
WORKING PAPER

INNOVATION IN DEVELOPMENTAL EDUCATION

The Landscape and the Locus of Change

W. Norton Grubb
Professor and David Gardner Chair in Higher Education
University of California, Berkeley

Elizabeth Boner, Kate Frankel, Lynette Parker, David Patterson
Graduate School of Education
University of California, Berkeley

Robert Gabriner, Laura Hope, Eva Schiorring, Bruce Smith, Richard Taylor,
Ian Walton, Smokey Wilson
Research and Planning Group of the California Community Colleges

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Abstract:

Community colleges are full of innovation in developmental education, and some of these have the promise of changing the “remedial pedagogy” that can be so ineffective. In this working paper we review six kinds of innovations: (1) the efforts of individual practitioners, which can be found in many colleges but which reach very few students; (2) the developments in limited numbers of departments that have come together, under particular conditions, to create their own alternative pedagogies; (3) learning communities and linked courses, unfortunately less common than we had hoped; (5) reforms following K-12 initiatives, specifically Reading Apprenticeship and the writing process methods of the National Writing Project; (6) the formation of Faculty Interest Groups to stimulate faculty discussions that might in turn lead to reforms.

There is, then, no dearth of good ideas about how to improve developmental education, though the scale and thoroughness of these innovations vary enormously. The conditions that nurture innovations are also critical to their success, and we uncovered one pattern — *innovation from the middle*, with the joint efforts of senior-level faculty and middle-level administrators — that seems necessary for widespread reform.

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THE LANDSCAPE AND THE LOCUS OF CHANGE**

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Based on case studies in 13 community colleges, the approach to developmental education we call remedial pedagogy is clearly dominant. Remedial pedagogy comes in many forms, of course, and – as we will see later in this chapter – skilled instructors can work within this form to present strong classes, where there are enough connections made to applications and external contexts to make instruction motivating. But in general, the emphasis on small sub-skills in part-to-whole instruction, the absence of much attention to the competencies that are not basic (like analytic and conceptual abilities, or “21st century skills”), the technique of drill and repetition, and the lack of any applications to the world outside the classroom lead to classes that are quite traditional, where only the most motivated students could stick through semester after semester of such teaching. The dominance of remedial pedagogy, given what we know about good teaching (summarized in Working Paper 2), suggests that inadequate instruction is at least partly responsible for poor progress in basic skills sequences.

But at the same time, community colleges are full of innovation in developmental education. Indeed, the problem for outsiders like us is often to make sense of the blizzard of innovation, to understand what is widespread from that which reaches only a trivial number of students, to distinguish potentially enduring innovations from ones that last only as long as the attention span of an instructor. Even the least innovative college has some individuals who are trying to do innovative work; often they band together into a group of anywhere from five to a dozen people who think of themselves as fellow travelers, and refer outsiders (like us) to each another. Very often a college will have three or four major innovations taking place; one college we visited was engaging in at least a dozen innovations. Sometimes, to be sure, the innovations seem to be purely symbolic: at one college nearly every administrator mentioned a learning community (LC) as evidence of experimentation but – quite apart from the fact that learning communities are by now well-known innovations – it turned out that the learning community was in its first year, was struggling with an enrollment of only 7 students, and that even if it reached its target of 25 students it would reach only a tiny fraction of students in the college. Unless this LC was intended to be the first of a large number – and its continuation was very much in doubt – it could not possibly affect more than a tiny handful of students.

And so the innovations in college are both numerous and varied, symbolic and substantive, large in scale as well as small. We will review in this chapter

several types of innovations (1) the efforts of individuals to develop their own approaches, often through trial and error, which remain individual and idiosyncratic because other instructors do not pick them up; (2) the existence of departments with a constellation of idiosyncratic innovations, but where there is no coherence to the department's efforts; (3) departments that have, always over time and usually with a succession of external grants to support their work, developed a coherent approach to developmental education that incorporates many faculty; (4) learning communities and linked courses, unfortunately less common than we hoped; (5) reforms following K-12 initiatives, represented here by Reading Apprenticeship and the methods of the National Writing Project; and (6) the formation of Faculty Interest Groups, or FIGs, to stimulate discussion that might lead to reforms. Even with this relatively long list, we do not cover all the innovations we learned about. There is, then, no dearth of good ideas about how developmental education might be improved, no lack of models and pilot programs and exemplars for aspiring innovators (and researchers) to observe, and no lack of faculty energy and enthusiasm to experiment.

But many of these innovations are idiosyncratic and are not replicated by others; others have taken more than a decade to develop, and cannot be readily imitated or implemented on a larger scale. The most familiar innovations — learning communities and linked courses, with some obvious advantages providing applications of basic skills — come and go, and seem less prevalent than they have been in the past. The most enduring and promising innovations

– departmental developments that create coherent alternatives to remedial pedagogy – emerge from a complex process that we will call *innovation from the middle*, where upper-level faculty and middle-level administrators combine forces to first develop and then promote an alternative approach. So the real question is not why there is so much innovation, but rather why so much of it does not spread and then become permanent or institutionalized. To answer this question, we will be more specific in the last section of this working paper about the *locus of innovation*, or the location within these colleges of where innovation starts and why it either endures or fizzles out.

Finally, we must admit that we have sought out innovations in the sense that they are departures from the remedial pedagogy described in Working Paper 2. This instructional approach violates so many of the precepts for effective instruction that we assume it must be relatively ineffective. But the innovations we describe here have not, for the most part, been carefully evaluated, so while they are more consistent with effective practices, we do not know directly whether they are more effective than standard practices.

There are, unfortunately, many barriers to evaluating these initiatives. Often innovations are in their first few years, and so instructors may not have fully developed their approach – in contrast to remedial pedagogy, which has been around seemingly forever, and which is codified in textbooks and computer programs that make the instructor’s job easier. Teaching materials are sometimes under construction, and everyone will admit that materials in the first few years

of development are “horrendous”, as one math instructor described the early activity packets her department developed. Sometimes innovative practices require coordination among a group of instructors, and – particularly in the early years of innovation – that coordination may still be imperfect. Often there is student resistance to innovation, or to unfamiliar teaching practices; this is particularly true of student-centered or constructivist practices that require more effort from students, and where it exists it must be considered in evaluation. So the quality of innovative instruction may be lacking, particularly in the first few years.ⁱ Furthermore, there are always dimensions of quality – the instructor’s relationships with students, the extent of caring and support, a teacher’s charisma and persona – that may be as important as instructional approaches. Finally, many (probably most) community colleges lack institutional research offices capable of carrying out sophisticated evaluations; they are often under pressure to produce required reports for institutional purposes; and fiscal pressures seem to be weakening these offices. So while these pedagogical alternatives may look infinitely better than remedial pedagogy (and they are certainly more interesting for researchers to sit through), we can’t be sure that they are more effective, either at the course level – the extent to which students learn more, or pass courses – or at the program level – the extent to which students are able to enroll in and pass subsequent courses up to and including earning credentials or transferring.

Indeed, with some important exceptions, there has been very little effort to evaluate these innovations.ⁱⁱ One problem is that many colleges in California lack adequate institutional research offices. Another is that comparing courses using remedial pedagogy with those with some alternative approach requires identifying the outcomes for *specific instructors*; institutional researchers have been extremely careful never to release any information that could be traced back to individuals, lest they find themselves in a firestorm of critique and reprisal. A third is that the data required to do sophisticated multivariate analysis of developmental education is usually missing since important variables – the depth of remedial needs, how well students did in high school, measures of family background – are usually missing. Until the information required to evaluate different approaches to developmental education improves, we will have to acknowledge that we know almost nothing about the effectiveness of these innovations.

Despite the lack of current evidence, there are still powerful reasons to examine what innovations emerge and how they emerge. The success rates in basic skills are so low that all alternatives need to be considered. Even if there are many other dimensions of developmental education that might account for success – like the contributions of student services examined in working paper 7, the alignment of courses in working paper 8, and individual characteristics of instructors (like charisma and liveliness) that remain unaffected by pedagogical approaches – the standard approaches are so often conventional and enervating

that we need to search for alternatives. And community colleges are excellent sites of experimentation since there is so much innovation to examine.

I. INDIVIDUAL AND IDIOSYNCRATIC INNOVATION

In virtually every community college we examined, there are a few individuals who are widely known (even outside their departments) and whose efforts are widely praised by others as being exemplars of good teaching. Here's a developmental English class taught by Ms. Tudor in the college we call South Metro Community College*, described by our observer as "the best instruction I have observed in over thirty years of observation":

The class of 39 students started with a pitch to the English Department's essay contest with the comment, "We're all amateurs, but here's a one chance to be a published writer" — placing students on the same level as the instructor ("all amateurs") and inviting students into the community of published authors. The instructor then asked a student volunteer to summarize a book, a department-wide reading cutting across classes; her comment was that "Coming to reading is part of the college culture. College is where you make lifelong friends, become part of the community. Don't just come to class and go home." She then prepared students for a composition due near the end of the class, emphasizing that it should be typed, go through an editing process, and follow MLA (Modern Language Association) format since "you will need to know this before you get into English 47" (the next course in the sequence); she was signaling a series of requirements *and* the expectation that they would continue in the sequence.

The focus of the class was on five sentence types (simple, compound, complex, etc.), but she encouraged students to explain the relationships of forms to one another, or clarify them in terms of intended meaning. When students had difficulty with a sentence she would ask meta-cognitive questions (What do you intend to say? What sentence would say that?) as a way of leading students to

* Both of these are pseudonyms. South Metro Southern is the college of Mr. Pasho, a caricature of remedial pedagogy described in Working Paper 2.

better choices — rather than drilling students on definitions and examples. The instructor then sent students to the board to review run-on and complex sentences, requiring students to verbalize their choices; this generated a lot of on-task chatter among students as they went through the process with their neighbor. Each time a new example from the textbook came up, a student was given time to develop a writing solution, and then praised for it. The process of verbalization itself required students to articulate their reasoning, and served as a diagnostic device as well.

