Project TEACH is a 2-year preservice teacher education program housed at the Green River Community College in Auburn, Washington, and linked with K-12 schools, community colleges, and university undergraduate programs. The program is designed to: (1) recruit more talented students into the teaching profession; (2) provide practical and diverse early field experiences; (3) strengthen math and science in elementary schools through content courses designed for future teachers; and (4) improve the preparation and retention of future teachers through activities, new courses, and a new career pathway. According to this paper, 40-49% of future teachers choose to begin their higher education at a community college. Community colleges are ideal grounds for recruiting a teaching force that reflects our increasingly diverse society. Project TEACH has developed the Associate Pre-Professional Degree (APP), a transferable associate's degree for future elementary teachers. Students can earn the Associate of Arts (AA) and the APP simultaneously. Project TEACH also offers Summer TEACH, a summer tutoring program for future elementary teachers; the Teachers of Tomorrow Club, which offers a wide range of campus clubs and activities; and inservice training, which offers training in mathematics and science to local teachers. Includes program curriculum. (Contains 14 notes and references.) (Author/NB)
Project TEACH: Creating a Pathway to a Teaching Career

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Project TEACH: Creating a Pathway to a Teaching Career

Keith Clay, Ph.D., Christie Gilliland, M.S., Leslie Heizer, Ph.D., Steve Kinholt, Ph.D., Pam Reising, M.A.

Project TEACH is a two-year preservice teacher education program housed at Green River Community College in Auburn, Washington, and linked with K-12 schools, community colleges, and university undergraduate programs. Designed to create comprehensive and enduring improvement in the preparation of future teachers; Project TEACH has implemented innovative teacher preparation activities, including preservice learning activities, interdisciplinary science courses, mathematics courses focused on the needs of elementary teachers, and an Associate Pre-Professional degree (APP) for future elementary teachers. Project goals include:

1) To recruit more talented students into the teaching profession;
2) To provide practical and diverse early field experiences;
3) To strengthen math and science in elementary schools through content courses designed for future teachers; and
4) To improve the preparation and retention of future teachers through activities, new courses, and a new career pathway.

Community colleges are the “missing link” in the recruitment and preparation of future teachers. For the 40% - 49% of future teachers who choose to begin their higher education at a community college, opportunities to make connections to the teaching profession have been non-existent or minimal. While some high schools have teaching academies that provide early experiences for students interested in a teaching career, those who continue their educational careers at a community college have generally experienced a two-year void in terms of ongoing connections with the profession.

Located in diverse communities, and committed to serving their local areas, community colleges are the ideal grounds for recruiting a teaching force that reflects our increasingly diverse society. Approximately 45% of first-time undergraduates attend public community colleges and a growing number of these 5.7 million are low-income, minority students. Two out of every five prospective teachers, and well over 50% of Hispanic and African-American teacher candidates, study mathematics and science at a community college. At Central Washington University, the second largest teacher certification institution in Washington State, the number studying math and science at the community college level has remained between 42% and 46% for over five years. Community colleges also enroll many older students who are preparing for career changes. The coming shortage of teachers demands that recruitment efforts are extended to this group. While the proximity of community colleges to diverse pools of future teacher candidates makes them ideal institutions for helping to solve future shortages, historically they have not been significantly involved in most teacher preparation models.

As further evidence of problems with current models of teacher preparation, many students who complete teacher certification programs at universities never enter the profession. Some
estimates place this number at 32%.8 Earlier explorations along a defined teaching career pathway would better insure that those who enter university certification programs are certain of their career choice. Successful recruitment efforts will require that students gain exposure to education programs during their first two years of college.9 Students should not be expected to defer enrollment in programs which will further their teacher education careers until they reach the upper-level university.10

In 2001, Dr. Rod Paige, Secretary of Education, noted that recent gains in mathematics scores (based on the National Assessment of Educational Progress) were greatest in states that had established standards for student achievement, tied curriculum to standards, and regularly tested students on learning.11 As the person who delivers curriculum, the teacher is a critical player in student achievement. Immersing future teachers in relevant education about educational standards, about how to deliver curriculum to meet standards, and about appropriate assessment will ultimately positively impact students in the K-12 system.

