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Proficiency-Based Admissions Standards: University - High School Collaboration

Dalton Miller-Jones

Portland State University

Abstract— Many analyses of student achievement in America have concluded that students are graduating from high schools inadequately prepared to enter colleges, universities or workplaces. One response to this situation has been the call to establish high educational performance standards. In 1993 the Oregon Board of Higher Education initiated an important change in educational policy when it approved the development of performance standards to determine admission to institutions of higher education in the state of Oregon. The motivations for adopting a proficiency-based admissions system for higher education included: (1) many students emerging from the reformed kindergarten through high school (K-12) system would have neither traditional grades nor course credit hours (i.e., Carnegie Units) for subjects such as English, algebra, and history, so that university admissions offices would need some alternative means to determine the adequacy of students' academic preparation; (2) "grade inflation" - students are receiving higher and higher grades, such that grade-point-averages (GPA) could no longer serve as a reliable basis for differentiating among students; (3) assigned grades themselves had different meanings across schools and teachers, so that the meaning of an "A" grade from a course with a given title varied from one teacher to another; (4) national university admission test scores (e.g., the Scholastic Aptitude Test) were not reflecting the actual levels of competence of students entering the university, thus forcing universities to expend dwindling resources on the remediation of students' academic skills; and finally (5) in 1993 the Chancellor of the Oregon State System of Higher Education (OSSHE) adopted a policy that required each institution of higher education to include measures of student "... outcomes, (e.g., the learner's demonstrated mastery of defined knowledge and skills)" as a key indicator of each campus' productivity.

This article describes the processes involved in the formative development of Oregon's Proficiency-based Admission Standards System (PASS). The analysis examines the factors that lead to strong collaboration between university and high school faculties including: (1) *collegial respect* - university faculty began to understand the challenges of teaching secondary school students in conditions typical for U.S. public schools (e.g., crowded classrooms; inadequately prepared students; many extraneous duties in addition to basic instructional responsibilities; need to remain knowledgeable about specialty subject matter); (2) *opportunities for discovering a shared commitment to student learning* - faculties have so little contact with one another within and across institutions that finding out about one another's work is difficult; (3) *acknowledging expertise* - high school teachers highly valued their collaboration with postsecondary faculty while developing the PASS because they felt treated as professionals and equals with college and university faculty; and (4) *consequences of the PASS for performance-based instructional practice in higher education.* The article describes how Portland State University, in particular, has responded to these collegial collaborations with strong ongoing ties to local area high schools.

Why is there interest in university-high school collaborations? On what basis do teachers from high schools and universities form collegial working relationships? The traditional divisions of educational responsibility have tacitly assigned secondary schools the task of preparing students in areas of basic abilities while reserving for university faculty the role of generating the new knowledge to be consumed by the K-12 school systems, industry and society. Although on average only about 30% of high school graduates have traditionally enrolled in higher education institutions in states like Oregon (though a larger percentage engage in other forms of postsecondary education or training), almost all of the high school curriculum is structured and organized around college preparation. Only a relatively small

percentage of students experience vocational courses not designed for college preparation. The asymmetry of power and status implied by this disproportionate influence of higher education on the high school curriculum, together with the greater prestige society accords to university teaching, could hinder collegial interactions between faculties from the two systems. The development of an educational system with smooth transitions from kindergarten through university (K-16) in the United States requires the close collaboration of high school, college, and university teachers.

This article describes educational reform efforts in Oregon and the role of university-high school collaborations in developing new admissions standards for higher education. While many states have begun to explore ways to establish and implement standards, the case study of Oregon is of special interest because Oregon is attempting to introduce standards and performance assessments in all of its public schools, kindergarten through college. This article will first provide a brief historical background of standards-based reform in the United States and in Oregon. Next, the Proficiency-Based Admission Standards System (PASS) is described. Special emphasis is given to the nature of interactions among faculty from K-12 and higher education. Finally, the paper attempts to extract and highlight key principles that lead to productive and truly collegial collaborations.

THE CONTEXT FOR THE DESIGN AND IMPLEMENTATION OF A PROFICIENCY-BASED ADMISSIONS STANDARDS SYSTEM

A critical problem facing public education in the United States today is the need to establish standards for school performance that are realistically high and to develop performance or proficiency-based assessment systems to measure these standards with special concerns about issues of fairness and equity (U.S. Dept. Education 1994; Darling-Hammond 1994; Howe 1994; Gagnon 1995). There has hardly been a single decade this century where some movement to reform public education hasn't promised a solution to the problems in American schools. Yet by most measures, the kindergarten through university public education system is failing to produce significant numbers of students who can function at high levels of literacy, numeracy, and critical thinking, and who have an informed and heightened sense of social or civic responsibility. The national dialog regarding the inadequacies of American public education has lead to wide-spread efforts to reform educational practices throughout the United States. Seymour Sarason (1982) argues that many of these reforms often fail because they disregard the culture of the schools and the degree to which teachers are willing to join the process of change.