Then the instructor broke the class into groups to work on 5 sentences reflecting different types, circulating to connect what they were doing to past performance in the class. Students also discriminated among inappropriate, satisfactory, and especially good uses of transition words and phrases — rather than simply identifying sentences as correct or incorrect. Finally, the instructor passed back drafts of a composition with an initial evaluation related to comments on the composition itself. “If you have a problem [with my corrections], go to a tutor in the lab; if you’re still confused come see me”, clarifying the multiple routes for added feedback.

In this class, while the subject was a familiar one from conventional writing courses, the instructor went through four or five different exercises to keep motivation high; she required both individual work at the board and group work where students explained their writing; she provide a great deal of ancillary encouragement (about the department’s journal, for example), about being a college student (“Don’t just come to class and go home”) and making progress in the department (in an institution where progress through basic skills courses seemed confusing, at least to a visitor). All in all, what could have been a conventional class was highly motivating, and all students engaged with material that might otherwise have been routine.

Ms. Tudor is well-known in the department for her teaching, and as her students have shown greater success in common exams, faculty have begun to

seek her advice and counsel. She claimed that “ there has been major,, major change in the department” and that the chair was committed to “building a solid basic skills program. It was not embraced with open arms in the beginning, but as more people joined in it became more of a departmental activity”. At the same time, another instructor mentioned, “there’s no consistency [in teaching] – things happen [only] with little pots of money”, and another noted that professional development “is not effective, but you get what you pay for – the activities are not centered on teaching”. Furthermore, there were no signs of departmental institutionalization, as we saw in other departments (in Section II). So, in an institution with a good deal of mediocre instruction, an outstanding individual has started to change practice through the force of her example, but it remains unclear how far this will go.

A somewhat similar example in ESL came in the college we call Barkham College. There ESL is dominated by vocabulary and grammar drills, but Ms. Biran has organized her class as a series of exercises, some of them explicitly didactic but most involving the kinds of speaking and listening skills that ESL students need:

The class begins with presentations by two students, quite poised, with PowerPoint slides about their home country and why they came to the U.S. Other students wrote on score sheets during the presentations, and asked questions and provided feedback on the presentations. She requested students to formulate five homework questions to ask classmates next time, responding to them as “too easy” or “too hard” if they seemed inappropriate for the level of the class. She commented about on-line postings for the class, and handed back a quiz, with conversation prompts for a new, experimental type of oral quiz. Then she gave directions for conversations that slipped in grammar comments

about tense and provide examples of correct pronunciation. Students proceeded to work in pairs with these conversation prompts, switching pairs from time to time while the instructor circulated and responded to individual questions. At the end of this conversation the instructor asked several students the meanings of colloquial expressions they had used in their talk.

About midway through the period, half the class went to a neighboring global studies class, while some global studies students entered this class. Again students chose partners and discussed a series of questions on global developments, providing a shift in topic as well as in classmates and their backgrounds. .

When the class reconvened, she asked about the following week's research presentations; encouraged students to attend lectures in English; and then switch to a didactic portion segment on two-part verbs (like "turn on") and the different ways they can be expressed. This was followed by a textbook exercise on four types of apology, followed by group practice where she called names for a request first and then another name for an "interesting" apology; the class worked together to correct language. The class ended with reminders of a forthcoming quiz and instructions for the next class.

In a 60-minute period the instructor provided some direct instruction, presided at a formal presentation, organized several different segments of conversational pairs, changed topics with the global studies class, and incorporated many informal comments on forthcoming work, correct pronunciation and usage, and other opportunities to practice English. As the instructor explained, "for language learning it's speaking a language in relationship with somebody, their responsibility when they get into groups". The variety of language use was quite broad, and included both oral language and writing (on quizzes and forthcoming papers). The interest level in the room was consistently high, without the distracted behavior — text messaging, checking of cell-phones and e-mail,

wandering in and out of class — that occurs in so many classes following remedial pedagogy.

In Parson College, an innovative philosophy instructor illustrated what it might be like to have a wholly individualized approach to remediation — instead of the “batch processing” that we currently see, with groups of 15 to 40 students going through precisely the same course whether they need it or not. There, the faculty has developed a series of “essential skills” courses; the instructor, Ms. Acuity,* saw the need to teach the course because students were so poorly prepared for critical thinking, collaborative learning, and presentation. She focused her essential skills class on critical thinking, writing skills, learning and study skills, and reading for philosophy. She used a reading response journal — a diagnostic device — to determine where students have problems and then tailored her approach to what she sees in individual students’ journal. She also uses a tutor assigned to her section to lead student-focused discussions, much like the Supplemental Instruction we will describe in Working Paper 7. So there were certainly collaborative and collective dimensions to her class, but in terms of improving student writing the writing response journals give her access to individual issues — including individual errorsⁱⁱⁱ — rather than covering errors as if they were generic. In such a class we can catch a glimmer of what it might look like to individualize basic skills instruction.

* A pseudonym again.

Furthermore, in examining individual instructors who depart from remedial pedagogy, it is clear that the departments in which they work play very little role in their innovations.^{iv} In the college we call Choctaw, the ESL department has taken a relentless grammar-based approach to English-language learning, leading students through a series of grammar rules, vocabulary drills, and other elements of a part-to-whole approach to speaking and writing. But one instructor within the department – a part-timer, someone who (like most part-timers) admitted she didn't have the time to attend many department functions – took precisely the opposite approach: she had her students read an entire novel, and used the novel to teach grammar, a whole-to-part approach that has the advantage of providing a context for grammar, punctuation, and the other nitty-gritty mechanics of English. But there was no sign that other members of the department learned from her example.

Furthermore, we uncovered a math department in which there were four distinct and independent approaches to math teaching. At Chasm College, a divide existed between traditional, textbook- and lecture-centered approach to math instruction, and what proponents called more “student-centered and technology-based lab approach”, where students took a lab-based course instead of a lecture-based course. (However, both followed the precepts of remedial pedagogy since so many computer-based programs – while allowing students to proceed at their own pace – still require drill on sub-skills.) In addition, three members of the department taught “applied math”, which used a great number

of examples – some of them drawn from CTE courses taught on the campus – to provide some context. The applied math course we observed also made much greater use of student demonstrations and inquiry about math, rather than information transfer. Finally, one part-time instructor taught a course on the mathematics of water management, which incorporated the mathematical procedures required in this occupational area – the importance of units, unit dimension analysis, calculation of horsepower and kilowatt hours, the geometry of spherical water storage containers – using examples from the occupation. So one department has four different approaches to teaching basic mathematics, but – aside from the three applied math instructors, who conceived of this approach together and shared some examples – there appeared to be no communication among instructors using different approaches, and no mechanisms of alerting students to the differences in teaching approaches in case they favor one over another.

We saw many other departures from remedial pedagogy, particularly in efforts to provide a few examples of applications, or efforts to have students verbalize their thinking in math or writing classes as a way of diagnosing their thinking. In still other cases, we observed classes that followed the patterns of remedial pedagogy, but where instructors were so clear and organized, presented the material to be mastered in a logical sequence, and engineered the pacing of the class so that students were engaged throughout. Such classes are as uncommon as departures from remedial pedagogy; they illustrate the point we

made in Working Paper 2, Figure 1, in identifying a point like A with high-quality behaviorist instruction from a point like E with mediocre hybrid instruction. But our conclusion about all these examples of strong teaching is that they are idiosyncratic: instructors have developed their own approaches, often through trial and error,^v rather than being influenced by members of their department, or by professional development (which is relatively weak, as we will argue in Working Paper 6), or by professional reading and examples provided by disciplinary groups. As one of the Applied Math instructors at Chasm College noted about his own practice, and specifically about his efforts to develop “stories” to go with simple algebraic expressions,

I’ve been trying one thing and another throughout my whole career. . . I guess I’m gradually getting better. But I’m obviously nowhere near where I want to be.

So it’s impossible to rely on this kind of idiosyncratic innovation as a way of improving instruction in basic skills: it is too individual, too isolated from the practice of other instructors, and too limited in scope to influence instruction for more than a small number of individuals. To see innovation with a greater chance of enhancing teaching for larger numbers of students, we need to examine more collective approaches to pedagogical innovation.

II. INNOVATING DEPARTMENTS

In a small number of cases, departments have developed their own particular approach to teaching a developmental subject. The advantage over idiosyncratic innovations is that – while not all members of a department may buy into the innovation – it still influences the teaching of many more instructors than one or two. Furthermore, when a department develops its own pedagogical approach, it can institutionalize that approach through the selection of new generations of sympathetic instructors, through professional development designed to pass on that approach, and often through curriculum materials that embody the approach better than available textbooks do. We uncovered three or four examples of such departments, in 14 colleges,^{vi} and we profile three of them because similarities in their histories clarify some necessary elements for widespread innovation.

The English Department at Choctaw College: The reform story at Choctaw College began in the late 1990s, when the college received feedback from the University of California at Berkeley that its students were not prepared to write effectively in upper-division courses. At the same time, there was dissatisfaction within the department because there were

multiple pathways to English 1A. . . but it felt really inconsistent, and it felt like there was a lot of churning happening from teachers and students: students weren't making it *here*, so they would go over *there* [to another course]. So we got together and had a two-year-long discussion that started with values: what do we want to see happen? What do we call learning?

