiastic about taking more distance learning courses and obtaining a degree. The next few sections detail the specific challenges and successes reported by participants in their reflection journals, in their end-of-course surveys, and in phone interviews.

**Table 3. Literacy I Course Evaluation Data Collection**

Data Collection Method	Data Collection Process
Interviews of Selected Participants	Phone interviews of five participants in Pohnpei Phone interviews of two participants on Ebeye
Document Analysis	Weekly reflection journals kept by participants Pre-course technology skills survey End-of-course evaluation survey Analysis of weekly debrief documents written by instructor
Observation	Observations conducted by evaluator

**Challenges for Participants**

The greatest challenge for participants in both Pohnpei and Ebeye was access to technology. The two main technology-related challenges were access to computers and the Internet and computing skills. A technology assessment given to participants prior to the course showed that 80% of Pohnpei participants and 50% of Ebeye participants used computers at least once a week. The remaining participants reported using computers at least once a month.

Having anticipated the challenges of varying technology skill levels, PREL had identified site facilitators who could help participants on an as needed basis. In Pohnpei, the Department of Education’s technology coordinator assisted participants with the technical aspects of the course. On Ebeye, the computer lab coordinator for the school assisted participants. In both Pohnpei and Ebeye, locally-based PREL staff members who were skilled with technology were site facilitators and provided additional help for participants with technology. This “just in time” assistance proved to be invaluable for participants. Several participants at both sites reported that this assistance with setting up email accounts and sending attachments to the instructor was much needed. Some participants in Pohnpei reported getting help from others, such as family members, to learn the technology skills as needed.

Several participants cited their lack of typing skills as an impediment to completing assignments. Not having had any instruction on typing and without the practice of typing text daily on the computer, several participants discussed how slowly they typed. Some handwrote their papers and asked a friend or family member to type the paper for them. More than two-thirds of the participants in both Pohnpei and Ebeye reported needing extra assistance with email and sending attachments via email. Participants who had received their associate’s degrees in the past 5 years were more comfortable with these computing skills because they had used computers during their classes.

A bigger challenge was the access to computers. In both Pohnpei and Ebeye, participants had trouble accessing computers to type their homework. In the Pohnpei group, all but one participant reported using computers at their schools. Participants who used computers at their schools often used a

shared computer in the school office. A few participants had obtained permission from their principals to use the computer over the weekend. The lack of ready access to computers created challenges for participants with busy teaching schedules. Several participants said they had to use the computers after school when they also had to do lesson planning and other schoolwork. Without computers at home, it was not possible to use computers in the evenings and on weekends.

On Ebeye, though there was a computer lab with computers that participants could use, problems with software rendered most of the computers unusable. Participants relied on sharing two or three laptops that belonged to the site facilitator and the vice principal of the school. When one of these people left the island for other work, the participants struggled with very limited access to computers on which they could do their homework. With only one Internet connection through which to send their homework, they worked closely with the computer lab coordinator and the site facilitator to transfer and send files to the instructor.

A lack of reliable infrastructure and the cost of connecting to the Internet were other reported challenges. In Ebeye, electrical power was shut off for hours at a time daily, often without prior notice. In Pohnpei, a few participants who had computers at home discussed the lack of Internet access at home and the costs of buying a phone card. In Pohnpei, one rural school that ran on gas-powered electrical generators had no electrical power when the gas supply ran out. It often took a week for the gas supply to be replenished. These inconsistencies with the basic utilities necessary to use the computers and Internet impacted participants’ abilities to consistently complete and send assignments to the instructor. Despite these challenges, participants sent in assignments steadily. Instructors remained aware of these challenges and remained flexible. On a case-by-case basis, they worked with participants to accept late assignments and provide time for make up assignments.