With funds from the National Science Foundation, the original efforts of Project TEACH (1999 – 2001) focused on improving the mathematics and science backgrounds of future teachers, as well as on providing future teachers direct experiences with children. Recent efforts (2001 – present) have expanded efforts across the curriculum, introducing future teachers to the Washington State standards for K-12 learning (the Essential Academic Learning Requirements, or EALRs) in their general education content courses. As a result of Project TEACH activities, teacher education candidates have a better foundation for their formal teacher preparation courses and future teachers are better prepared to implement the EALRs in their classrooms.

Project TEACH was designed as a reproducible model; our hope would be that by the year 2025, all community colleges have strong teacher preparation efforts on their campuses (currently, approximately 20% of community colleges in the United States have formal teacher preparation activities available to students.)12 Project TEACH has implemented a number of teacher preparation activities, outlined below. Community colleges interested in teacher preparation efforts might choose to implement one, several, or all of these activities.

Tracking

One of the most critical elements of providing relevant experiences to future teachers is identifying students interested in education as a career. If we can’t locate them, we can’t offer them valuable preservice activities. To that end, Project TEACH has developed a tracking system with a number of different potential entry points for students. At Green River Community College, all students applying for admission to the college must go through initial advising in the Educational Planning Center. There, students are coded as interested in education in the general student database; at this point, they are referred to the Project TEACH Center and invited to an initial group advising session. At the advising session, students fill out a questionnaire identifying whether they are interested in teaching at the elementary or secondary level, or in becoming paraeducators. Data from the questionnaire are entered into the Project TEACH database, which is linked to Green River’s student management system. It is thus possible to track students through their career at the community college, including course-taking patterns, tutoring placements in K-12 schools, and professional development activities. We also attempt to
track students after they transfer to 4-year schools by having them fill out updated contacted information. We have periodically surveyed students after transfer; overall, Project TEACH students have expressed a greater sense of satisfaction with their first two years of preservice education, particularly their skills and attitudes in mathematics, than have native students.13 If students do not attend an advising session based on the recommendation of their Educational Planner, they may decide to attend after seeing advertising about Project TEACH around campus; they will also be invited to become Project TEACH students when they take Introduction to Education. Periodically, all students identified in the Green River student management system as interested in education who have not yet attended an advising session are invited to attend.

Advising

A number of different advising activities for education students are available at Green River. As noted, students interested in education as a career first see a general educational planner and are invited to a group advising session. Four hour-long group advising sessions are held each quarter. At the advising sessions, students meet one another and receive information on Project TEACH through viewing a slideshow and conversation with a Project TEACH advisor. Students also receive an extensive reference binder with a variety of resources. In addition to suggested course-taking patterns for the pathway of interest: elementary education, secondary education, paraeducator and Montessori certificate courses, students receive information on certification, Project TEACH, and transfer programs available throughout Washington. The second half of the advising session is open for question and answer. Many established Project TEACH students attend the advising sessions to have ongoing dialogue with an advisor.

Students are also assigned both to an individual Project TEACH advisor who is prepared to assist them with planning their two years at Green River Community College, as well as to a transfer coordinator in Educational Planning. This advising team works closely together to ensure that Project TEACH students are prepared to transfer smoothly to the 4-year institution of their choice. Students planning to teach at the secondary level also work closely with an advisor in what will be their major area of study at a 4-year institution to ensure that they have chosen the proper prerequisites and will make timely progress toward a degree.

Courses

Across the curriculum, Project TEACH has developed a number of courses particularly relevant for future teachers. Education core courses include Introduction to Education, which provides students an overview of education as a career as well as the history of the education system in the US and current issues that educators face. The Introduction to Education course also includes a 1–3 credit lab component, which consists of tutoring placements in the K-12 system. Through this course, future teachers receive early field experience, often within their first quarter of enrollment. In addition, students have early opportunities to discern if they might be interested in teaching at a different grade level, be interested in other jobs within the K-12 system, i.e., school librarian or counselor, or if perhaps they wish to choose another career pathway. When students exit the program, they take a 1-credit Teacher Portfolio Review class in which ongoing
professional education activities are evaluated. *Introduction to Special Education* is also available at Green River.