Simultaneously, innovations were fueled by collaboration with another college with a federal FIPSE (Fund for the Improvement of Postsecondary Education) grant focusing on reading and writing instruction, and by the opportunity to hire a number of new faculty during the 1990s. One faculty member in particular, who received his doctorate from the University of California system, is widely cited as a strong instructional leader, providing articles and intellectual stimulation, promoting instructional improvement through an evaluation process, and informally mentoring faculty who subsequently played leadership roles.

The department was helped in its deliberations by a series of activities and practices – less formal than in other colleges profiled in this section, but still helpful in developing collaborative norms. One was the availability of grant funding, first from a federal Title III grant and then from foundation funding from a project forming Faculty Inquiry Groups or FIGs*; these provided release time to develop new teaching approaches and materials, and to go on retreats to develop their approaches. One result of this was the development of course outlines, periodically revised, that provided guidance to the instructors who bought into the department’s philosophy. Another was the invitation of outside experts to provide support through workshops, which served as a form of intellectual development for the entire department. Another was the practice of a “college hour”, an effort by the college to set aside time for full-time faculty to

* FIGs are examined in somewhat great detail toward the end of this working paper.

collaborate over common issues; while it was principally an effort to support shared governance, it served as a mechanism of collaboration for the English department. Finally, for a period of time a coordinator position was funded, someone responsible for organizing professional development and mentoring for the entire department. Subsequently, the “college hour” and the coordinating position were lost due to finding cuts, and many members of the department lamented the loss of collaboration and community that these helped foster.

However, the departmental efforts did not depend particularly on the college’s administration. One dean was perceived as being supportive, and would alert members of the department to sources of political resistance; another dean was remembered as supportive only in the sense that she did not interfere with the department. In general, however, instructors felt that middle and upper management at Choctaw was “not strong”, and they did not look to deans for guidance, support, or leadership.

The result of all these internal discussions was the development of a particular approach to teaching reading and writing, embedded in a set of “Articulated Assumptions” and then an “English Division Throughline” that describes what all English courses in the college should do. One of the first assumptions is that “the hierarchical model of English where skills progress from words to sentences to paragraphs to essay structure is not favored in this division” – a blunt repudiation of remedial pedagogy. As one long-time member of the department clarified,

The discrete skill style of teaching English was not effective because students couldn't transfer those skills. . . It's what I call a workbook mentality – they would master the workbook, but that's not what happens in a college classroom. . . So we thought it was better to model, early on, the real tasks, the authentic tasks.

Instead, the department stresses the integration of reading and writing at all levels; the reading of full-length texts rather than short excerpts or passages, and using non-fiction sources (which student are more likely to read in subsequent college-level courses) rather than fiction; critical thinking (rather than basic sub-skills) at all levels of instruction; the assumption that students bring knowledge to learning on which they can build, a fundamental tenet of constructivism; an explicit emphasis on collaboration among students, and between students and instructors; a focus on analytic writing rather than personal reflection, again in anticipation of what college-level work requires; a clear acknowledgement that basic skills students often need to improve their “studenting skills”, or the study skills and habits of mind often taught separately in Student Success courses. Our observations of classes at Choctaw confirmed that instructors by and large follow these ideas in their classroom practices, so their classes avoid most of the pitfalls we have noted with remedial pedagogy.

Despite the recent decline in practices supporting collegiality, the department has been able to continue its beliefs through faculty hiring and professional development. The “throughline” philosophy has been a driver in the hiring process, as the department has actively sought candidates who already practiced according to these core values; it looks for individuals who are

“curious, stable, interested in the work of the department, with a belief in student capacity”. In addition, the process of reviewing faculty for tenure, over a four-year period, is a form of professional development, and faculty leaders mentor untenured instructors through the process. Formerly, adjunct instructors also received structured mentoring, though this has recently been eliminated because of the lack of funding. The faculty also stated that adjuncts who do not support the departmental philosophy are not rehired, so all parts of the hiring process are devoted to maintaining the central philosophy.

This particular department has also championed accelerated basic skills, where students take more intensive developmental courses over a shorter period of time. (The idea underlying acceleration is that it reduces the number of breaks between courses, where students may fail to enroll in a subsequent course, and it shortens the period of time required for basic skills.) In general, acceleration is not an antidote to remedial pedagogy, since it requires a change in structure but not necessarily a change in teaching approach – it may just mean twice as much drill and repetition in a given period of time, twice as deadly as conventional classes. But where a department has already shifted to a more student-centered and constructivist pedagogy, then acceleration may make more sense – the two reforms may be complementary to one another. For our purposes, the emergence of acceleration at Choctaw is evidence that the English department continues to develop innovations, even as it bemoans losses in funding, in release time for

mentoring and retreats, and a certain stagnation in the cooperative elements of the department.

The Mathematics Department at Median Community College: As we clarified in Working Paper 2, the use of remedial pedagogy, drill and practice, and mastery of computational algorithms without conceptual understanding is particularly prominent in math teaching. We had to seek out a department where something else was taking place in more than idiosyncratic ways (as it was at Chasm College), and via the grapevine we found our way to Median Community College. There – as at Choctaw – developments started in the 1990s, with an internal “math war”. One group of faculty, discouraged by low progression rates into college-level math, visited Harvard College and its efforts to reshape calculus, and came back with reform-oriented visions of what basic math could be. But the “traditionalists” who didn’t visit Harvard battled with the “reformers”, with ugly results including formal challenges and lawsuits, until most of the traditionalists went off to teach at a neighboring campus. Another development was the requirement of Student Learning Outcomes (SLOs) by the accrediting association, starting in 2002; unlike many departments around the state, which treated these as compliance requirements only, the Median faculty tried to develop some genuine outcomes. These were similar to those in *Beyond Crossroads* (2006), a publication of the American Mathematics Association of the Two-Year College (AMATYC) with a reform orientation. But as there were no curriculum materials or textbooks available, the department started to develop

“activity packets” as its own version of texts. The early version are described as “horrible”, with inappropriate problems and a lack of flow, but the department has persistently worked to improve them over time.

A series of funding opportunities, one after the other, helped sustain these reforms. A 1998 task force of the college’s Academic Senate produced a report on developmental education; this in turn led to a Title III grant in the late 1990s, supporting the rewriting of curricula and the development of partnerships with counselors. When this ended in 2004, another grant to develop FIGs came along for another three years; then two college funding sources materialized, a line item for basic English and math courses and then funding from the state’s Basic Skills Initiative. By this time members of the math faculty had moved into institutional positions of power, so they were well-placed to participate in college-wide discussions about priorities, the role of basic skills, and funding allocations. The process of innovative faculty becoming more visible on campus, and even statewide, has taken place at a few other colleges, and is another dimension of “innovation from the middle”.

Leadership for these efforts came from one well-known and widely respected faculty member, bolstered by other new hires who supported the “reformist” effort. In addition, the administration was accommodating – the math department received institutional funds for basic skills, as well as college-controlled funding from the Basic Skills Initiative – but the faculty leaders describe the administration as providing “hands-off support” – they do not

interfere, they provide some resources, but the vision, the hard work of curriculum development, and any efforts to further the agenda of the “reformers” has come exclusively from faculty. We will discuss the problems inherent in having so little administrative support in the conclusion of this working paper.

From this has emerged a series of beliefs and practices that constitute a distinct alternative to remedial pedagogy. The instruction and activity packets are based on recognizably real-world problems, from which the standard skills – solving simple equations, understanding linear and non-linear functions – are derived, in the form of whole-to-part teaching. There’s a great deal of group work in classes, the idea being that students will help each other move toward solutions – in place of the usual teacher-centered approach where instructors present students with solutions. Instructors consistently ask students to verbalize their approaches to problems, and to present their solutions at the whiteboard, partly an effort to get them to be precise about what they have learned and partly a diagnostic of how they think about these math problems. In a number of ways instructors include elements of Student Success into these courses, recognizing that many student are math-phobic and that their resistance to math needs to be overcome before they can succeed. (This is explicit in the case of an accelerated math course, where students enroll in a support course that is almost entirely concerned with successful “studenting”^{vii}; it also takes place in other math courses themselves when instructors devote small amounts of time to such topics

as the “cycle of forgetting” particular to math.) Finally, the instructors use a computer program called TinkerTools, a simple data analysis program, to investigate a couple of simple data sets (one on breakfast cereals, one on high school test scores in the region, for example) so that students are carrying out real data analysis, but they do not use computer-based programs for drill and practice.

To further its practices, the department has activity packets, which are periodically upgraded; a practice of “teaching committees”, where all instructors teaching a specific course get together to discuss how best to teach it and to modify activity packets; common mastery quizzes^{viii} and exams for each course; and the use of flex-days, usually a weak form of professional development, for department instructional purposes (e.g., developing a scoring rubric for one of the mastery quizzes).

There’s no question, then, that the department has developed an approach that is internally coherent and clearly different from the remedial pedagogy of the “traditionalists”. With all this innovation, classes are clearly more engaging than they are in most colleges – and they are places where using math with realistic problems is taking place, not just drill on sub-skills . But how this translates into enhanced learning and progress through basic courses is less clear, because the behavior of students – always partners in any learning activity – still displayed some of the inattention that we saw in conventional math classes. Students were easily distracted from the material, by texting, cell-phones, and

side conversations; some students didn't participate much at all, despite the efforts to structure group work, presentations, and other exercises here students have to participate; some appear sullen and withdrawn, isolated within the classroom, as if they were too depressed or unmotivated to participate; some students did not work out problems on their own, but relied on others in their groups to give them the answer;^{ix} some work groups got off task, with chatting about personal issues displacing problem-solving, and some students didn't participate in groups; some students appeared to have short retention periods. (One instructor complained in class that they had been working on linear equations, the simplest form of elementary algebra, for three weeks but that some students still hadn't learned it.) These are all, of course, student behaviors that show up in conventional classes dominated by remedial pedagogy, but our point is that they can appear in classes with very different approaches to instruction. And, to the credit of the Median math department, instructors have recognized the need for motivating students, and are trying to be more student- and activity-focused as well as incorporating dimensions of Student Success. But since learning is a partnership between instructor and student, the outcomes of even the best-taught classes depend on the participation of students.^x

The ESL Department at Sidwell Community College: ESL instruction at Sidwell community College seems to be bifurcated. The innovative program is

called Mastering English for Academic Goals, or MEAG,* which we describe in this section; but the “old” or traditional program teaching skills in isolation is still available. Faculty who want to teach in the “old” style can still do so – though how students know whether they are opting for “traditional” vs. MEAG courses is unclear to us, though many of the “old”-style instructors teach at a satellite campus.