EMPHASIS ON PERFORMANCE ASSESSMENT

The most recent attempt to leverage school reform involves the use of performance-based assessments. The thinking is that if we specify what a student should actually know and be able to do to demonstrate this knowledge or skill and if we hold educators responsible for these performances standards, then the schools will have to fundamentally change in order to accomplish this goal.

Assessment is the primary means for holding educational institutions accountable for assuring that students attain specifiable learning outcomes, not just for providing opportunities to learn (Stiggins 1993). In this new environment assessment entails how we describe the change we produce in students as well as what we do that leads to these results. This is a radical departure from an eighty year tradition where the primary purpose of assessment was to sort students by ranking them according to some objective measures of achievement. Stiggins (1993) argues:

> As long as schools sorted well, we were satisfied. It didn't even matter what they sorted on, as long as they produced a credible ranking criterion. For example, ...it was acceptable for two teachers teaching the same course in the same high school to hold completely different expectations of their students, rely on completely different assessments...and have an A in one class mean something fundamentally different from an A in the other and no one cared! Why? Because, regardless of the underlying meaning of any grade, each teacher contributed a grade which could be combined with all other grades to generate a grade point average which in turn permitted the determination of a rank in class, which would suffice for sorting." (1993:6).

The problems with this system are transparent. It always leaves a significant proportion of the student population unable to participate in school or the work place - they are relegated to menial low wage employment. Employers are finding that graduates' class rank does not correlate well with their competence to perform on the job and they have begun to demand more direct evidence of ability.

This performance standards approach to educational reform has had its critics. Because reform based on performance standards are often the result of some state authority mandating change, such as a legislative act, they frequently lack the support of classroom teachers (Clark & Astuto 1994). Some argue that just imposing standards will not automatically change the way teachers teach (Pogrow 1996). Administrators are sometimes resistant to reform efforts be-

cause they are expected to implement changes without adequate financial resources to reorganize the school or engage teachers in appropriate retraining. Despite these very real concerns and criticisms, there remains broad support for taking a standards-based approach to reform in Oregon.

In Oregon, as is the case nationally, educational restructuring has been the result of two broad concerns. First, there was a move to institute criteria of success that require that students actually demonstrate their competencies. Second, national attention to the role of education in workforce preparation has led to calls for reorganizing K-12 and community colleges to better meet the economy's need for a workforce professionally and technically trained to world class standards.

K-16 SCHOOL REFORM IN OREGON

Oregon is among the first states in the U.S.A. to create a proficiency-based admissions standard system (PASS) for its entire higher education system. It is important to note that there are two separate state-wide governing boards that establish policy for: (1) the kindergarten through 12 grade and community college system (the Oregon State Board of Education); and (2) the seven institutions of higher education (the Oregon State Board of Higher Education-OSBHE). There is a Chancellor of Higher Education who heads an office of the Oregon State System of Higher Education (OSSHE). Adopting the PASS framework by the OSBHE was a direct response to the Oregon State legislature passing House Bill 3565, Oregon's Educational Act for the 21st Century[2], in 1991, a blueprint for K-12 school reform. The purpose of Oregon's Educational Act for the 21st Century was to upgrade the education of Oregon's youth to make them "the best educated citizens in the nation by the year 2000 and a work force equal to any in the world by the year 2010." A key provision in the legislation addressed a major problem for school improvement in the United States: the lack of clear standards for learning and the means to enable all students to meet these standards.

The legislation dictates that two certificates be developed based on student's mastery. First, the act calls for the development of a Certificate of Initial Mastery (CIM), where students, by around what is currently the 10th grade, will demonstrate they have attained proficiency in a number of areas. For example, the state department of education has developed a set of "rigorous academic content standards" and a series of criterion-referenced tests and performance-based assessments designed to determine student competency in nine areas: math, science, English, civics, history, geography, economics, second languages, and the arts. Students must also demonstrate foundation skills like: think critically, solve problems, self-directed learning (planning), communicate effectively through reading, writing, speaking, and listening, use technology, and to work collaboratively.

After completing the CIM, students must demonstrate another set of competencies in order to receive a Certificate of Advanced Mastery (CAM). Students will typically take two to four additional years of study concentrated in one of six occupational endorsement areas: Arts & Communication; Business & Management; Industrial and Engineering Systems; Health Services; Natural Resource Systems; and Human Resources. Students are expected to gain an understanding of these board categories and to be exposed to a range of careers within the endorsement area of their choice. In order to earn a CAM students must demonstrate abilities in core academic areas, for example: English (reading, writing, speaking and listening, and literature); Mathematics (calculations and estimations, statistics and probability, algebraic relationships, geometry, mathematical problem solving, etc.).

We have concerns for the preparation for higher education for all students in the system. The language in the original legislative act implies a two-tiered system: one for technical education leading directly into job settings and another for the academically oriented leading to college entrance. OSSHE and Portland State University (PSU) have worked to assure that all students at any point in their education will have the option, that is, the preparation, to go to one of the institutions of higher education in the state. This has lead to two areas of activity: (1) PSU faculty involvement with local high school in designing courses of study related to the CAM and that have sufficient academic rigor; and (2) PSU faculty and administration participation in the design of the Proficiency-based Admissions Standards System (PASS) for higher education.