Within the math and science divisions, *Project TEACH* completed the implementation of Foundations of Elementary Mathematics—number theory, geometry, and probability/statistics, in which students explore math with a focus on inquiry-based learning and the Washington State EALRs. In 2000-2001, GRCC also implemented the Interdisciplinary Science sequence, which draws from physics, chemistry, biology and geology, using climate and global change as a theme to develop basic concepts in science. Students use inquiry-based learning to explore measurement, analysis of data, hypothesis generation and testing.

These year-long courses have a direct impact on future teachers by providing examples and experiences of constructivist teaching and learning. Since teachers are likely to teach in the same style they learn, inquiry-based students are more likely to become inquiry-based teachers who will provide knowledge-building experiences for their own students.¹⁴ In addition, students learning in these ways are deepening their own content knowledge.

Beginning in the fall of 2002, future teachers will also have an opportunity to complete modules relevant to teacher education within many of their content courses. For example, in a speech class, a student might be assigned a speech on teaching elementary students. Completing a teaching focused assignment in many general education classes assists students in developing cross-disciplinary thinking skills and an integrated understanding of the world around them. It also encourages students to think about teaching methodology early in their education, as well as about the Washington State goals (EALRs) a teacher must meet in addition to providing interesting and relevant learning experiences. Relevant courses across the curriculum are particularly critical for elementary teachers, who are called upon to be "experts" in all areas of knowledge. When preservice teachers graduate from GRCC, their portfolios (reviewed in the Teacher Portfolio Review course mentioned above) will contain examples of projects completed in all of the EALR areas.

**The Associate Pre-professional Degree**

In addition to specific courses relevant for future teachers, *Project TEACH* has also developed a transferable associate’s degree for future elementary teachers. Washington State has a direct transfer agreement (DTA) through which students who complete the requirements for an Associate of Arts or Science degree at the community college transfer all their credits to public and private four-year institutions and begin there at the junior level. This agreement ensures timely progress toward degree for transfer students.

The transferable AA is embedded in the Associate Pre-professional Degree (APP) in Elementary Education. Students who plan carefully can achieve the AA and APP simultaneously, and graduate with an AA with an Education emphasis. The APP was designed not only to fill all the transfer requirements for the statewide DTA but to provide future elementary teachers with a solid content foundation in all the subject areas they will be required to teach, including mathematics, science, the humanities, social science, and fitness/wellness.
Associate Pre-Professional (APP) 
Degree in Elementary Education 

Course: 

English 
ENGL 110 – College Writing 
ENGL 111 – Writing in the Humanities 
   or ENGL 112 – Writing in the Social Sciences 
ENGL 180 – Children’s Literature 

Credits: 5 

Humanities/Fine Arts 
SPCH 100 – Basic Speech Communication 
Electives – 10 credits from courses with prefixes of: 
   ART, MUSIC, DRAMA or DANCE 

(To be eligible for the AA degree in addition to the Pre-Prof degree, 
you must choose from two different areas and have no more than 
5 credits of performance or skills classes. See AA degree for a list 
of the performance/skills classes.) 

Social Science 
PSYCH 100 – General Psychology 
   or PSYCH 210 – Developmental Psychology 
ANTHR 202 – Cultural Anthropology 
   or AMES 100 – American Ethnic & Minority Studies 
Electives – 10 credits from courses with prefixes of: 
   HIST, GEOG, POLI SCI or ECON 

Science 
IDS 101 – Interdisciplinary Science I 
IDS 102 – Interdisciplinary Science II 
IDS 103 – Interdisciplinary Science III 

Mathematics 
MATH 170 – Foundations of Elementary Math I (Number Theory) 
MATH 171 – Foundations of Elementary Math II (Geometry) 
MATH 172 – Foundations of Elementary Math III (Prob. & Stats) 