Like the other departmental innovations, MEAG developed over a long period of time. It began about a decade ago when the department looked at their program and admitted their students were not succeeding. The faculty realized they needed a fourth level of ESL, but also realized that “more of the same [ineffective practice] would be inappropriate.” After four years of failing to come to any resolution, one of the faculty members decided to experiment, in evening courses that would not affect most of the faculty. She also investigated other programs, and made contact with a faculty member from a college in Hawaii. A visit to that college seems to have convinced other faculty to move in the direction of a content-based and integrated curriculum; several faculty members began to write curriculum units based on the Hawaiian college, but tweaked in various ways. The dean of the department helped by putting proponents of the content-based approach on the hiring committee, and by providing a grant from Basic Skills Initiative funds (later discontinued when funding was cut). The initial leader also recognized the centrality of adjunct faculty in ESL instruction,

* Another pseudonym.

and developed an adjunct program to train them in the integrated approach. (Like the Adjunct Program at Chasm College, this has had the added advantage of supporting adjunct faculty and integrating them into the department – in contrast to other colleges where adjuncts are on their own.) Thus MEAG developed a supportive hiring procedure, cooperation from adjuncts, curriculum materials, and the support of the dean. Despite these developments, everyone still spoke of MEAG as a work in progress; as the dean of the department commented, “If this was a Michelangelo sculpture, we finally have the marble we want, and we finally are beginning to hit away at it with some kind of an idea, but we have a design in mind.”

In the first place the design of MEAG emphasizes that ESL must be for academic purposes, not the personal or social goals that are usually covered in adult ESL or non-credit ESL. A key feature is that skills (like grammar, punctuation, pronunciation, vocabulary) are taught in context, not as stand-alone skills; as one member of the department said,

If students need to read something or listen to something, and they need to know a grammar point in order to comprehend that, they teach the grammar then. They teach grammar when they need it to manipulate the material.

As another clarified the necessity of teaching in context, “Students in basic skills can know grammar rules, but if they can’t use them in a random text or produce it in different environments, then it’s not very useful.” She then went on to make a point about Student Success: “And if they don’t know how to be good students,

then they can't go on and [earn] twelve units. The ESL program therefore integrates content, linguistics, and academic skills knowledge – well rounded”, including study skills and dimensions of Student Success, just as the math teaching at Median College does.

The faculty no longer uses conventional ESL textbooks; instead they use authentic texts – the texts students might encounter in college-level classes: “With activities and scaffolding, they could do it”, said one instructor about reading parts of Jared Diamond’s *Collapse*; “they could talk about academic topics in intelligent ways.” They used newspapers not only for reading and writing exercises but to learn about such topics as plate tectonics, global warming, and other hot issues: “students came back reporting that for the first time they could read the news. This motivates students, who are not just confined to certain topics” covered in textbooks. Another component is a commitment to covering social justice issues, particularly those relevant to the lives of immigrant students like immigration, maquiladores, and employment. Each semester ESL courses adopt a theme, which generates some of the readings used in all courses; the department also has common mid-term and final exams, to bring coherence to courses. Students complete a portfolio, a more independent form of learning than simply reading and writing from prompts and books.

Not surprisingly, there has been some resistance, both from faculty wedded to traditional skills-oriented approaches^{xi} and from students brought up in standard language courses: “we’re not learning enough grammar, we’re not

learning enough rules. Why are we talking about monkeys instead of how to conjugate verbs?" The MEAP approach does contain some explicit teaching of skills, partly in response to this resistance, but again academic content is presented first, with "grammar and rules" proceeding from reading. Even though most of the department has allied itself with the methods of MEAP, there continue to be conflicts one might describe as "the ESL wars", just as there have been "math wars" and "English wars" in teaching for non-immigrant students. So, perhaps for the better, the development of a departmental philosophy of ESL instruction has not resulted in a monolithic approach to pedagogy; even in the most unified and innovative department there are still instructors who continue to teach in "traditional" ways following remedial pedagogy, and both faculty and students can have some choice.

Consistency Across Departmental Innovations: In these three departments – and in other cases where there have been some more partial development of clear alternatives to remedial pedagogy – a number of commonalities emerge.

First, these three departments all began their innovations when they realized that students were not benefiting from traditional programs. They then spent considerable amounts of time – at least a decade, by the time we visited them in Spring 2011 – coming up with alternatives, devising curriculum materials, and otherwise working out the details of what innovation might look like. Fortuitously, all three departments were able to keep working at

improvements over this period – rather than being forced to stop their developments because of some change in focus or administration; in several cases this happened as a result of grants supporting release time, the participation of adjuncts, the creation of curriculum materials, and the development of professional development (especially for adjuncts). All of these departments have codified or institutionalized their approaches in various ways: by gaining control over hiring procedures, by developing curriculum materials to guide new instructors, or by forms of professional development (again including adjuncts).

Second, the innovations they have developed share some similarities too. They all repudiate remedial pedagogy, quite pointedly in the cases of the Choctaw English department and the Sidwell ESL department. They embody whole-to-part instruction in place of part-to-whole methods, teaching sub-skills in the context of larger tasks. They try to use “authentic” materials that students will see in subsequent classes (or in life outside the college), instead of contrived textbooks. They rely much more on student participation, both as a way of getting students to verbalize their reasoning and as a diagnostic device; in this and other ways they are more student-centered rather than lecture- and instructor-centered. By and large, students are more attentive in these classes, with less off-task behavior (texting, chatting) and less tardiness and leaving the class, and they are certainly more engaging to watch for outside observers.

Third, the process of developing these departmental reforms has been one that we describe as “leading from the middle”.^{xiii} In all these cases faculty leaders – relatively senior faculty, with experience in a college and the trust of their colleagues – were crucial in both developing the innovation and persuading their colleagues to adopt it. In some cases (Choctaw is the most obvious) the faculty thought very little of the administration, but in fact middle-level administrators – usually department deans and program directors, but not upper-level management like vice-presidents or presidents – provided support both indirectly, in allowing innovations to be developed (usually described as “keeping their hands off”) and directly in the form of grants and some control over hiring. So the locus of innovation is not the solo practitioner at the bottom of the hierarchy, who can at best develop idiosyncratic innovation described in the prior section; nor does it come from the managers at the top, but rather from those closer to the middle of the college hierarchy.

Oddly enough, while those near the middle may be the crucial agents for programmatic and pedagogical change, this level receives little or no training or on-going professional development for their roles. We therefore suspect that one reason there is so little *systematic* innovation in basic skills instruction, or in instruction more generally, is that institutional and the individual conditions and incentives need to be just right for innovation from the middle to occur. As one faculty leader noted, reforming departments required both an instructional vision as well as organizational, political, and personal skills – and “how often

do these skill sets come together?"^{xiii} We will continue to test this particular hypothesis with other innovations described in this working paper, but for the moment it helps explain why some departments have created relatively unified innovative approaches while others persist with varying and idiosyncratic approaches to basic skills instruction.

III. LEARNING COMMUNITIES AND LINKED COURSES

By now, learning communities (LCs) and linked courses are quite familiar forms of innovation, even though it remains unclear how widespread they are in community colleges. Learning communities – where students take two, three, or even four courses at the same time, ideally with content integrated across courses – have been widely described, positively evaluated, and generally appreciated for their role in interdisciplinary work and, for basic skills, their ability to teach basic skills in the context of other courses.^{xiv} Linked courses have much the same advantages on a smaller scale, where one course is integrated with or linked to curriculum material from other subjects. In California, Wisely (2010) has compared outcomes for students in basic math courses linked to CTE with students in conventional, decontextualized basic skills courses in the same institution, and found that rates of passing these and subsequent math courses are significantly higher. These innovations are excellent ways of correcting the tendency of remedial pedagogy to teach skills out of context.

Learning communities also provide an obvious way for colleges to create a freshman learning experience, where first-year students take whatever basic skills courses they need along with a Student Success course and perhaps another introductory course. One such Freshman Academy we observed, for example, emerged from an experiment where one English faculty member first created a small learning community where students took her reading and writing courses together – reflecting the philosophy we saw in the Choctaw English department that reading and writing should not be separated. Then this small learning community was expanded to include courses in developmental math, reading, and writing with an applied psychology class – really a career planning class – together with a counselor assigned to the Academy. In addition, students were required to spend a certain amount of time in the colleges’ Supplemental Instruction program, one that is driven by the philosophy of “ask, don’t tell”, or the “Socratic method” of asking students a series of questions, guiding the student to develop their own solution rather than simply providing the answer as is often the case in tutor-student interactions. (We profile this Supplemental Instruction Program in Working Paper 7, on student services.) In addition, the designers of this learning community believe that one reason basic skills students are not usually successful is that they are “strangers in academia” (Shaughnessey, 1979), unable to figure out the system of catalogues and schedules and course sequences, lacking the language and behavior of

formal schooling. The counselor and the applied psychology course provide ways of introducing them to academia, much as Student Success courses do.