RATIONALE FOR PROFICIENCY-BASED ADMISSIONS STANDARDS

Although Portland State University has assisted in the design development and implementation of the CIM and CAM, for the most part higher education has been conspicuously absent as a participant in K-12 educational reform nationally (Conley 1996). Higher education admissions offices faced the prospect of having to evaluate student performance data that they had little influence in determining. Many students, perhaps a majority, emerging from the new K-12 school reform system will not have the traditional credit hours (Carnegie units) and grades for subjects like English, math/algebra, and history. The admissions process will also not have class ranking to use as a basis for determining preparation for college work. Universities might be faced with the prospect of having truck loads containing portfolios of

student's work arriving at their admissions offices. This was a primary impetus for considering changes in higher education admissions policies and practices. There were other compelling reasons as well.

Grade Inflation

Nationally, college admissions officers have reported steady increases in the average grade point-average among applicants. The University of Oregon admissions requirement has increased from about a 2.0 (about a “C”) in the 1960’s to a 3.0 (about a “B”) in the 1990’s. Higher and higher grades (grade inflation) and grade point-averages (GPA) meant universities could not differentiate as well among students with GPA’s clustered in the high 3.0 to 4.0 range. Such "ceiling effects" gave rise to the need to reexamine GPA's as one of the major components in the admissions formula. Further, the claim that high school GPA is a good predictor of college success may be specious. Indeed, it is suspected that correlation is due in large measure to the extensive overlap of curriculum from the last years of high school and the first year or two of college. Finally, grades themselves had different meanings, that is, what a grade of "A" meant in two courses with the same course title, varied from one teacher to another.

Scores on College Aptitude Tests

Tests of general academic ability like the Scholastic Aptitude Test (SAT) have been used in the admissions formula as a check against inflated grades students might receive from less academically rigorous high schools. While somewhat predictive of college grades, SAT scores were not predicting the actual level of competence for students upon entering the university, thus forcing universities to expend dwindling resources on remediation of students’ academic skills, e.g., in reading, math, and writing.

Need For Performance Standards

Most university campuses are experiencing the high financial costs required to offer remedial courses for students while at the same time higher education funding is being cut. In addition, students are taking increasingly longer to complete their degrees and this adds to costly inefficiencies. In 1993 the Chancellor of the Oregon State System of Higher Education (OSSHE) adopted the recommendations of the Task Force on Faculty Workload and Productivity and required each institution to "...broaden our agenda to include increased student productivity as a central goal. That goal invites us to shift from an emphasis on institutional inputs (e.g., enrollments, courses taught, credit hours expenditures), to outcomes, (e.g., the learner's demonstrated mastery of defined knowledge and skills)."

To summarize, higher education has had to devote increasing resources to the remediation of students admitted to colleges and universities with reasonably high GPA's and SAT scores. Admissions directors have reported grade inflation or compression of GPA scores near 4.0 (ceiling effects) make prediction of students’ preparation for university work based on these indices less reliable. In addition, K-12 reform efforts in states like Oregon will eliminate traditional measures such as Carnegie Units and grades, replacing them with performance-based products sometimes in the form of portfolios of student work. These trends led the Oregon State Board of Higher Education to adopt a new proficiency-based admissions policy in 1993.

BRIEF HISTORY OF THE “PASS”

Given these sweeping changes in the K-12 system, the Oregon State System of Higher Education (OSSHE) and the State Board of Education (SBE), which governs high schools and community colleges, met in July, 1993 to discuss the implications of not having the use of grades and course credits and of using performance standards in the admissions process. As result of these discussions higher education agreed to develop a list of knowledge and skills requisite for college enrollment.

OSSHE's Vice Chancellor for Academic Affairs funded a pilot project, “Shared Perspectives: Creating a Dialog on Standards for Education in Oregon,” that began defining the competencies desired among its entering first year students. The 32 member task force was composed of *equal numbers of university faculty and local area high school teachers.* This indicates the kind of spirit of collaboration that has a been a hallmark of the PASS from its very earliest moments of development. To provide an initial specification of competencies desirable in first year students, this pilot project designed *indicators, performance levels, and possible assessments* in six content areas: (1) science; (2) mathematics; (3) foreign languages; (4) social sciences; (5) music, drama and fine arts; and (6) writing and written reasoning.

The inclusion of representatives from high schools as partners in this formulation should not be surprising because one of the project's joint directors was Professor David Conley who spent the first half of his academic career teaching in public high schools and has great respect for the abilities and dedication of teachers. This respect and regard for high school teachers is very significant for forming fully functioning teams, given the asymmetry in power and prestige between university and secondary school faculty alluded to earlier in this essay.