Fitness/Wellness Activities 
PE – Fitness Course 
Activity Elective 
HL ED 190 – First Aid and Personal Safety 

Professional Core/Practicum 
EDUC 170 – Introduction to Education 
EDUC 172.1 – Tutoring in the Elementary Schools 
EDUC 110 – Child Development 
EDUC 197 – Introduction to Special Education 
EDUC 270 – Teacher Portfolio Review 

Total 98 to 100 

IMPORTANT: The information in this document reflects an accurate picture of programs at the time of publication. The college reserves the 
right to make necessary changes in procedures, policies, and requirements. When possible, changes will be announced prior to their effective 
dates. Nothing contained herein shall be construed to create any contractual rights. Information contained about Washington State requirements 
and those of 4-year institutions may not be current. Each student is advised to seek out the most current information before making decisions.
Washington State is now working on developing a template for such a degree that could be offered at all of the community colleges. The APP is being used one model for this degree. In addition, Washington State is looking at developing a template for transfer degrees in mathematics and science for future secondary mathematics and science teachers.

Summer TEACH

The Summer TEACH tutoring program is a joint venture between Green River Community College and area school districts. The program brings together two or three master K-8 teachers from the district with area college and high school students to tutor elementary students from the district. The program has two primary goals. First, to offer preservice teachers meaningful hands-on experience in tutoring mathematics under the guidance of master teachers identified by the district as outstanding in mathematics instruction. The second is to provide elementary students with an opportunity to learn mathematics in a hands-on, fun environment in an attempt to show them that math can be fun and they can be successful at it. The program is designed to improve both competence and confidence. The tutors work with K12 students in a ratio of one tutor to two students.

The Summer TEACH program has been offered for three years on GRCC's main campus in conjunction with the Auburn School District and for two years at our GRCC Center at Enumclaw in conjunction with the Enumclaw School District. The districts chose to target students who will be entering the fourth grade the following fall and needing additional help in mathematics based on their (Iowa Test of Basic Skills (ITBS) scores. The program is three weeks long, Monday - Thursday, 8:30 - 12:30. The tutors receive eight hours of training prior to the program plus one half hour of prep time each morning and a half hour of debriefing time at the end of each day. The fourth grade students attend from 9:00 - noon each day for a total of 36 contact hours during the program. The curriculum is designed by the master teachers and focuses on the Washington State Essential Academic Learning Requirements (EALRs) in mathematics. These students will take the Washington Assessment of Student Learning mathematics test (WASL) in the fourth grade.

The program is evaluated by Kit Peixotto of the Northwest Regional Education Laboratory in Portland, Oregon. Evaluation components include before/after attitude surveys from the fourth graders, tutor surveys, tutor interviews, parent surveys, and a correlation between the elementary students ITBS and WASL scores once the students have taken the WASL and scores are available.

Teachers of Tomorrow Club

Students at Green River have the opportunity to participate in a wide range of campus clubs and activities. The Teachers of Tomorrow Club is one of the most active clubs on campus. In their bi-weekly meetings, students listen to speakers on various aspects of teaching, watch videos on education, learn about transfer requirements, and discuss issues relevant to future teachers. Working with the club advisors, students also plan and host a Future Teachers’ Conference each spring. This day-long professional conference offers high school, community college and 4-year pre-service education students an opportunity to learn about aspects of teaching relevant to their level of preparation.
In-service training

Beginning in 2002, Project TEACH has offered in-service training in mathematics and science to local teachers. Courses are provided both by contract to individual districts, based on their need, and through open enrollment to teachers from any district who wish to attend. Based on surveys of local school districts, a majority of teachers are willing to travel to the community college for in-service training, but are unable to travel further out of district for quality continuing education in mathematics and science content. As state and national standards become more widespread, the need for continuing education in math and science becomes ever more critical.