This particular Learning Community places a special emphasis on the role of the counselor. As the dean responsible for basic skills described the learning community,

What you try to do is establish a cohort of students who are struggling with the same issues, and kind of a bonding experience with the counselor who knows that this person is there and checking in on them. . . Somebody's watching and somebody's noticing what is working and what is not working for the student – they're looking at all the basic skills from their area of how they fit together. . . Then you have the Applied Psych, the career planning class to help them decide, well now, with these kinds of skills and my interests where am I going to go? So that's to tie them in as they develop academic plans for themselves so that [college] life goes beyond the Freshman Academy.

So the Academy has helped resolve, through the counselor and the career planning course, the problem of basic skills students who seem to have no understanding of how developmental courses fit into their future options. More generally students have several sources of support – from one another, from a stable set of instructors, from the counselor, and from the Supplemental Instruction Program. Universally, the Freshman Academy program is viewed on campus as being particularly supportive and effective – though there has been no formal evaluation.

The developmental classes we observed followed very different pedagogies. One writing class was relatively conventional and teacher-dominated following remedial pedagogy, with a Jeopardy-like game of

answering questions that ranged from the trivial (how many siblings did the teacher have) to the useless (“how many verbs are there in the English Language”); there were no opportunities to practice any form of literacy in the class. A reading class, however, involved a kind of hybrid instruction, with students discussing quotations they had chosen from reading passages they had brought to class, followed by a vocabulary review, followed by a group activity in which randomly-formed groups shared what they learned about the author of a short article called “Cruising Through Alaska”. The math class seemed quite conventional: “it’s basically a seventh-grade math class” plus linear equations from 8th grade – and the instructor assumed that it was the students’ responsibility to come to class well-prepared, rather than assuming (as the reading and writing teachers did) that such preparation was partly the instructor’s responsibility. None of the classes referred to material from any of the other classes, though the reading and writing teachers said that they sometimes collaborate in order to create more consistency between their classes. The variety of teaching approaches illustrates one potential pitfall of a learning community: unless the faculty have enough planning time and the inclination to modify their pedagogical approaches, the teaching is likely to be a hodge-podge of individual and idiosyncratic teaching methods, and the Learning Community relies solely on its structure of concurrent courses to build a community out of students, not to change instruction.

Indeed, in interviews with instructors, the lack of time — of paid release time, reduced teaching loads, or any other way to engage in planning — was a major source of difficulties in this learning community. But there were other problems as well. The Freshman Academy was very much part of the college's provision for basic skills. But the college had decided not to retain a coordinator for developmental education, and so one of the administrative champions of the program was lost. The Academy draws both on Instruction and Student Services, but "the two halves of the house" do not work well together in this college, and so the Academy and basic skills "get lost in the shuffle given the budget things [budget cutbacks]". So while the Academy is widely admired, its future is not assured in the way one might hope.

However, this Freshman Academy proved to be the only Learning Community we could observe. In another college, a widely-touted LC was struggling to get enough enrollment; in yet others successful LCs had been discontinued because of expense; in other cases we heard about plans for LCs that had not yet started. Our hunch is that, despite the enormous publicity around Learning Communities, there are relatively few of them in California and in many other states lacking some centralized source of support.^{xv} Certainly it is true that in the vast majority of colleges that have learning communities, there are only one or two — rather than relying on learning communities for a substantial part of developmental education.^{xvi} The same complaints arise all the time about LCs: they are too expensive; they require much more planning time,

and are therefore more difficult to teach than conventional stand-alone courses; students are unfamiliar with LCs and unwilling to take chances on what look like experiments; it is difficult to schedule students into LCs given the chaotic work and family lives of many students; counselors are hostile to LCs and won't refer students to them. LCs may have benefits in terms of the learning and progress of students, but it is difficult to compare these benefits to the many types of costs associated with them – benefit-cost analysis is not a very useful framework for evaluating LCs. Note that many of these objections simply reaffirm how unconventional LCs are, within standardized educational institutions where the course (rather than the program) is the basic unit of instruction. So we suspect – though we cannot prove it – that LCs in practice are dwindling in numbers, undermined by fiscal problems as well as the ability to sustain innovative structures in many community colleges.

Many of the same issues arise in linked courses. Like learning communities, linked courses can provide a context for learning basic skills that overcomes the decontextualized teaching in remedial pedagogy. The one linked course we observed, one in the mathematics of water management, was an exemplar of contextualized learning, using the specific kinds of mathematics required in different water-related occupations to illustrate simple arithmetic, proportions and ratios, and volumetric calculations. But this was an idiosyncratic development connected to the interest of one particular instructor, rather than an innovation whose central idea had been picked up by other instructors.

When Wisely (2011) confirmed the value of developmental math courses contextualized with CTE, the bad news was how few such courses he could find: in 35 colleges responding,^{xvii} approximately one third of the 107 colleges in the state, only 10 reported having any contextualized courses. He was able to confirm only 11 such courses in these 10 institutions, indicating that by and large only one linked course existed in each college – therefore reaching trivial numbers of students. Furthermore, these 35 colleges reported *no* learning communities whatsoever! Such figures only confirm our hunch that these innovations have become comparatively rare.

Learning communities that incorporate basic skills and/or Student Success courses have great potential for reshaping developmental education in fundamental ways. They are not, of course, a magic bullet, since that may simply combine courses with conventional teaching. Furthermore, evaluations have been mixed, and institutional conditions have not been favorable to learning communities. Until college become convinced of their value, we fear that they will continue to be less common than they should be.

IV. BORROWING FROM K-12 INNOVATIONS

Reading apprenticeship fragment revised:

IV. BORROWING FROM K-12 INNOVATIONS

Community colleges don't like to compare themselves with K-12 institutions; they are part of higher education, not K-12. However, the idea of looking for innovative ideas across levels of education makes a certain amount of sense; one possibility is that some reforms that have been developed and tested for K-12 education might also work in community colleges, though they might have to be extensively modified for postsecondary students. The advantage is that development, implementation, and evaluation have already been carried out for such programs, so that colleges could implement them without the long period of time – up to a decade, according to the testimony of departments presented in the previous section – required to develop innovative approaches and curriculum materials. We therefore decided to examine innovations in two areas where community college in California have used programs initially devised for K-12 education: Reading Apprenticeship (RA), an adolescent literacy program originally developed to improve reading sophistication among middle- and high-school students; and the National Writing Project, an approach to the teaching of writing, and most of whose projects serve K-12 educators. Unfortunately, given the conventional math instruction in community colleges, we found no indication that math departments or instructors are engaging with the extensive K-12 experimentation following various versions of the NCTM (National Council of Teachers of Mathematics) *Standards*.

Both Reading Apprenticeship and the National Writing Project have some real promise for moving instruction away from remedial pedagogy and toward

more thoughtful approaches to reading and writing. However, the ways that community college instructors use these innovations is itself revealing of how teaching in developmental education progresses: they illustrate how impossible it is to envision simply taking instructional innovations “off the shelf”, or borrowing directly from K-12 practices, without modifications.

Reading Apprenticeship

Reading Apprenticeship has developed during the past decade, ever since its ideas were first set forth in *Reading for Understanding* (Schoenbach et al., 1999). Reading Apprenticeship was originally developed to address the reading struggles of many middle- and high school students — particularly since teachers typically stop overtly teaching reading after third grade, when they assume (incorrectly) that all students have “learned to read” and can now “read to learn”. It has since developed a set of professional development activities, ranging from two-hour workshops during Flex days to the five-day Leadership Institute for Reading Apprenticeship (LIRA) to two-day workshops to follow up after LIRA training, all of which instructors can attend to learn RA methods and techniques. These trainings are open to all teachers, and while RA hopes to influence social science, math, and science instructors — indeed, any subject where reading is involved, potentially including occupational education — the majority of instructors who have attended RA trainings are middle- and high school English teachers. But the developer of RA received a grant to spread the

practice to community colleges; other community college instructors have found their way to RA; and currently one college in California serves as a center to spread RA by giving workshops around the state, and has developed a substantial portfolio of training materials grounded in the community college classroom.

To see developments in RA, a team of four researchers visited five colleges with concentrations of instructors using RA. There, following our overall strategy, we interviewed administrators and instructors, and observed classes that incorporated RA tools and strategies. We also developed a State of Incorporation Scale to measure, for each college and subject area, the extent to which instructors were using RA tools and strategies since we expected the extent of incorporation or implementation to vary – and our expectations were indeed confirmed.^{xviii}

The heart of RA is a set of meta-cognitive conversations about how we read, why we read, what the author intends, and how different readers interpret a text.^{xix} This generates a series of questions about what is known and what is unknown, about ways of knowing (and how they vary from subject to subject), about conjectures and uncertainty; specific questions include not only conventional ones like the author’s main point, but also the reader’s reaction and ways of solving any puzzles that come up in the course of reading. RA has developed a series of protocols or tools to formalize this kind of questioning; one, for example, asks students to keep a double-entry journal detailing “What do I

know” and then “How do I know it?” from the text; in another protocol, they write down “what I saw in the text”, like evidence and quotes, and then pair that with “what I thought”, or what the reader understood at that point. Some of the protocols ask students to think aloud as they are reading a text, giving other students alternative ways of reading and providing the instructor with diagnoses of students’ thinking as they read.^{xx} Note that these questions asked of texts are much more sophisticated than questions of simple comprehension that we often saw in remedial reading classes; and they generate more complex ways of approaching reading than conventional methods like SPQ3R,^{xxi} which doesn’t provide much guidance about what kinds of questions might be asked of a text.

