Placement and Assessment Work Group
Report to Developmental Education Taskforce
April 22, 2013

Workgroup Members
Doug Downs (chair; MSU), Bethany Blankenship (UM-Western), Brittany Budeski (Great Falls C), Karen Henderson (Helena C), Jim Hirstein (UM), Jan Lombardi (GEAR UP), Carole Pinnell (Flathead Valley CC), Mary Ann Sodja (MSU), Joyce Walborn (Helena C), David Hall (OCHE)

Summary
The charge of the Placement/Assessment work group was
- To research and compile current MUS assessment/placement models in developmental math and writing
- To research their effectiveness
- To identify and research the effectiveness and efficiency of other assessment/placement tools
- To make specific recommendations for a system-wide assessment and placement policy based on these analyses, guided by the mission differentiation of the campuses within the MUS.

We have completed this charge, finding the following:
- Across the MUS, there is more variation than consistency in placement tools and measures in math and writing. What is consistent is reliance on a single-test/fixed score model of placement.
- There is general satisfaction at MUS institutions with existing placement methods, particularly as modulated by personal assessment of placed students to ensure mis-placement is minimized and quickly corrected. There is no evidence of widespread deficiency in placement systems.
- While current placement methods are satisfactory, a number of alternative methods hold promise for optimizing and increasing the efficiency of developmental placement. Chief among these are multi-measure/variable-cut-score systems that allow consideration of high-school performance, enhanced preparation for math placements, and guided self-placement for writing placements.
- There is good reason for the mission-differentiated variability of placement tools and measures across the MUS, so that a system-wide placement policy would be unworkable except at the level of principle. These principle recommendations are offered in the conclusion of this report.

Preface: Remembering Students
In much literature advocating for developmental education reform is a missing element: students and their actual backgrounds and experiences (see, e.g., Burdman 2012, Core Principles 2012). Developmental students are often so infrequently and poorly described that in their place we find a monolithic, idealized recent high-school graduate who doesn’t actually need developmental education and simply scored a little low on one test one day. This hapless student, basically-ready-for-college and really just needing a little extra help, is prevented by systemic forces in labyrinthine institutions from progressing to a degree and, discouraged, drops out. This narrative fuels an image of dev-ed as too expensive, largely unnecessary, and more likely impeding success than fostering it.

In contrast, our research on placement in the MUS and nationally has often found this idealized narrative to be incomplete, failing to capture both all the reasons students might not complete degrees and the true value of their developmental courses even when these require re-taking or result in non-completion. These other stories, involving students’ life circumstances and individual educability, are not only
difficult to track by the quantitative means that reform conversations overwhelmingly favor, but are also inconvenient to the dominant narrative that the system is broken because it is inefficient. Many of our stories—similar to those conveyed in a recent *Chronicle of Higher Education* article on dev-writing (Hoover and Lipka 2013)—are of “inefficient” lives to which the State of Montana has, nevertheless, committed to provide access to higher education.

Silencing such student experiences and stories is convenient for proponents of reform intended to maximize system throughput (students attaining degrees with the greatest possible efficiency as measured by time and dollars) by minimizing preparatory coursework with its increased time to degree and expenses. It is less clear, however, that the mission of providing open access to higher education for *all students* remains a primary goal of these national reform efforts. Because we take as axiomatic the MUS’s commitment to open access, we strive to remember and to value, along with that loud narrative of dev-ed failure, the quieter, particularized stories of actual students—where they come from, what their dev-ed needs are, and what dev-ed systems will best honor the MUS commitment to open access. We strive to remember students for whom the odds of completing a degree are, by life circumstance, very long, and to design systems optimized *for them*, not simply for students most likely to succeed from the outset.