The OSSHE Vice Chancellor for Academic Affairs then asked Professor Conley to develop a full proposal for a study of proficiency-based admissions. Based on reviews of documents reporting national standards for various subject matter areas (e.g., history, mathematics, science, English and literature, etc.), a preliminary draft detailing definitions of proficiencies in 6 content areas and 9 process competencies

was reviewed by representative faculty from each of Oregon's seven higher education campuses, as well as representatives from the community colleges and high schools, during four separate all day sessions. A final set of content proficiency statements with extended definitions resulted from these sessions and the draft proficiency standards was presented to the Oregon State Board of Higher Education (See Appendix).

Oregon's State Board of Higher Education (OSBHE) passed this new proficiency-based admissions policy in 1993. It directed the Chancellor's office develop this system as the *primary basis for admission to Oregon's seven colleges and universities effective Fall 2001*. Under the leadership of Professor David Conley and with funds from several agencies -- the Pew Charitable Trusts, the U.S. Dept. of Education Fund for the Improvement of Postsecondary Education, and the Fund for Innovation in Education -- over 40 proficiencies in math, science, humanities and literature, social sciences, visual and performing arts, and second languages have been defined by over 80 faculty representatives drawn from all seven higher education campuses. A three tiered assessment system is in its formative stages of development. The system will be composed of *criterion-referenced* selected response content tests; *common performance assessments, and teacher verified assessments*. As much as 70% of the overall assessment may be teacher verifications, which may effectively replace teacher assigned grades.

Shortly following the adoption of the PASS, the community college system began work on developing a set of Proficiencies for Entry into Programs (PREP). Because of an open enrollment policy that has no admissions requirement for taking community college courses, the PREP would apply only to admissions into specialized programs of study like nursing, graphic arts, or automotive repair. The PREP is being designed to be consistent with the CIM, CAM, and PASS systems.

The next phases in the PASS project development have been exciting, bringing together high school teachers from 32 high schools, including all 12 high schools in metropolitan Portland. In the development cycle this year, the PASS have over 210 teachers from thirty high school throughout the state officially participating in the development of proficiency assessment procedures (e.g., obtaining student work samples, developing scoring guides, scoring criteria, etc.). These secondary school teachers form teams at each site, with seven teachers, one from each of the six content areas (lead assessors) and one serving as a site coordinator. The other major activity involves the development of more standardized assessments using content tests. The PASS project has been working in a collaborative arrangement with Oregon's State Department of Education to ensure that assessments being developed for the K-12 system's Certificate of Initial (CIM) and Advanced Mastery (CAM) will also be transferable to the PASS standards, thus permitting students to apply some of their CIM and CAM scores toward meeting some of the PASS proficiencies.

The PASS performance standards have been adopted as graduation targets by the Portland Public Schools, which is the largest school district in the state and serves the most culturally diverse population in the state. This presents a unique opportunity for PSU to establish collaborative working groups of faculty. On what basis can these groups of teachers form working relationships?

AREAS OF COLLABORATION

Research and Development of the PASS Proficiencies, Criteria for Assessment

The initial specifications of proficiencies in math, science, humanities and literature, social science, and fine and performing arts, along with preliminary definitions of corresponding performance standards, been developed by teams composed of secondary school, community college and university faculty. Teams have met for at least eight full days over the past three school years and have spent two weeks together working on PASS during two "Summer Camps." These sessions can easily be characterized as ones in which all participants had equal roles in discussions about student learning. Higher education faculty left these meetings openly expressing respect and admiration for high school faculty and their work, and I might add somewhat daunted by the prospects of having to do such demanding work themselves! At the same time, high school faculty expressed their appreciation for being treated as respected and knowledgeable professionals. The PASS project is in the process of conducting a more systematic evaluation of these attitudes. It is in these contexts that the principles outlined below have emerged.

General Principles of Collaboration

Based on ethnographic methods, my analysis of the nature of the collaborations that evolved in the formative development of the PASS includes the following factors that lead to strong faculty collaboration:

• Collegial respect. University faculty began to understand the challenges of teaching secondary school students in conditions typical for U.S. public schools (e.g., crowded classrooms, inadequately prepared students, lots of extraneous duties in addition to basic educational responsibilities, need to remain knowledgeable about one's subject matter specialty). Faculty from higher education frequently commented on their admiration for the competence and commitment they witnessed in the secondary school colleagues.

• Opportunities for sharing commitments to student learn-

ing. Conversations among working groups and interviews with participants suggests that most teachers who have participated in PASS have developed a revitalized sense of a broadly shared commitment to student learning. Recognition of this shared commitment fact led to efficiencies in communication essential to discussions about what students ought to know and be able to do. For example, in the context of such a project, it would not be surprising to find individuals attempting to establish their expertise or subject matter knowledge. One seldom witnessed any such attempts to dominate the decision-making process by assertions of one's academic authority. This I attribute to the common concern for and focus on student learning.

• Acknowledging expertise. High school teachers participating in developing the PASS have reported their interactions while working on the PASS as among the most rewarding they have experienced, because they feel treated as professionals and as equals with college and university faculty. Faculty have visited one another's teaching settings and shared teaching techniques and successful practices. There has been the sense that there is genuine sharing of expertise.