However, RA is much more than a method for developing sophisticated questions. At the community college, the cornerstone in Reading Apprenticeship’s instructional framework is a series of meta-cognitive conversations about how we read, why we read in the ways we do, what we think when we read, and what we can learn from the way others think and process information. Reading Apprenticeship supports the hypothesis that students who may lack strong independent literacy skills can quickly incorporate strategies to help them meaningfully interact with challenging texts. In this way, content instruction and reading instruction are inextricably linked. Sustained interaction with text helps to strengthen critical thinking skills, motivation, and confidence. These skills are also transportable to other classes (i.e., history, social science, and science classes), where students may not have the benefit of Reading

Apprenticeship (RA) instruction, but where they can internalize the strategies and easily apply them to other contexts. The overall result helps foster the student's mastery and self-identity as a "reader." This philosophy directly challenges the remedial pedagogy present in most developmental teaching.

RA emphasizes four "interactive dimensions of classroom life". The *social* dimension stresses literacy as a form of social interactions, and uses student interests in social interaction to share talk about texts, share reading processes and interpretations, and notice other students' ways of reading. The *personal* dimension strives to develop students' identities as readers, develop confidence and range in reading, enhance fluency and stamina, and clarify their own purposes and goals in reading. The *cognitive* dimension involves the development of the specific comprehension and problem-solving strategies that can be applied to academic texts. The *knowledge-building* dimension stresses building schema by which to understand a text, enhancing content knowledge, understanding word structure and vocabulary, and developing knowledge of text structures, including the different structures used in different disciplines. In the classes we observed, the social dimension was widely used to frame meta-cognitive conversations, providing students with opportunities to work in groups; the personal dimension was observed in many cases where students related assignments to their own experience and knowledge. The cognitive and knowledge-building dimensions were less clearly visible, though we could see

student-led conversations about such topics as how they approached the homework assignment and the use of prepositions.

We noted in courses that successfully incorporated RA tools and strategies that students seemed fully engaged for most of the class periods, in contrast to the sporadic engagement we usually saw in classes dominated by remedial pedagogy; in contrast to conventional classes, students in classes using RA seemed to take responsibility for their learning, rather than passively receiving instruction. The reason for increased student engagement is that RA encourages classes where there is interaction among students, where there is a great deal of talk about text, where differing interpretations are discussed, and where problem- and project-based work is more common. As one instructor considered an RA expert in the state declared, her classes are “more active, student-directed, problem-solving and inquiry-based than non-RA classes”. Classrooms that incorporate RA tools and strategies therefore look very different from the drill-and-practice of conventional reading classes following remedial pedagogy, with their emphasis on grammar, vocabulary and parts of speech, short reading passages examined for literal comprehension, and little effort to ask more complex questions.

Indeed, all four researchers expressed the view that some of these RA classes were among the best teaching they had ever seen, both in basic skills classes and in content-based courses, and in both interactive and in lecture-

oriented classes. The amount of talk and the sophistication of discussions were one part of these exemplary RA classes; as one instructor said,

If you have taught low level students, you know they don't talk. My students talk, they love the routines, the pair-share and think-aloud. They are excited.

Along the same lines, another instructor said: "Students are much more willing to ask questions and our discussions are a lot deeper and richer." A third noted,

They [the students] are discussing and consulting with each other regarding what they are learning, relying less on me as the "giver of knowledge", and are more active learners.

Yet another instructor, who again noted the increased participation in her RA classes, said "RA has been my antidote to burnout; I am amazed each day at the connections and perceptions that my class bring to the classroom". The delight that this instructor felt about her students' capacity to engage with complicated text was repeated in many other interviews.

Reading Apprenticeship is also one of the few innovations that, like the writing process of the National Writing Project, can be used in a variety of subjects, not just in developmental reading courses. One biology instructor (and chair of her science department) adopted RA because of her frustrations around students not reading course materials. She said, "Here's what we're trying – this has been pretty successful." She admitted, however, that RA is "pretty far afield" for science faculty who generally have not thought about reading from an educational standpoint; she has to translate terminology such as "meta-cognition" and try to get them to start thinking about reading. There's little

doubt that the use of RA by teachers in subjects other than reading is less common, but that's not surprising as long as such instructors do not see themselves as teachers of reading. Our point is that Reading Apprenticeship has the potential to be extended to any number of subjects including CTE with its demanding reading requirements.

However, RA is a complex reform with many elements, and it can therefore be used in many different ways. In general, in the classes we observed, instructors used those elements they found the most useful; as a result there is no one way that RA is interpreted across different classes. In the classes taught by RA leaders – those involved in the statewide work to train others in RA – it is common to observe a wide range of RA tools and strategies, and meta-cognitive discussions woven around all four of the RA dimensions.

In other cases instructors chose from among RA approaches. For example, in one biology class the instructor interspersed a few RA tools throughout what was otherwise a conventional lecture, illustrating that RA can be used selectively, or in incremental steps. In an ESL class, the instructor used RA to generate more sophisticated questions, but she used them in a conventional IRE (inquiry-response-evaluation) format rather than drawing on the social and cognitive dimensions of RA. And sometimes instructors purported to be using RA but were not; for example, one instructor who told a researcher that she was using RA was in fact practicing traditional and not very effective group work assignments. In practice, then, there is a wide range of incorporation of RA

perspectives and methods into community college classrooms. It's difficult to know whether this is a positive dimension of RA, allowing flexibility in instructors' uses of it, or a negative dimension in the sense that it's difficult to find "pure" forms of RA (or implementation with complete fidelity, as an evaluator might phrase it). However, it is an unavoidable aspect of community college teaching, where instructors must be intrinsically motivated to change their instructional methods and are much less accustomed than are K-12 teachers to have their instruction shaped by external influences.

Just as instructors have used RA in different ways, colleges have also taken different approaches to incorporating it. One college sent 30 instructors to training, about half of whom continued to use it. Another used RA as one strand of its overall approach under the state's Basic Skills Initiative, with 12 - 15 faculty receiving training. The incorporation of RA seemed to be strongest at the college we call Choctaw, with a supportive dean and an English department that has developed its own innovative approach. In two other colleges we visited there is now little institutional support for RA, though a number of faculty continue to use it individually. The initial dissemination of RA has been driven almost entirely by funds from the Basic Skills Initiative and from federal grants through Title III and Title IV. But problems arise in two ways: when the funding runs out, as it inevitably does, and colleges no longer pay for training (a problem common to most innovations); and when instructors return to their colleges and look for a support structure at their own college, a problem more specific to RA.

In terms of support groups, several colleges have developed Faculty Inquiry Groups (FIGs) around RA, which can provide guidance and mentoring for novice instructors as well as a forum for discussion and recruitment. But where FIGs have not developed, faculty are left to implement RA on their own. From focus group and interviews, some instructors believe that the implementation of RA could be facilitated by greater engagement of administration, but there has so far been little such support except in the provision of short-term Basic Skills Initiative funding in a few colleges.

The importance of continuing institutional support – through FIGs, or through faculty centers like the Center for Teaching and Learning we saw at Chaffey College – is well illustrated by the experiences of those new to RA. Through interviews, the researchers learned that a number of individuals who participated in the RA training have either given up teaching with RA methods, or have not even tried to apply them. The most common outcome was that the RA trainees would return to their college filled with enthusiasm but also feeling overwhelmed. They would try a range of RA tools and strategies as soon as possible and, all too often, discover that they could not make them work – that is, they encountered student resistance^{xxii} or a lack of student motivation. Then, in the absence of any support structure or RA leaders in their department or college sympathetic peers who could work with them, they gave up RA. Instructors particularly vulnerable to this kind of “early leaving” were those working on a campus without any kind of administrative support or FIG. In part,

this may be due to the fact that RA and its workshops concentrate on providing *individuals* with the skills to teach in different ways, but they do not stress the need for on-going *institutional* support as well. And of course most colleges have not provided much backing for instructional innovations, except when something like the Basic Skills Initiative or another external grant comes along, and very few of them have all-purpose centers like the Faculty Success Center at Chaffey College. Overall, while RA is supported by FIGs on a few campuses, it is otherwise floating on its own, supported by a few committed faculty leaders but not by any institutional resources.

RA has been evaluated, in a formal random-assignment evaluation of 9th graders, with some critical implications for community colleges. The evaluations show mixed results: Over the 9th grade, students improved from an average reading level of 5.1 grade-level equivalent (GLE) to 6.1 for students who had gone through the program, compared to 5.9 for students in conventional English classes, a positive effect of something like 25%; in classes with moderately or well-aligned implementation and longer duration the increase was slightly greater, to a GLE of 6.2. (Implementation was somewhat difficult, and 10 of the 34 schools participating were rated poor in implementation – a result similar to our finding of inconsistent RA implementation in community colleges.) In addition, students' grades improved in core subject areas (language arts, social studies, science and math). However, while reading comprehension improved, the reading interventions did not make any significant difference in the amount

of reading students did not to their use of reflective reading strategies.

Furthermore, these improvements did not last into tenth grade, when Reading Apprenticeship strategies were no longer taught explicitly to students.^{xxiii} For community colleges, the implication is that when Reading Apprenticeship is implemented with reasonable fidelity, it benefits students in both their reading comprehension, and in their reading and performance in other subjects; but the benefits fade once Reading Apprenticeship instruction stops. For students in a *sequence* of basic skills course, this means that the consistent use of RA across a series of courses would be beneficial, but that the positive impact would disappear over time if only one course incorporates RA tools and strategies. When we return in Working Paper 8 to the alignment of developmental courses over time, this finding will become one of the issues in considering whether alignment is successful or not.

Overall, Reading Apprenticeship comes in many forms and shapes. Instructors use it in different ways, and community colleges have provided varying levels of support. However, when it is fully understood and incorporated into developmental courses in genuine ways, RA changes the ways that classes are conducted, and helps instructors move away from remedial pedagogy to more active and more student-focused classes, and more sophisticated analysis of texts appropriate for college-level coursework. We think it deserves greater consideration in community colleges as one way to address

the inadequate reading preparation of students, in ways that are consistent with the efforts to prepare them for college-level work.