We remember, for example, that while to reformers the “failure” to complete 30 credit hours in the first year of coursework is a troubling sign, to advisors and to students who never believed they could even be admitted to college, completing 12 hours that first year may constitute a triumph. We remember that “efficiency” means creating the best match of resources to individual students, not assuming that the next great solution will work for *all* students any better than the last great solution did. And we remember that people, individual students, measure the success and quality of their education by a wider variety of criteria than most proponents of reform-for-efficiency wish to. We have proceeded with these memories in mind, and encourage those who use this report to do so as well: to learn about and remember the actual people to whom our developmental systems are designed to open the MUS. It is our workgroup’s express wish that a version of this preface be included in the Taskforce’s final report to the Board of Regents.

**Methods**

To proceed in its charge, the workgroup used the following methods:

- To ascertain current placement systems, the workgroup reviewed existing OCHE data on math and writing placement methods and fleshed these out by collecting “on-the-ground” narratives from those overseeing placement at most MUS institutions.
- To ascertain effectiveness of current placement systems, workgroup members reported the best data and/or narratives available from their own institutions, and sought data from those overseeing placement at institutions not represented on the workgroup, including conducting interviews with some faculty overseeing placement at other institutions.
- To ascertain alternative methods of placement and their effectiveness, workgroup members individually conducted reviews of literature and then pooled resources they found in order to summarize trends in the literature. The workgroup also sought accounts from MUS institutions of pilot programs and other alternative placement methods already tested or in use.
- Development of policy recommendations proceeded via discussion among the workgroup which considered the collected data.

**Current Placement Practices**

Emerging best practices for dev-ed placement include placing by multiple measures (including high-school performance) and guided self-placement. While some institutions are piloting some of these
practices, on the whole dev-ed placement in the MUS is based on single test scores. This section details both these common placement practices and alternative practices being tested in the system.

Math
Most MUS institutions use the COMPASS math placement exam in a single-text/fixed cut-score system. Exceptions include MSU-Bozeman and Gallatin College, which use an in-house, validated placement exam (MPLEX), and UM-Missoula and Missoula College, which use the ALEKS adaptive, computer-based placement exam. In addition, most colleges accept ACT/SAT scores (UM-Western, MSU, Gallatin College, MSU-Billings, Great Falls College, Helena College, MSU Northern, and MT Tech).

Cut scores on these placement exams vary considerably, usually in accordance with an institution’s actual developmental offerings. For example, placement into M095 requires an ACT of 19 or below at MSU-Northern, but a range of ACT 18-21 at UM-Western. It is not possible to summarize, or gain a systematic overview of, principles underlying cut scores. Variables include not only the cut score for a given exam, but a wide range of exam subscores (on the COMPASS, for example, pre-algebra, algebra, and college algebra subscores) and exam types (COMPASS, ACT, MPLEX, ALEKS) as well as differing dev-ed courses offered at particular institutions (M061, 065, 080, 090, 095, 096, 097, 098) and variations in uses of courses even of shared numbers across institutions, dependent on variations in student populations, instructional resources, and institutional missions. Differences between institutions’ cut scores do appear to be tied to the content that is taught at each level, meaning that, for example, some Introductory Algebra courses require a higher starting point of student knowledge than others. Cut scores across the MUS fall within the typical range of scores indicated in the National Assessment Governing Board’s 2012 national survey of cut scores in reading and mathematics (Fields and Parsad 2012).

Most innovation is in curriculum design rather than placement, but innovative curricula will likely impact placement over time. For example, different institutions are piloting self-paced courses, modular courses, enhanced computer-based instruction, mastery learning, acceleration, and integrated tutor support—as such innovations are validated with particular student bodies, we would expect that placement systems will be adjusted to take advantage of them. This may lead to placement becoming more complicated as curricula can support placement with greater precision, but it should increase overall efficiency. In short, innovative curricula will invite continued attention to placement as such curricula make available placement options that do not currently exist.

Again, where curricular alternatives are already implemented, placement is being updated to follow. For example, Great Falls College’s accelerated 090/095 combined course obviously requires different placement scores from those used for the courses individually. However, placement is still by single test/fixed cut score. In addition, Helena College has piloted “math camps” for placement preparation.