Finally, especially for me, there have been consequences of the PASS for performance-based instructional practice in higher education. Portland State University has initiated the development of a series of workshops and support processes for academic departments designed to engage faculty in a dialog about assessment. The Provost, Michael Reardon, has established a Center for Academic Excellence which sponsored several *Classroom Assessment Techniques* (Angelo & Cross 1993) workshops and follow-up informal luncheon discussions about effective assessment and teaching strategies. Most academic units of the university are developing plans for including assessment of student learning outcomes among indicators of their faculty productivity.

Freshman Inquiry

Portland State University, in particular, has responded to these collegial collaborations with strong ongoing ties to local area high schools. One area of significant collaboration involves the development of Freshman Inquiry, the initial component of PSU's reformed general education program (see White & Ramaley, *this issue*, for further details about PSU's general education reform). Freshman Inquiry courses have been developed at two Portland High Schools. The implementation includes the sharing of teaching faculty between PSU and the high schools. Four faculty and several graduate students from PSU are teaching with their secondary school colleagues *in the high schools.*

Standards-Based Teacher Education Project

Another component of the PASS project involves the development of training modules to prepare new teachers for a performance standards educational environment. The Standards-Based Teacher Education Project (STEP) has five teams of teachers, each composed of a veteran master high school teacher, a relatively new or novice high school teacher, a faculty member from a higher education campus' College of Liberal Arts and Sciences with content area expertise, and a faculty member from one of OSSHE's schools of education. Each team member has selected a proficiency in their specialty content domain, designed an instructional unit to assist high school students to achieve this proficiency, collected samples of students' work, and attempted to score the work using the PASS scoring criteria. While engaged in this process, faculty are keeping journals of their experiences with and thoughts about this process. These teams meet several times during the year to discuss their work. The product of the teams' work will be compiled into a set of recommendations for pre-service teacher training.

Bias and Fairness in the PASS Assessment

Another area of collaboration involves establishing procedures for monitoring and ameliorating biases and inequities in a proficiency-based admissions standards system for Oregon. Teams of high school teachers representing diverse cultural communities have been meeting over the past six months to begin identifying areas of practice that need careful scrutiny and that need policy. The essential components include:

• A review of assessment tasks and scoring systems for face (content) validity, structural elements (e.g., selected-response or constructed-response items versus teacher verifications), and procedures that might lead to differential performances for groups such as women, Latinos, African American, Native Americans, lower socioeconomic status students, etc., and procedures that might lead to differential performances for groups such as women, Latinos, African American, Native Americans, lower socioeconomic status students, etc.;

• the use of national experts in assessment to participate in the review of the PASS assessments and to advise the Oregon State System of Higher Education in the construction and generation of a schematic for examining assessment tasks and procedures on an on-going basis; and

• establishing panels comprised of higher education and secondary school faculties, representatives of "stake holder" organization (e.g., Urban League, Latino and Native American state-wide organizations, etc.), and parents to review the combined psychometric and enrollment data in order to make recommendations for teacher training and for the construction and modification of the admissions system. The initial core group of teachers should be joined by panel participants from various community-based organizations, parent groups and other stake holders when the assessments are close to final form.

Several investigators have argued that an appropriate evaluation of an assessment system for bias should not be confined to the immediate assessment situation (Miller-Jones, 1991), but should include consideration of the "opportunities to learn" the knowledge or skill. Winfield and Woodard (1994) conclude that the "top-down" imposition of standards may not lead to equitable learning outcomes, if the system ignores gross inequities in the quality of instruction (e.g., classroom practices, availability of resources and support services). It will be important then to conduit research which provides essential information for determining the extent to which students experience similar learning opportunities. Panel teams will have the responsibility to examine these classroom effects. Over the last two years, the PASS project has developed a number of sites in which to conduct this kind of analysis.

Panels might also be responsible, in order to assess the fairness of the PASS, for developing a method to examine the rates of application, admission and enrollment in higher education by students from key populations. The panel, along with expert consultants and community representatives, could frame recommendations to the Oregon State System of Higher Education for modifying the PASS. These data should be of considerable importance in designing effective preservice and inservice training for teachers on working with the PASS.

Higher education faculty have been called upon to contribute to defining the content and process proficiencies, to assist with developing knowledge domains for the PASS content proficiencies, to work with high school teachers on PASS research and development activities including developing new teacher education criteria (STEP Project). University faculty are also being asked to participate in University Implications Teams on each campus to identify areas of university operations that might be affected by the PASS (e.g., admissions, assessment of basic skills such as writing and mathematics). Some faculty have received small stipends for their work in the PASS. Others have been "rewarded" for their participation primarily through intrinsic incentives, that is, through their interest in making qualitative changes in educational practice and by acknowledging their "good citizenship!"

INCENTIVES FOR COLLABORATION

Broad participation by higher education faculty in developing the PASS is necessary to insure wide acceptance of the PASS process and products. Support is needed for involving larger numbers of university faculty on a more sustained basis for the development of specific assessment tasks, instruments, and procedures.

