Online PPST Preparation for the Pacific

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Abstract: The PRAXIS I® PPST exam is widely used as an entry requirement to teacher preparation programs, and as such represents a barrier for some to enter the teaching profession. Preparation programs have successfully increased student success rates on the PPST. A new online preparatory program is available through the University of Hawai‘i-Mānoa (UHM), including diagnostic pretests and individually tailored content delivery paths in math, reading, and writing. By partnering with Pacific Resources for Education and Learning (PREL), the College of Education at UHM has made this system available to Pacific nations. Participants evidence a preference for preparing in one or two of the PPST content areas rather than all three. Availability of individual content preparation systems has been made available to encourage student use. An improved licensure rate based on successful PPST completion is expected in response to system availability.

The Hawai‘i Department of Education (HDOE) hired between 1,363 and 1,698 teachers annually between 2001 and 2005. Of new hires, 39.3% to 42.8% held degrees from Hawai‘i institutions. Of these in-state degrees, the College of Education at University of Hawai‘i-Mānoa (COE) produced 55% to 67.4%, making it the single largest contributor to the new teaching workforce in Hawai‘i public schools (State of Hawai‘i, 2006).

To be considered “highly qualified” as a school teacher, licensure from the Hawai‘i Teacher Standards Board is required. All candidates for licensure in Hawai`i are required to take competency tests administered under The Praxis Series including the PRAXIS I®: Pre-Professional Skills Assessments (Hawai‘i Teacher Standards Board, 2003; Hawai‘i Teacher Standards Board, n.d.). Passing scores on each subtest of the PPST, as defined by the Hawai‘i Teacher Standards Board, are entry requirements for credentialing programs at the College of Education at University of Hawai‘i-Mānoa. Successful completion of the PPST is therefore a prerequisite to entering the teaching profession through these programs.

Many colleges and universities, including COE, also use PPST Assessments to evaluate individuals for entry into teacher education programs (Educational Testing Service, 2006). PRAXIS I®: Pre-Professional Skills Assessments (PPST) are designed to measure basic skills in reading, writing, and mathematics. The PPST is a set of three subtests, one each in the three basic skills areas of mathematics, reading, and writing. The use of PPST scores has come under scrutiny from a variety of authors, as it has been critiqued as a weak predictor of program success and may be duplicative of less expensive or concurrently available test scores (Mikitovics & Crehan, 2002; Lawrence & Crehan, 2001). However, the PPST remains as a widespread entry requirement to teacher preparation programs – including the College of Education at University of Hawai‘i-Mānoa, the largest teacher preparation institution serving Hawai‘i and the U.S.-affiliated Pacific islands.

Successful completion of PRAXIS examinations; which may include PPST, Principles of Learning and Teaching and/or Subject Area assessment, is also an impediment to licensure for currently employed teachers. HDOE categorized 942 teachers, or a full 59.3% of the total teaching workforce, as “emergency hires”. Of these emergency hires, 624 or 39.3% of the teaching staff “have completed a teacher education program but have not completed all PRAXIS examinations” (State of Hawai‘i, 2006). It is likely that only a portion of those missing PRAXIS completion need the PPST specifically, however, the need for an effective system of assistance to these teacher is obvious. Emergency hires have a limited term of potential employment without successful PRAXIS completions.

Preparation for the PPST exams is sometimes available through in-person preparatory courses or through self-study. Educational Testing Services (ETS) offers downloadable documents on “Reducing Exam Anxiety”, “General Information and Study Tips”, and “Test at a Glance” including sample exam questions. Study books are available from publishers such as McGraw-Hill, Cliffs Test Prep, and Kaplan. Students, however, tend not to prepare for the exam, and those that do strongly favor free or inexpensive activities such as taking a sample test (Stricker & Wilder, 2002). Preparation for the PPST has been noted as difficult, that only minor remediation is possible, and that forty percent of PPST retakes fail to change scores (Garcia, 1986).

Effective preparation is possible, however. Gosa (2001) found that an eight week preparation course significantly improved the mathematics, reading, and writing subtest scores for participants. Salinger and Burns (2001) noted that a pre-screening program including sample mathematics, grammar and writing tests was successful in increasing students’ PPST success rate. Stricker and Wilder (2002) noted that students tend not to prepare for the exam and suggested that greater opportunities for accurate feedback about likely PPST performance occur so that test takers can gauge their need for preparation. To serve students in a geographically dispersed service area with a preparation course is difficult. An online, interactive system of test preparation could be a unique and potentially powerful approach in this situation – especially if it could provide both practice and personalized remediation opportunities to participants.

The first author undertook a project in 2003 to provide an online PPST preparation program to Hawai‘i teacher candidates. Through a partnership between University of Hawai‘i-Mānoa, Maui Community College, and the U.S. Department of Labor’s Rural Development Grant; a perpetual license to PLATO® Web Learning Networks’ PPST preparation system was negotiated for the University of Hawai‘i. This system is provided to prospective teachers as a preparation option for PPST examinations.