Narratives from math instructors and placement specialists suggest the desirability of exploring alternative placement practices but do not suggest a fundamentally broken system. For example, Rich Rehberger, chair of dev-math at Gallatin College, notes that they’re regularly validity-testing the MPLEX and updating its questions to fill gaps indicated by actual student results, so that GC and MSU are happy with that placement exam. At the same time, he indicates that they’d like to study a combination of assessments with a range of cut scores, rather than a single assessment/fixed score system. This response is representative of the feedback our committee received overall from dev-math specialists: no sense of a fire burning down the house, but a sense that it’s worth looking into alternative placement systems. Joyce Wallborn (Helena College) finds from her research review that adjusting placement on its own probably will not significantly change course outcomes; rather, changes are likely to come from curricular innovations that placement is also adjusted for.
**Writing**

Similar to developmental math, there are many means of placement and many routes through coursework across MUS institutions, varying by student body, institutional mission, and available resources. And, again, institutions overwhelming use a single-test/fixed cut-score placement system rather than a multiple-measure / variable score approach.

Writing placement raises the fundamental choice of direct assessment (actual writing sample, scored by humans or machine), indirect assessment (multiple choice grammar/conventions/vocabulary/reading comprehension exam, machine-scored), or personal assessment (as in guided self-placement or faculty-recommended placement). All three approaches are used across the MUS, and in fact most institutions use all three in some way. For example, an institution which places by SAT will use that exam’s blend of indirect and direct assessment, and follow up a developmental placement with initial personal assessment by the writing instructor.

MUS institutions all allow single-score direct or indirect placement (via COMPASS, ACT + Writing, SAT, MUSWA, etc) to be challenged and overridden by direct assessment (local placement exam) or personal assessment (instructor moves a student from one course to another after initial assessment of writing in the course). Because enrollment numbers in dev. writing are not high in absolute terms (891 students MUS-wide in 2010, or fewer than 100 students per institution), these practices for identifying and re-placing mis-placed students are seen by dev-writing instructors as adequate. Our review finds no evidence of consistent over-placement (placing students too high, resulting in failed gateway courses). And because dev-writing instructors system-wide are alert to the potential for under-placement, and do regularly take measures to ameliorate it, they report solid confidence that under-placement is not a widespread problem either.

A particular challenge of writing placement is that (unlike math) writing is not divisible to discreet, leveled skills creating a clear progression of ability. Rather, writing is a relatively indivisible, “holistic” activity in which all component skills need to be practiced and learned simultaneously in order to acquire any one of them well. As such, writing develops not by level but through time as a range of writing tasks requiring different configurations of component skills acrretes and receives feedback. One of the key factors in quality of writing instruction is the writer’s ability to see how their writing is received by readers (peers, instructors, other users of the texts they create). As a result of this nature of writing development (“all-at-once” over time, rather than skill-by-skill), accurate placement is notoriously difficult. The reality is that no placement system ever devised reliably predicts student success in the placed course. A review of research by Haswell (2004) in fact characterizes the predictive power of both indirect and direct writing assessments for placement as “painfully weak.” McKendy (1992) compared 13 studies correlating direct assessment scores with first-year composition grades; correlations ranged from random to .4. In Haswell’s (2004) words, “for decades college writing placements have been made on scores that leave unexplained, at best, two thirds of the variance in future course performance, and, on average, nine-tenths of it.” Matzen and Hoyt (2004) suggest that standardized tests mis-placed 62% of students compared with personal assessments of first-week in-course writings. Smith (1993) found 14% under-placement (placing into a lower course than necessary).