For many participants who speak English as a second language, there were additional challenges related to the course content being in English. During the interviews and in the reflective journals, some participants expressed their appreciation of having this opportunity to practice English. The participants who were interviewed did not find the course content too difficult. While no one reported specific challenges related to the language issue, instructors were aware that for many participants who were writing in a second language, the intensive writing assignments could be challenging. Several participants reported that they were able to clarify content-related questions when doing their group work. Participants were free to communicate in their first languages during group work, which could have helped foster shared clarification and deeper understanding of challenging concepts.

When asked about whether their involvement in an online course posed challenges with respect to other family and community responsibilities, participants did not report conflicts in these social or cultural realms. Participants commented that when they signed up for the course, they made it a priority and were able to juggle their other responsibilities around the course expectations. Some participants stated that they worked on coursework mostly on weekends due to after-school family

obligations, while others said they worked on the course after school each day because weekends were dedicated to family and community. Cultural factors to take into account were ceremonial and religious events, which lasted for several days. During Easter week, three participants had to miss a class session because of an obligation to spend the week on another part of the island for church-related activities. One participant said that multiday traditional rites, such as those that take place for funerals, would have caused him to miss classes. Overall, participants prioritized their participation in the course and managed to complete the coursework despite the challenges of access and infrastructure.

### **Successful Experiences with Distance Learning**

When asked what they liked most about the Literacy I course, participants consistently reported that they benefited greatly from learning strategies that they could put to use in their classrooms immediately. The course content and assignments were deliberately structured to allow participants to use the strategies being learned immediately in their classrooms. The participants who were interviewed by phone reported being able to use the strategies weekly. They enjoyed seeing evidence of the strategies working with their students. One participant reflected that this course was the first chance she had had to take a formal education class since her associate's degree was a liberal studies degree. It seemed that learning new applicable strategies was useful for many of the participants who had not previously received systematic training in instruction in the areas they taught.

The instructors of the Literacy I courses provided weekly opportunities for participants to work in groups to discuss and reflect on course content. Several participants said they enjoyed this format and learned from working with peers. When asked if they preferred individual work to group work, those who were interviewed said they liked both formats. Many liked working individually since they could reflect and write on their own. People liked working in a group, but preferred not getting graded on group work for which they could not be personally accountable. Several participants said that they learned from each other's experiences in the group assignments and also used this opportunity to clarify and further understand concepts being taught in class.

End-of-course evaluations and phone interviews revealed that participants liked the weekly sessions with the instructor over Elluminate *Live!* Despite some of the technical difficulties, like audio problems and delays connecting, comments about Elluminate *Live!* were largely positive. Participants especially liked being able to interact with the instructor. The one challenge with the sessions was that there were several participants and some felt that they did not get enough time to talk to the instructor personally. Four of the seven participants interviewed said they would have liked additional time to talk with the instructors, possibly via phone. Some participants who were daily email users said they wrote to their instructor regularly and felt this method was an adequate way to get the one-on-one communication they wanted with the instructor.

Though people had varying challenges getting to class, all the participants responded favorably about the expectation that

they attend a 2.5-hour class session once a week. The Pohnpei course met on Friday afternoons after school. While this time worked for a majority of participants, a few of them who had to travel from rural schools to the main town for the course said it was challenging to be there on time because the course started shortly after the school day ended. However, the weekly session seemed to be an acceptable part of the course for most participants, even the people who traveled long distances to be there. Another travel-related challenge was transportation. Some participants from distant schools did not have reliable transportation. They had to rely on rides from others or take taxis to get to the weekly sessions.

Participants in both the Pohnpei and Ebeye courses expressed interest in continuing with future courses and expressed appreciation for the opportunity to get further training via distance learning. Of the 19 people who started the course in Pohnpei, 17 successfully completed the course and received a passing grade. Of the 15 people who took the course on Ebeye, 13 completed the course. In both cases, a few participants who were not able to complete the coursework withdrew from the course in order to avoid failing it. In several cases, participants needed extra time after the end of the course to finish the coursework. The participants had legitimate reasons for this need, especially due to the limited numbers of computers they shared and limited Internet access. Instructors communicated with participants on a case-by-case basis to provide this accommodation as necessary.