Incentives for participation differ somewhat for the two teaching communities. High school faculty have been given several *release days* from teaching to work on various aspects of the PASS. Examples include: developing instructional curriculum targeted to the PASS proficiencies; developing assessment tasks and scoring criteria, collecting samples of student's work; and participating in "Verification Institutes" with higher education colleagues to determine the level of work that *meets the standard* for a proficiency.

The incentives recommended for sustaining both groups in these collaborations include:

- Release time and/or course reductions
- Professional recognition and credit for teaching while working on collaborative efforts
- Professional development opportunities through *paid* faculty fellowships, stipends or internships
- Opportunities to participate in training workshops, travel to conferences, and support for their teaching and scholarship (e.g., teaching or research assistants)
- Modification of tenure, promotion and merit pay guidelines to acknowledge contributions made to the development of the CIM, CAM, PASS or PREP.

CONCLUSION

PSU has taken seriously the need to develop performance-based standards for our admissions and enrollment management procedures, as well as for our programs of instruction. Our faculty and administrators have been working with local secondary schools to develop the CIM, the CAM and the Proficiency -Based Admissions Standards System. Over 24 Portland State University faculty have participated in the development of the PASS project. These faculty have contributed to defining the competencies and indicators of proficiency within the areas of math, science, social sciences, writing, foreign languages, literature, the humanities, and the visual and performing arts.

Portland State University faculty, students, and administrators have worked tirelessly on behalf of responsible school reform. These efforts increase the role of the university in K-16 educational reform. In many ways the impetus behind school reform is the development of a high quality workforce that has first rate knowledge, skills, and attitudes. Survey after survey and study after study indicate that such a workforce will need more education not less. That education needs to be a liberal education not just training in the current technologies.

Efforts are underway to design of a K-16 system that establishes 1) high academic standards; 2) an integrated curriculum that can engage learners from diverse socioeconomic and cultural/linguistic backgrounds; and 3) assessments that

provide accurate and valid information about students' knowledge and abilities. Despite these encouraging efforts, much hard work remains. A particular problem has been the structural barrier within the overall educational system. Two separate legislative and fiscally distinct boards set policy and govern the K-12 / Community College system and the system of higher education. Each board has its own mandate and is responsible to different funding sources. Until policy is established uniformly across the two systems, faculties will continue to operate as good neighbors, sharing ideas and solutions as they lean over the fence that separates their yards. An encouraging sign is the formation of a "Joint Articulation Commission", created to identify ways for the two systems to better coordinate and cooperate. In spite of this barrier, the strong focus on student learning in setting educational standards, in classroom practices, and in assessing performance has led to the development of significant relationships between faculty from high schools and higher education.

Why should higher education faculty be involved in educational reform efforts such as PASS? There is of course the obvious reason that these are the competencies we say we want our students to bring to our campuses. We can also provide much needed technical expertise and academic resources that will add greatly to the process of K-16 reform. Furthermore, our universities will benefit from faculty participation, as those faculty will bring a richer understanding of the PASS, an understanding which should lead to better pedagogy in higher education classes.

University faculty provide a unique conceptual span or perspective on content, given that their role places special emphasis on the generation and evaluation of new knowledge, whereas secondary and community college faculty roles have traditionally emphasized effective communication of this knowledge to learners. Of course, one of the significant changes this effort represents is that these traditional roles need to be broken down - all teachers need to be responsible for effective learning and all teachers can participate in knowledge generation. Involvement of all levels is necessary for creating a truly seamless K-16 system that permits equal access to educational resources and promotes lifelong learning.

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NOTE

[1] The original legislation was modified in 1995 in HB2991, but the academic standards were kept essentially intact.

APPENDIX

Extracted from:
Proficiency-Based Admission Standards System:
Content & Process Proficiencies
June, 1996 Draft
Oregon State System of Higher Education

Content Proficiencies: Extended Definitions

Mathematics is a form of communication that complements natural language as a tool for describing, defining, expressing, and answering questions about the natural world. Mathematics is a compact, carefully defined, symbolic language that facilitates modeling, solving, and communicating problems from a wide variety of disciplines, not only science and technology. Much of its utility derives from the power of abstraction, the ability to generalize and then apply constructs to particular problems. Mathematics is the science of logical reasoning and of pattern identification. It is a mode of inquiry that provides fundamental insights into the order of our world. Learning mathematics is a dynamic endeavor to acquire skills, processes, and concepts. Numeric, algebraic, and geometric concepts are fundamental vehicles for developing competence in mathematics. The processes of problem clarification, deduction of consequences, formulation of alternatives, and development of appropriate tools are as much a part of the modem mathematician's craft as solving equations.

Science is the rational and systematic observation, identification, description, experimental investigation, and theoretical explanation of natural phenomena. Natural and physical sciences include physics, chemistry, biology, geology, astronomy, and ecology. Science attempts to answer questions about the physical and living world. It involves critical thinking and logical reasoning. Science uses various methods of investigation, such as observation, comparison, experimentation, and mathematical manipulation of data. Science has practical application and has to be understood in its larger cultural context. It is through inquiry that students are able to view science as an interdisciplinary study applicable to society.