The same characteristics of writing that make accurate placement difficult to achieve, however, also make writing placement relatively low-stakes (compared with math placement). Writing courses are much more sensitive to non-content factors (so-called “non-cognitive skills”) such as student engagement, persistence, study habits, reading abilities, and general problem-solving abilities, than they are to matters purely writing-related. An understanding teacher and a dedicated student can make a writing course work even if the student is somewhat underprepared, whereas no placement decision will enable an unengaged student to succeed. When students fail in writing courses, the source of the failure is far more often poor work habits than lack of writing ability.
When developmental writing courses prove useful to students, therefore, it is usually because 1) lower course caps allow them better-than-usual feedback from the instructor, 2) the additional time in writing instruction provided by the course is instrumental, and/or 3) the course serves to build students’ confidence as it provides them a stable picture of their actual writing abilities in a college environment. (While curriculum is not the purview of this workgroup, we are aware that a number of institutions use not limited “basic-skills” dev-writing instruction but full-on “college-writing” curricula which closely resembles the curricula used in WRIT 101, and we applaud those choices.) Because of these advantages, according to Karen Henderson (Helena College) and others, students will often elect to remain in developmental courses even when some evidence suggests they could place into a gateway course. And it is likely because of such advantages that, for example, Gallatin College students who take developmental writing courses have a higher ensuing pass rate in WRIT 101 than their peers who did not take developmental courses—a finding that aligns with research correlating success in dev-writing with retention and graduation (Baker & Jolly 1999, White 1995).

Less flexible than writing placement is reading placement. Reading is the ability fundamental to all other developmental education, including dev-math. Reading comprehension of textbooks, assignment sheets, exam instructions, and student support materials is simply non-negotiable for college success. At some MUS institutions, no stand-alone developmental reading coursework is available. At some CCs (Helena, Miles, Flathead) a stand-alone developmental reading course has been created (in addition to the “college study skills” style classes that many campuses offer for credit to at-risk students). These courses do not appear to be a bottleneck for students; placement into them is conservative (tending toward over- rather than under-placement) and crucial to the success even of other developmental work.

The most common innovation in writing placement is guided (or directed) self-placement, which has been piloted in the MUS by UM-Western for two years and was discontinued because UM-Western’s open enrollment policy made the thoughtful nature of the self-placement time frame difficult to navigate. UM-Western also uses a “stretch” version of WRIT 101 that in wide deployment would shift placement practices. Miles City is experimenting with making two dev-writing courses concurrent rather than sequenced and as such has altered placement; they have not yet had enough students in the pilot program to judge its success. Similarly, Helena College and Great Falls College will both pilot a structured-learning-assistance WRIT 101s with concurrent “labs” (WRIT 096/098) for students scoring just below their E-Write cut scores for WRIT 101. As with dev-math, these curricular innovations will themselves create placement implications that will be more clear as the curricula are tested and normalized.

Recommendations for Placement Alternatives
We have found in the literature, and reached among ourselves, clear consensus on placement methods which are increasingly considered best-practices. Even though our research into placement in MUS has not demonstrated brokenness, we recommend the following practices and methods be explored, piloted, and adopted to the extent that they prove to optimize developmental placement. We recommend the following not as policy but as guiding principles only, the resulting implementations to be designed and instigated by MUS institutions in whatever ways best reflect their local needs, student bodies, institutional missions, available resources, and institutional and OCHE funding.

- **Shift from single-test / fixed-cut-score placement to multi-measure / variable-range cut-score in both math and writing.** The only people who appear to have any faith in the value of test-only placement are those who sell the tests. Multiple measures also create a “basket” of indicators that can eliminate the need for rigidity in any single measure, thus creating a variable range of cuts for each measure depending on other measures. The largest challenge
in creating such a system will be selecting measures and validating, through student experience, various combinations for placement.

- **Ensure that some of the new multiple measures relate to high school performance.** Particularly in the realm of writing, high-school gpa is the single best predictor of college performance. The literature is essentially unanimous (as are the members of this workgroup) in recommending much greater weight be put on high-school gpa and performance. The main difficulty seems to be timely access to high-school records.