The National Writing Project and the Writing Process

The National Writing Project has been devoted to the improvement of writing, principally in K-12 schools but in two- and four-year colleges as well.^{xxiv} The Writing Project has developed a peer-to-peer approach where writing instructors learn from other instructors who have been through various trainings and workshops – “Teachers are the key to improving education, and the best teachers of teachers are other teachers”, as one of the NWP principles says. The projects themselves are regional – for example, we interviewed instructors from the Central California Writing Project, a Project that has had a relatively large number of community college instructors. In general, however, we had a relatively difficult time finding community college instructors who had attended NWP workshops and who continued to use its ideas. While the Project has tried to incorporate community college faculty, there are few incentives for writing faculty to participate unless they want to improve teaching on their own.

The National Writing Project has a series of principles, much as Reading Apprenticeship does, but they do not formally specify a particular approach to writing; as the principles state “we promote no set formulas or packaged plans,

though we are committed to an underlying philosophy". However, they do stress the need for consistent and copious writing, a belief that "meaningful change happens over time", and that "teachers of writing must write" – and indeed the workshops of the NWP involve attendees in actual writing, not just talk about writing. As one of the instructors we interviewed said, "we are not like a program". There is no binder that can tell you what's happening."

In practice, however, NWP is often known for the writing process approach, the very antithesis of remedial pedagogy with its part-to-whole development of formally correct sentences, paragraphs, the 5-paragraph essay, and then the "research" essay, with drills on grammar, spelling, and punctuation. As one NWP instructor noted, in other classes "students have to memorize mechanics and MLA" (Modern Language Association formats for reference). Instead, the writing process stresses writing as a form of communication among people and as the expression of ideas, emphasizing the social dimension of writing from the outset. The writing process tends to break the process of writing into discrete steps that lead to a finished essay, first brainstorming ideas, then writing freely without undue concern for correctness, and then a crucial process of revision and editing (sometimes by peers or peer groups, sometimes by instructors) and creating multiple drafts. This is a fundamentally different way of breaking down the process of writing since students are always producing essays; as one instructor noted, "I would never break things apart and say, let's write a sentence or a paragraph." The steps that

instructors use seem to vary from person to person, but the idea of breaking the writing of an essay into several stages seems nearly universal. As one instructor said, “Once you see how the writing process works both for yourself and for students, there would be no way you would teach it any other way”. The mechanics of writing – grammar and punctuation, “MLA” (or any other format for citations) – are then taught in the course of writing essays in whole-to-part teaching, rather than as stand-alone exercises. NWP instructors also seem to assign more writing than do others because of the belief that good writing takes practice and time to develop, rather than the memorization of grammar rules. This may be reason enough for community colleges instructors to avoid the NWP approaches, since the conventional emphasis is usually on “covering” the greatest amount of material in the smallest amount of time. In addition, many English instructors – and particularly part-time instructors – have limited ability to read large quantities of student writing with large classes and no TAs.

From the instructors we interviewed, we think that there is a great deal of self-selection among the faculty who choose to attend NWP workshops. First of all, while the NWP process (like Reading Apprenticeship) could be valuable to a wide variety of instructors with writing in their classes – philosophy instructors, history instructors, sociology and anthropology instructors, even instructors in CTE where students have to write precise treatment plans and manufacturing protocols – virtually all of the community college instructors who have been through the NWP seem to be writing instructors. Furthermore, most were

attracted to the NWP by one or another of its principles; then the workshops provided further reinforcement, as well as specific techniques to use in the classroom. Furthermore, it is clear that instructors use a variety of methods they have picked up from several sources; most had difficulty articulating what they had learned from NWP workshops and which came from other sources. But these characteristics of instructors in turn implies that the NWP approach could not be forced upon writing instructors: instructors wedded to remedial pedagogy would simply refuse to go to workshops, and those who went and failed to accept the principles of the NWP would simply not use any of its methods. This is yet another illustration that innovation in basic skills instruction has to start with the faculty and spread outward; it cannot be imposed in any way, as some reforms have been within K-12 education.

The workshops provided by the regional groups of the NWP are crucial forms of professional development. This is where individual instructors meet other, more experienced NWP instructors, see the principles of the NWP in action, and practice both the writing and revision procedures that are so much a part of NWP. In addition, by joining in these groups, instructors get access to the entire regional and national network of the NWP, and on occasion this provides them information about a project or approach that has been developed some distance away. For example one of the instructors we interviewed used a process developed at the University of California called Improving Students' Analytical Writing, or ISAW, which prepares U.C. students for the writing exams they must

all take. While ISAW is largely used by U.C. instructors, it is equally useful for individuals preparing high school and community college transfer students. The idea is that, in turn, instructors who have been through these workshops and use NWP approaches will become mentors in subsequent workshops, replenishing the supply of NWP instructors. Most of the community college instructors we interviewed have continued to work with the NWP in some way, for example by exchanging lessons and ideas with other NWP participants at both secondary and postsecondary levels – creating a community of practice and support that doesn't ordinarily exist in the community college.

As wonderful as the NWP workshops seem as professional development and as ways of modeling the NWP's writing philosophy, they are focused on developing *individual* instructors, not departments or groups of instructors. Several instructors we interviewed were therefore isolated practitioners in their own colleges; one had tried to give workshops during the college's professional development days, but "the group somehow didn't survive – it just petered out". At another college several writing instructors had attended NWP workshops, and they formed a small support group for one another. But the fact remains that while the NWP preaches a social and collective approach to the teaching of writing, the support group is the regional network of writing instructors, not a college- or school-based network, and nothing in the training would encourage the development of a supportive structure in a college where instructors were otherwise isolated. As is true for Reading Apprenticeship, one

could imagine the development of a Faculty Inquiry Group around NWP approaches, and a faculty-centered teaching and learning center could also provide a place where NWP methods are circulated and reinforced. But in the absence of a more concerted institutionalized effort, NWP instructors seem like specific examples of idiosyncratic innovators, following different elements of a well-developed program but essentially isolated from their peers who continue to follow the more familiar remedial approaches to writing instruction.

We also suspect that the principles of the NWP could be the basis for departments to develop distinctive approaches, in the ways that the math and writing departments profiled in Section II have. In a couple of colleges, a relatively large number of instructors have attended NWP workshops, and the writing process has influenced the teaching of a number of faculty. But somehow distinctive department-wide approaches have not coalesced from these influences; to do this would require several other ingredients – leadership from the faculty, a willingness of NWP-inspired instructors to continue working with other instructors, support from administrators, a lack of resistance from “traditionalists” and a general consensus on the very different approaches of these NWP – that have not occurred. Even though the writing process has the potential for widespread influence, then, it remains more fragmented and idiosyncratic than the department-wide reforms we have seen.

Like Reading Apprenticeship, the NWP approach has been subject to evaluations, though not to the same kind of random-assignment evaluation that

Reading Apprenticeship has. The results indicate that most (103) of the 112 comparisons made in 16 studies favor the students in classes where instructors have been trained by the NWP, with 57 of them statistically significant; the results are particularly strong in areas that NWP emphasizes like the development of ideas, the organization of writing, and the writer's stance. Furthermore, students in NWP classrooms did better than their peers in writing conventions, implying that basic skills benefit from the writing process as well as higher-level writing abilities.^{xxv} There seem not to have been any long-term follow-ups, so it is unknown whether the benefits of NWP approaches are subject to "fade-out" over time, as RA outcomes are, but it seems reasonable that inconsistent approaches to writing — a student moving from an NWP teacher to a conventional instructor following a remedial approach, for example — are unlikely to yield the same sustained benefits that a consistent departmental approach would. This is a general problem, of course, not one confined to Reading Apprenticeship or the writing process; as one innovative math instructor noted, "If I pass students on to a poor instructor, then all my work is for nothing."

Like Reading Apprenticeship, then, the approach of the NWP is a promising way to teach writing and to break the hold of remedial approaches. But to make inroads into the community colleges, we suspect that a considerably stronger institutional process of support is necessary, one at the college level rather than (or in addition to) that at the regional or national level. Once again,

strong writing departments with a NWP approach could develop, under the right conditions; faculty teaching and learning centers and faculty inquiry networks are other ways of encouraging and supporting the adoption of NWP beliefs and practices. But without such institutional support, this particular innovation reverts to the model of the idiosyncratic practitioner, and is unlikely to reach more than a handful of students.

V. FACULTY INQUIRY GROUPS AND FACULTY INQUIRY NETWORKS

Within many colleges we visited, Faculty Inquiry Networks (FIGs) have developed, where faculty meet regularly around issues of common interest. Quite often FIGs are spearheaded by one or two relatively senior faculty members, who work to drum up support and participation among other faculty. The possibilities for FIGs seem endless. Some of them have concentrated on collecting data to diagnose problems; along the same lines, some have initiated research on specific classroom issues, in a replication of the teacher research that has been practiced in K-12 education for many years. Some have investigated students and barriers to their progress; in some cases this has broadened to understanding the extreme heterogeneity of students in basic skills classes, from “brush-up” students to those with learning disabilities. As we saw in the previous section, FIGs can provide support for faculty engaged in innovations

like Reading Apprenticeship or the writing process. They can be places to recruit new faculty to innovations like learning communities or accelerated programs. Sometimes specialized FIGs have emerged, like the Freshman Interest Groups that have formed in some colleges around the Freshman experience; indeed, one of the enduring benefits of these FIGs has been to initiate freshman-year experience programs including Student Success courses. And FIGs have spawned a FIN, or Faculty Inquiry Network, which has joined FIGs on different campuses into a broader network, helping spread ideas about innovation from one campus to another.^{xxvi}

It's difficult to understand precisely what FIGs can and do accomplish, however, since they have varied so much both in the extent of faculty participation and in the activities they pursue. However, one "natural experiment" about the activities and longevity of FIGs suggested itself. In 2008-2010 the Carnegie Foundation for the Advancement of Teaching supported a network of 11 colleges, dedicated to creating FIGs in order to address basic skills issues. The project, Strengthening Pre-collegiate Education in Community College or SPECC, served as a laboratory and locus of inquiry for faculty trying to understand and improve student underachievement. To focus on what the most organized FIGs accomplish, particularly after funding to support them ended, we decided to interview the heads of these FIGs about their continuing activities after the end of the Carnegie grant.^{xxvii} We were able to interview 7 of the 11 directors; the others had retired or moved away from the area.