Social sciences focus on a wide diversity of social relationships, group arrangements, and human understandings that characterize human affairs over time and throughout the world. They include the study of social, economic, political, and cultural events as well as appropriate content from the humanities, fine arts, mathematics, and sciences. They offer concepts and methods for studying social events and processes at global, national, regional, local, and individual levels. The scope of the social sciences ranges from examining the mental processes of the human mind to the distribution of human beings on this planet, from understanding the functioning of human society to the causes and effects of technologies, from problem solving in small groups to the use of power internationally. Understanding the social sciences includes knowledge of theories regarding societal and group functioning, appreciation of the uses of empirical data and map analysis, awareness of how the careful study of contextual events explains the important influences that shape human life, and how this information can be used to address current issues.

Second languages include speaking, listening, reading, and writing in another language other than one's native language. Communication competence is attained through mastery of linguistic functions, grammatical structures, and lexical items. An awareness of different formal and informal registers, proper pronunciation, structural precision, and sociolinguistic appropriateness is gained with practice. Cultural knowledge is an integral part of a second language study. Such knowledge allows linguistic and paralinguistic behaviors to be recognized and executed, enhances understanding of societal norms and institutions, and deepens appreciation of the culture's artistic and intellectual achievements. Second language learning is a long term and cumulative process providing a springboard for critical and analytic thinking, insight into and understanding of human diversity, and understanding of subject matter across disciplines.

Humanities/literature explores the human experience through historical, linguistic, cultural, philosophical, and literary lenses. Students, teachers, scholars, and authors study what it means to be human by engaging in ongoing dialogue, inquiry, reading, and reflection. Thus, it is not possible to "master" humanities, only to enhance levels of thought regarding the human condition. What may be learned are habits of the mind that will enable learners to acquire, create, and critique knowledge throughout their lives.

Visual and performing arts are the cultural repositories of the qualitative dimension of life through the ages. They are also the contemporaneous expressions of the human condition. The fine arts serve both to improve the quality of life and to stimulate the senses in ways that enhance creativity and problem solving in a variety of disciplines beyond the arts. Study in music, theater, dance, and visual arts involves history and appreciation, analysis and aesthetics, interpretation and criticism, and performance and production. These content areas are concerned with the capacity for individuals and society to communicate and to receive ideas, information, and feelings in a variety of media. The visual and performing arts prepare one to work both independently and cooperatively and develop one's ability to make independent critical judgments.

Process Proficiencies: Extended Definitions

Reading is the process of decoding abstract symbols in order to understand their underlying message or meanings. Effective readers employ a variety of strategies to improve comprehension, to self correct, and to discover meaning in many types of text. A fluent reader can interpret a writer's literal and inferential meaning, recognize the differing goals

of different types of writing, use all of the features of a written document (e.g., tables, index, appendices, footnotes), vary the method of reading (skim, review, survey, analyze), and make connections between texts and personal experiences. Reading is undertaken for a variety of reasons, including enjoyment, information acquisition, comprehension, and critical analysis.

Writing is a tool for learning, for communication, and for self-reflection. Writing may serve to inform, stimulate, and challenge a variety of audiences. The writer organizes and clarifies her or his thinking so that it is comprehensible, informative, moving or entertaining to others when read. Conventions of writing, including grammar, syntax, spelling, structure, and voice, must be understood and mastered. The writing process contains a number of recursive dimensions, including prewriting, drafting, organizing, revising, editing, and critiquing. Effective writers employ a variety of written forms (e.g., stories, essays, journals, technical reports, poetry, research papers), and can evaluate, monitor, and critique their own writing to produce a coherent and polished result.

Listening and speaking skills are critical for competent oral expression. Such skills include the ability to ask clarifying and extending questions, express generalizations discovered through investigations and debate, persuade, initiate and sustain conversations. Other important skills include presenting feelings and emotions, sharing and exchanging ideas and opinions, giving directions, and critiquing oral presentations. Communication also involves understanding and appropriate use of verbal and non-verbal behaviors.

Analytic thinking is the ability to apply deductive and inductive thinking, make and test conjectures, follow logical arguments, judge the validity of arguments, construct simple valid proofs, understand and apply reasoning processes, develop appropriate criteria for analyzing data or opinions, distinguish fact from belief, identify cause and effect, and respond to multiple perspectives. Analytic thinking is necessary in all areas of study from the fine arts to mathematics.

Integrative thinking requires an understanding of the interactions within, between, and among natural, social, organizational, and technological systems, and the relationship of the individual to such interactions. Integrative thinking uses or combines information from a variety of disciplines in an integrated fashion to demonstrate understanding of the world, and to solve problems or create products. Integrative thinking requires the ability to synthesize and integrate information and observations from the parts to form a new pattern or framework for comprehending the whole.