### **Recommendations for Designing Distance Learning Courses for Micronesia**

The case studies reported in this paper provide a snapshot of the promise that distance learning holds for educators in Micronesia, while concurrently highlighting the pervasive challenges met in remote locations that have difficulties with infrastructure. The following recommendations are based on the evaluation data collected and observations of the course.

#### **Key Factors for Participant Success**

- Synchronous Learning Opportunities
  - Participant reflection journals and interviews revealed that the weekly opportunity to interact with the instructor was appreciated. In lieu of face-to-face communication, the weekly Elluminate *Live!* sessions sufficed in providing the real-time communication that people value.
- “Just-in-time” Technology Support
  - The onsite facilitators in the courses provided vital and timely help to participants. Many participants said that the onsite facilitators supported them in learning the computer skills they needed during the course.
- Varied Learning Formats
  - In their reflection journals and in interviews, participants noted that they enjoyed the group work they were assigned to do during class sessions and the independent work they were asked to do for homework. While people had individual preferences for one or the other, many participants agreed that both

modes were useful to have in the class. Group work helped people learn from others and clarify course content. Independent work gave people the chance for reflection.

- Connecting to Practice
  - As supported by the literature on adult learning, participants reported great satisfaction with the fact that their learning was immediately applicable to their work in the classroom. When asked what made them feel most successful, many participants reported “learning new strategies” that could be immediately applicable. Those interviewed on the phone said that seeing their students respond and learn through these strategies was very gratifying for them.

### **Key Considerations for Instructors**

- Grading
  - Several participants expressed their preference that they be graded on independent work but not on group work, since they could be more accountable for their individual work. As a result, for the second course, the instructor gave credit for completed group work and gave grades for homework.
- Setting Course Expectations
  - While clear course expectations should be set in the class syllabus, instructors will need to remain flexible to accommodate some of the unexpected issues that occur. Participants are in situations where computer and Internet access is limited and expensive, and utilities are not consistently reliable. These types of infrastructure challenges in Micronesia are a reality that instructors needed to take into account.
  - Instructors should ask participants to communicate about factors that will impact participation in the course. For instance, participants may have cultural and social obligations around holidays that have different implications in Micronesia than in a Western context. These factors will vary, so it is important not to make generalizations across communities and islands. Actively providing a means for participants to communicate their individual situations is important.
- Language of Instruction
  - While English is widely spoken in Micronesia, it is a second language for many people. Instructors should be aware of participants’ varying levels of English proficiency when choosing course reading material and grading assignments.
- Assessing Computer Access and Skill Level
  - Having an awareness of participants’ computer/Internet access and skill levels with computers can help instructors establish realistic expectations and be prepared for challenges that may arise during the course. Instructors can determine this information by assessing participants’ scenarios through a short survey before the course starts.

## **Conclusion**

Perhaps the most important lesson learned from participants’ perspectives on the two courses examined by this report is that their situations and needs are unique. Participants were overwhelmingly positive and appreciative of this opportunity to further their learning. Despite the challenges and frustrations they faced due to limited computer and Internet access, participants remained enthusiastic about continuing to take courses in this format.

Designers of distance learning courses should query local facilitators about key infrastructural factors when developing a plan for the course. Local facilitators can provide valuable information on when a group of participants can meet and what sorts of resources they will have access to. In addition, instructors should query participants once a course starts to find out if there are individual issues faced by participants, such as a lack of regular computer access, and obligations that affect participation in courses. While instructors can ultimately decide what accommodations they are willing to make, this recognition that one size does not fit all for distance learning initiatives in Micronesia is an important one in supporting those who choose to participate in these courses. With some flexibility and willingness to appraise the needs of participants and to design courses accordingly, providers of distance learning can create a viable mechanism to provide educational opportunities.

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**P**acific Resources for Education and Learning (PREL) is an independent, nonprofit 501(c)(3) corporation that serves the educational community in the U.S.-affiliated Pacific islands, the continental United States, and countries throughout the world.

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