The program is unique in that it provides students with a diagnostic pretest that both simulates the actual PPST sub-tests and generates a profile of learning needs unique to the each student. Based on this profile, the system provides a personalized set of lessons that are delivered interactively online. Students can study on their own schedules and access the system at any time during their enrollment period. Resident and non-resident fees are $85 and $125 respectively, which covers the cost of a systems administrator who enrolls and assists students.

The authors are currently collecting data from online participants in Hawai‘i and from study groups in American Sāmoa where classroom instruction is being used in combination with the online system. A recent development is the promotion of this online preparatory system to Pacific nations through a partnership with Pacific Resources for Education and Learning (PREL). This partnership is promoting the system to students in the Commonwealth of the Northern Mariana Islands in late 2006. The program will be released to other constituents in Guam, Chuuk, American Sāmoa, Pohnpei, Marshall Islands, Kosrae, Palau and Yap in the upcoming year.

As a first review of this online system, the authors undertook a brief summary of student activity. Between January and October of 2006, 71 students used the online system. Sixteen were enrolled through the University of Hawai‘i – Mānoa Outreach College, which meant they responded to advertisement efforts or word-of-mouth. Students enrolled in College of Education cohorts (groups who proceed through a program in synchronous fashion) also used the system. Sixty five students in three cohorts (cohorts number 13, 14, and 15) participated in a pilot effort with the College’s American Sāmoa program. Cohort number 15 used the system in their student teaching semester, the others during coursework preceding student teaching. Overall, students averaged 0.88 hours in preparation for mathematics, 1.16 hours in reading, 1.24 hours in writing, and 3.28 hours on their overall preparation effort.

Table 1. Average Student Time on Task – All Students Included

	N	Math	Reading	Writing	Overall
General Enrollments	16	0.81	0.53	0.22	1.56
Cohort 13	17	1.70	2.12	1.66	5.48
Cohort 14	21	0.92	1.87	3.00	5.79
Cohort 15	24	0.36	0.30	0.30	0.96
All Students	81	0.88	1.16	1.24	3.28

Note. Values represent time in hours.

Given the enormous content available for study within the online system, the authors had expected mean time investments to be higher. Of those students that used all three subtest preparation systems, the most time invested by a single student was 24.83 hours. The authors noted that many students opted not to use all three subtest preparation options, concentrating their full effort in one or two of the areas. Of these students, the most time invested was a total of 27.56 hours by a single student – spent exclusively in reading and writing preparation (no time spent on math).

Many students clearly had a preference for preparation in one or two of the subtest areas. Of the 81 users, only 19 students used all three subtest preparation systems (mathematics, reading, and writing). 62 students skipped one of the content areas entirely. By excluding non-users from the denominator for time on task calculations, the authors found the average time on task for each preparation area as reported in Table 2. This measurement presents a more accurate picture of how students use each of the subtest preparation systems.

Table 2. Average Student Time on Task, Non-users Excluded by Content Area

	Math	Reading	Writing
General Enrollments	1.85 N = 7	1.42 N = 6	1.19 N = 3
Cohort 13	2.06 N = 14	2.26 N = 16	1.88 N = 15
Cohort 14	1.94 N = 10	2.80 N = 14	4.84 N = 13
Cohort 15	1.45 N = 6	1.04 N = 7	1.82 N = 3

All Students	1.89 N = 37	2.18 N = 43	2.95 N = 34

Note. Values represent time in hours.

There are several noteworthy observations that can be extracted from the data. Average student use is only about 2 to 3 hours in a subject. Students generally seem to need preparation assistance in one or two areas, as evidenced by the low number of participants who spent time in all three areas (19 of 81). In order to promote use of the online system, and thereby assist more prospective teachers to succeed on the PPST, the authors concluded that it would be useful for students to have the option to subscribe to individual preparation areas. The online system can accommodate subscription to individual subtest preparation content (ie. reading only, without access to math or writing systems) with a bit of administrator intervention. The system is now available to the public on this basis for a reduced fee.

The most frequently used preparation areas for general enrollments were math and reading. Students also spent the most about of time in these areas, hence the authors predict that the math and reading sections will comprise the highest number of individual subscriptions.

Cohort 15 spent the least amount of time on all three sections of content, both calculated as a group (Table 1) and with section non-users excluded (Table 2). This is likely due to students' fuller time commitments during student teaching.

Cohorts 13 and 14 spent more time on each content area than did those who enrolled individually (general enrollments). This was true when comparing entire groups (Table 1) and when comparing time on individual content areas (Table 2). Because these cohorts were introduced to the system as a group and had a group leader guiding their use of the system, it is likely that the group environment fostered additional system use.

Determining the success of the online preparation system will require collection of additional data. The authors intend to compare the diagnostic pretests, practice tests, and actual PPST scores of aggregated groups; examining any correlations between system use and PPST success. Additional work will be required to look for connections between PPST scores and success indicators during preparation for licensure.

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