Website

The Project TEACH website (www.projectteach.org) serves as an information clearinghouse and resource for preservice and in-service teachers in the Green River service area. The website is also a resource for dissemination. Community colleges interested in implementing teacher preparation activities on their campuses will find forms, grant summaries, course syllabi, advising session schedules, Teachers of Tomorrow Club activities, and the Project TEACH newsletter, The Report Card, on line.

Concluding Thoughts

Perhaps the primary reason that Project TEACH has been a success is that we have learned that community colleges can play an important role in the process of teacher preparation and we understand that current K12 teachers are critical to this process. We also understand that community colleges and colleges of education can work closely to design a better program. While this now seems almost common sense, many past models of teacher preparation have only involved current teachers for a few weeks during field placements or student teaching in the junior or senior year. When current K12 teachers, community colleges, and universities are involved throughout the preparation process, everyone benefits and the well-prepared teachers that emerge from this model will more likely want to be involved in the preparation of future teachers. When these teachers stay connected to Project TEACH and return to help, the full cycle of teacher preparation is completed.

The cycle of teacher preparation begins when a student decides that they want to be a teacher. For many, this decision is made early. The Project TEACH model allows a high school or community college student who is thinking about a teaching career to immediately engage in early experiences to explore the profession. K12 classroom teachers serve as mentors throughout and help students make important connections with children and curriculum.

While still in high school, a student can begin to explore teaching through Teaching Academies or Teacher of Tomorrow Clubs. Opportunities to participate in the community college’s Summer TEACH tutoring program and the Future Teachers Conference provide connections with exemplary K12 teachers and to college students who have already begun their formal preparation.
Project TEACH has helped the community college become an important new partner in the cycle of teacher preparation. Because of the linkages we have established with both the K12 system and the university's college of education, we have been able to revise our curriculum to target the needs of future teachers. And, we have been able to embed experiences with Washington's Essential Academic Learning Requirements (EALRs) and other new curriculum standards in these courses. Throughout their two years at the community college our future teachers continue connections to the profession through K12 classroom placements, a teacher club, targeted college courses, and tutoring programs.

The Project TEACH model also benefits the university's college of education. Our students are entering their programs with foundation courses that are more appropriate for teachers and with numerous hours of experience in public school classrooms. Most are certain of their career choice. Some who have changed their minds about teaching are already on their way to other career choices. Another benefit of the Project TEACH model is that the connections formed between the community college and the college of education allow for a more articulated preparation program.

The school districts also benefit with this model. The districts receive the benefit of community college students who serve as classroom assistants and tutors during the school year and help with summer tutoring programs. But perhaps more important, we are finding that many students return to the local districts which surround the community college to look for their first teaching job. Our model helps districts "grow their own teachers."

And finally, the most important benefactors in this new model of teacher preparation are the kids. They benefit from the extra help from the future teachers during the summer tutoring and during the many hours of school placements that we required as part of the community college's curriculum. They will also benefit when Project TEACH students become certified teachers and they continue to mentor future teachers as the cycle of teacher preparation continues.

\[\text{Activities developed and reported on in this paper were sponsored in large part through grants from the National Science Foundation, the Department of Education, and the Washington State Higher Education Coordinating Board.}\]

\[\text{2 Northwest Regional Education Laboratory, The preparation and certification of k-12 mathematics and science teachers in the northwest: Recommendations, programs, and resources. Portland, Oregon: 1996; Curry, J. The role of the community college in the creation of a multi-ethnic teaching force. ERIC Digest, ERIC Document Reproduction Service No. ED 317542, 1985.}\]


\[\text{4 NWREL 1996.}\]

\[\text{5 CWU Office of Institutional Research, July 1998.}\]


\[\text{7 Ignash, J. Describing the non-liberal arts community college curriculum, ERIC Digest, ERIC Document Reproduction Service No. ED 358894, 1992.}\]

\[\text{8 Carnegie Foundation for the Advancement of Teaching. Prospective teachers: Career choices. Change, 19, 31-35.}\]

\[\text{9 Curry, 1985.}\]


George Boggs, President of AACC, in presentation, September 2001: "Currently, only 229 of the nation's 1200 community colleges have teacher preparation programs."


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