Problem solving is a series of skills, some systematic, some intuitive, that are developed over time as the result of attempting many complex, non-standardized problems. Problem solving may be inductive, deductive, or non-linear. Effective problem solves employ many of the following techniques identifying the critical elements of the problem; developing mullet-step solutions in a non-routine fashion; generalizing familiar solutions and strategies to new problems and situations; generating alternative solutions and strategies for familiar problems and situations; conducting systematic observations and investigations to collect data; and considering the implications and unintended effects of proposed solutions.

Technology as a learning tool means coming to view any technology as an extension and enhancement of the human mind, not as a separate mechanical system. While the use of technology requires "content" knowledge, a vital key is the "process" ability to integrate the technology to facilitate inquiry, understanding, and production of knowledge. Using technology includes such skills as knowing how to operate and when to employ computers, on-line databases, telephones, fax machines, electronic mail and bulletin boards, and calculators; audio-visual and multimedia tools, including video cameras and recorders, projection systems, LCD panels, CD-Rooms, sound recording devices, and slide projectors. There is a hardware and software dimension to many technologies. Competent learners master both, with greater emphasis on the potentialities of the software dimension.

Teamwork encompasses the social dimensions of learning and doing. A learner who is proficient at learning socially works well with others to create products, solve problems, reach consensus, negotiate, and cope with conflict. Effective team members: a) understand the diversity present in any group and how it affects performance and goal attainment; b) demonstrate an understanding of the various roles present in groups; c) show the capacity to lead and follow, depending on the situation; d) understand the balance between individual and group contributions and responsibilities; e) understand both individual and group accountability; and f) show awareness of the role and potential uses of humor when people work together.

Quality work is the relative degree of excellence present in a student's work as compared to defined standards or criteria. Quality work may be evaluated along any of a number of dimensions, including its content, structure, presentation, insights, conclusions, or entertainment value. Quality work demands students capable of comparing their work continuously to internal and external standards. Schools striving for quality create an ethos in which the nature of quality is discussed and standards for achieving quality are identified. Quality work involves on going critique and evaluation of products as they evolve. Students with an understanding of quality can describe the nature of quality and of standards and can critique and evaluate the quality of product as they are being developed and when they are completed.

[2] The original legislation was modified in 1995 in HB2991,
but the academic standards were kept essentially intact.

〈要　約〉

熟達度ベースの入学許可基準
―大学 - 高校間協力―

1993 年にオレゴン州高等教育委員会 (Oregon Board of Higher Education) が，高等教育機関への入学許可基準の開発を承認した時, 委員会は教育政策の急進的な変更の口火を切った。熟達度ベースの入学許可基準システムを採用するための動機は以下の如くである：(1)「成績インフレーション」――学生はますます高い点数をとるようになっており，それゆえ点数の平均 (GPA) は学生を区別するための基礎の役目をしなくなっていた。(2) 成績それ自体が場合により異なった意味をもつ。同じ名称の講義でも，学生の勉強に対する「A」の成績の持つ意味は個々の教師で異なる。(3) SAT（Scholastic Aptitude Test，編者注：米国で高校生が大学に入るために受ける全国統一試験）の得点は, 学生の大学入学時の本当の適性レベルを示さなかった。したがって大学は，学生に大学で必要とされる技能を補習させるために，わずかしかない資源（教員数や教育時間）を増やす必要に迫られた。(4) 新しい K-12 学校改革システムで学習した多くの学生が, 英語, 数学（代数学）, 歴史などの伝統的な科目の単位（例えばCarnegie Units，編者注：中等学校において 1 科目を 1 年間履修した場合に与えられる単位）をとっていない。そこで大学の入学課は, 学生の学習能力を判断する別の手段が必要となっている。最後に，(5) 1993 年オレゴン州高等教育システム (OSSHE)は,「増加した学生の生産性」の計測値や学生の「学業評価 (outcomes)」（例えば，学習者が示した特定の知識や技能の証明）へのシフトに重点をおいた政策を採用した。

この論文は, オレゴン州において熟達度ベースの入学許可基準 (Proficiency-based Admissions Standards System, PASS) がどのように形成され，発展していったかについて述べる。分析は，大学と高校の教官の密接な協力をもたらす因子の吟味を含んでいる。(1) 大学側の関心――大学教官は，わが国の典型的な公立の中等学校の教育で行われている数々の挑戦を理解し始めた。（すなわち，混雑した教室，十分に予習しない学生，基本的な教育責務に加えて多くの本質的でない任務, 授業科目についての専門的知識を保持する必要性など）(2) 学生の学習に関与する機会――大学の教官は学部内でも学部間でもお互いに会う機会が非常に少なく，お互いの仕事を調べあうことも難しい。(3) 専門性の認識――PASS に参加している高校教師は，PASSで作業している間の相互交流により，きわめて価値ある経験をしたと報告した。彼らが専門家として扱われるとともに，他の委員から短大や大学の教官と同等な扱いを受けたと感じたからである。(4) 高等教育における熟達度ベースの教育訓練についてのPASS の重要性。本論文はとくにポートランド州立大学 (Portland State University) が, 大学と地域の高校との間で強い絆を保って進められている共同作業にどのように対応したかを述べる。

(Dalton Miller-Jones)