- **Ensure that some of the new multiple measures increase sensitivity to and account for student background, experience, and context, particularly when a student falls in a gray range for placement.** A multi-measure system, while predicted to place students more accurately, will also predictably create more judgment calls for admissions counselors and advisors. In those moments, knowing a student’s current life circumstances or understanding elements of their educational background that may not show up on a transcript can be crucial to making the best placement judgment. Therefore, it is imperative that a multi-measure placement system include not only permission but encouragement for those involved in placement decisions to communicate with the student about relevant circumstances, as is already common in current placement practices.

- **As Montana shifts to ACT Aspire and Common Core-based learning assessments, develop placement ranges for the new resulting scores, while preserving emphasis on multi-measure placement.** Test developers will continue to attempt single-measure assessments that actually suffice for placement, most recently by “customizing” traditional one-size-fits-all products to specific states and learning outcomes. While obviously MUS will respond to whatever OPI directs secondary education to use statewide, we must ensure that our responses remain within a framework that places less weight on any single test score, no matter the test.

- **For Math placement, develop supplemental preparation systems for high-stakes placement tests.** Both the literature and input from dev-math specialists around the state suggest the great value of refresher coverage of math prior to placement testing. The most frequent suggestion is week-long “math camps” with placement testing at the end. The obvious benefit of such preparation is that students can demonstrate closer to their peak knowledge potential and thus gain the highest possible placement. Challenges that programs will likely have to address will be, simply, encouraging students to make the time before a semester (an extra week of daycare, extra week off from work) to make such a system work. Clearly, new funding sources will need to be procured to facilitate such preparation systems.

- **For Writing placement, adopt a multi-measure system in which test scores plus GPA help guide student self-placement.** Guided self-placement (GSP) works by increasing student self-efficacy, transferring power and responsibility from the institution to the student and helping increase their investment in their placed course. Results from self-placement systems already in place suggest that students place at or slightly more conservatively than an institution’s existing measures would place them. GSP would require significant investment from campuses and MUS in informing applicants about the system.

- **For Writing placement, the only true “multiple measure” of writing is a portfolio assessment, which MUS should explore using.** The reason that even direct writing assessments are notoriously unreliable and poor predictors of success in college writing is
because no single writing experience can create a sufficient description of a writer’s abilities. Only a collection of multiple texts written in different situations and for different purposes and audiences can truly give a sense of how one writes. Unfortunately, portfolios have in the past been difficult to assemble and validate authorship on, and expensive to assess. Nevertheless, we would do well to explore the possibility of placement portfolios, as advances in software make collection and validation much easier and assessment much more streamlined. Again, however, portfolio placement would present a significant new expense.

- **Support continued development of placement optimized to new curricular initiatives.** As, for example, concurrent/embedded courses, structured learning-assistance courses, and stretch writing courses become more widespread, new placement practices will need to be explored to keep up with the possibilities the new curricula make available.

- **Commit to funding assessment of placement practices system wide.** MUS needs to support continued exploration of “bold” placement systems by funding not just their development but assessment of them, system-wide. A practical question on funding will arise post-pilot: it’s likely that grant funds will be attainable to test these systems, but the real question will be about sustainable funding for those systems that prove their worth. For campuses to invest in pilots, they’ll need some assurance about funding sources in the long-term.

- **Facilitate better coordination between dev-ed programs, gateway programs, and college admissions offices.** Radical changes in placement, particularly those requiring increased complexity (as multi-measure systems will), will necessitate new levels of communication among stakeholders and principal facilitators in placement. MUS might issue guidelines to admissions offices to help coordinate this communication.

- **Facilitate better coordination between college admissions and high-school records-keepers.** Hopes for multi-measure assessment weighing high-school performance depend on access to such records which in the past has not always been easily obtained. Such systems cannot work without reliable feeding of high-school records to MUS admissions offices.

- **Facilitate and support an MUS wide standing dev ed clearinghouse or coordinating committee that maintains the communication on dev ed established by this Taskforce and its workgroups.** For obvious reasons, this opportunity to learn about each other’s dev-ed systems has been tremendously helpful, and ongoing support (financial and time) in coordinating communication among dev-ed programs would be a sound investment.

**Bibliography**