All of the SPECC projects were able to build on previous reforms – in the pattern we saw in departmental innovation, where extensive changes have come about through a series of external and internal initiatives. However, when the SPECC funding ended, the problem of transitioning to another funding source arose. Some colleges were able to obtain Basic Skills Initiative funding to continue, but others were not – in which case the perpetuation of FIGs depended on the ability of their leaders to continue rallying the faculty without stipends for release time or small grants for faculty projects. The small-scale initiatives ended when external Carnegie funding ended; as one faculty leader mentioned, when asked about the faculty projects funded, “It’s been quite a while – I don’t remember half the projects”, so it became clear that many small projects, memorable only to the faculty who had led them, had failed to catch on with other faculty members. (For the moment we note the penchant in colleges and by foundations with grant money for funding small initiatives by faculty, and will return to the weakness of this approach in Working Paper 9.) The remaining FIGs seem to settle into two groups: one group continued to examine patterns of teaching and learning, while another continue with inquiry into the nature of students. But while they provided forums for discussion, served as antidotes to the isolation of faculty,^{xxviii} and maintained a faculty awareness of the basic skills problems, they didn’t seem to accomplish anything beyond what had been done under the SPECC grant (particularly in freshmen year experience and Student Success courses^{xxix}).

One of the consistent problems mentioned by the heads of SPECC initiatives was the lack of administrative support. Administrators weren't hostile to such faculty groupings, and as long as they found outside funding (as from SPECC) administrators were happy to have faculty meeting with one another – the typical description was that administrators were “hands-off”. But this kind of “hands-off” approach generated some hostility among faculty leaders. One took a more historical perspective: “There is very little in terms of the academic program that is initiated above the dean level”; another said pointedly that “they're relatively poorly informed about what we're doing”, and another said simply “I'm really disappointed in them.” Yet another, talking particularly about efforts to get part-time faculty involved in FIGs, requiring stipends of some kind, declared “I don't think they [administrators] think it's important. I think that they have taken us [adjuncts] for granted and they take for granted the fact that we will do it for free.” She went on to say that recognition by the administration was almost more important than compensation for participation, and that the lack of recognition is a sure-fire way to demonstrate the lack of any real investment in innovation or any desire among administrators to change the success of the community college.

One pair of SPECC leaders, widely recognized as among the most innovative instructors in the California colleges, developed a sophisticated understanding of what does and does not change when administrators are so “hands-off”. They insisted that they can “move the needle” – improve rates of

success – in individual courses through instructional improvement, which can be developed through FIGs or through departmental initiatives. But they cannot “move the needle” on larger measures of success – for example, completion of a developmental sequence, movement into college-level courses, and eventual graduation or transfer – because doing so requires so many more practices to change:

You need acceleration, accurate data . . . and the administration needs a strategy, they need to ask why there isn’t progress and then come up with a variety of solutions.

In other words, “moving the needle” on the largest measures of success requires changes beyond the individual classroom, and these need to be coordinated – first by a vision, and then by a “strategy” and a “variety of solutions” – that can only come from administrators.^{xxx} Another FIG leader admitted the same thing, in a less complex construction:

We often assume that faculty development impacts faculty practices and in turn impact student results and experiences and increase outcomes – but it’s hard to make that connection. It’s difficult to point at faculty development as the cause for student success.

And indeed several FIG leaders noted that there was no data whatsoever that FIGS had made much difference to outcomes.

In the end, FIGs in California – both under the SPECC grant, and less clearly after SPECC ended – have been successful in promoting faculty discussion, in ending the isolation of faculty, in increasing the amount of talk about basic skills issues and problems. These are unabashedly good things in any

institution of higher education. They have also made some changes, notably in supporting some individual initiatives and Student Success courses. But we note that individual initiatives – like the idiosyncratic innovations we examined in the first section of this Working Paper – and establishing student success course are comparatively easy innovations: they fit with the standard practices of courses, taught in a conventional schedule by conventional faculty, and they don't involve any changes in deeply-rooted practices as learning communities, departmental innovations, or pedagogical changes (including Reading Apprenticeship and the writing process) do. For more substantive changes – those that have a chance at “moving the needle” on overall success rates – something more than isolated course innovation is required, and that cannot happen without administrative support.

In many ways, then, the experience with FIGs confirms our hypothesis that substantial change requires “innovation from the middle” – from senior faculty *and* from middle-level administrators working in concert. FIGs have managed to create the first of these, especially since they are typically led by active, senior-level faculty who command a great deal of respect in their colleges. But they completely lack the second ingredient since administrators have been “hands-off”, unwilling to learn about or invest in the FIG efforts that they see as solely the responsibility of faculty. It turns out that this is no way to innovate.

VI. THE LOCUS OF INNOVATION

There are still more innovations in the colleges we have studied that we have not mentioned here. For example, one promising approach has been to develop learning communities for specific groups of students with common interests – African American students in programs like UMOJA and Deraja, Latino students in Puente and the Digital Bridge Academy (now called the Academy for College Excellence), older students (and especially women returning to education after childrearing) in the PACE (Program for Adult College Education) program. Another innovation, now particularly popular, has been to accelerate basic skills courses, or to compress work so that completing a series of courses takes less time – on the theory that the transitions among courses need to be minimized since that’s when students are most likely to leave a sequence. We did not investigate acceleration since that practice typically does not change instruction but merely speeds it up – and we will point out that a faster pace of conventional instruction based on remedial pedagogy is not, in the long run, a good solution to the problem of poor progress.^{xxxix} Finally, there are many more individual innovations than we could possibly cover, including efforts to develop computer-based instructional formats.

The problem is not, therefore, a lack of bright ideas about how to reform basic skills instruction, nor a lack of energetic faculty willing to try new practices. The problem is that what we will call the locus of innovation – the constellation of forces generating innovation – is often weak or incomplete. Evidently,

innovation from the bottom, by individual instructors developing their own modifications of standard practice, often looks quite effective — at least in the sense that students appear motivated, and that these innovations usually move away from remedial pedagogy — but it is also quite limited in the numbers of students it reaches. Perhaps as important, such innovation may change one course in a *sequence* of basic skills courses, but it does not have the scope and power to change the entire sequence itself — and changing one or two courses in the end is unlikely to make much difference to overall success rates. Similarly, FIGs, as well as some freshman year experience programs and Student Success courses, have managed to generate some idiosyncratic innovations, but these again reach relatively few students — rather than the large numbers of students pouring through developmental education.

Similarly, *innovation from the top* doesn't seem workable, and indeed we saw no examples of innovation that have been initiated largely by administrators. This does not mean, to be sure, that innovation from the top is impossible; but administrators are reluctant to infringe on academic freedom and instructor prerogatives, and — as we have seen in departmental innovations — the acceptance by relatively large numbers of faculty is crucial for an innovation to become widespread. We certainly think that administrators could fund various programs that would support faculty initiatives. These might include programs to provide support to individual faculty initiatives, as some college shave done with their Basic Skills Initiative money — though this just reverts to

innovation from the bottom with its small-scale initiatives reaching relatively few students.

The most promising, we think, are the faculty teaching and learning centers on some campuses that provide a consistent and institutionalized space for discussions about teaching and learning, support for innovations under development, ways of recruiting faculty to participate in innovations, and methods of identifying and then proposing solutions for various instructional problems, including (but not limited to) those in developmental education. However, a faculty teaching and learning center needs the widespread participation of faculty, and the best example we have seen — the Faculty Success Center at Chaffey College, profiled in Working Paper 7 — emerged from a larger initiative focused on multiple dimensions of student support, with the active participation of both faculty and administration. So we suspect that even these teaching and learning centers cannot be made particularly effective without faculty leadership and active participation, *as well as* administrative support — a good example of innovation from the middle.

Indeed, if *innovation from the bottom* does not work well in several respects, and *innovation from the top* is largely missing, this leaves *innovation from the middle* as the most promising course of action. We have been most impressed by the departmental efforts reviewed in the second section of this working paper, spanning a number of faculty members (if not all the members of a department) as well as the participation of middle-level administrators. They have resulted in

both changes in instructional approaches, moving away from remedial pedagogy to department-established alternatives, and methods of institutionalizing such changes through hiring practices, mentoring and professional development, and the creation of teaching materials. Such approaches also have the possibility for making a sequence of courses consistent with one another, a form of alignment that happens only when faculty can get together to discuss course prerequisites and a *sequence* of courses (something we will discuss more fully in Working Paper 8). But they happen only under special conditions: When a department recognizes that something is wrong with business as usual; when a department has resources (either outside grants or internal funding) over the extended period of time necessary to thrash out alternative approaches; when they have some control over the hiring process so they can attract like-minded faculty; when faculty have the ability and (again) the resources to create mentoring programs for new and older faculty alike; and, in the best of these cases, when they can also influence student services to provide support in forms consistent with their pedagogical innovations. All of this requires that a department have some influence not only over their own courses, but over practices – hiring practices, mentoring and professional development – that formally lie outside the department. This is where the roles of administrators come in, with the kind of vision as well as the executive power to make decisions that can coordinate the many working parts of a community college.

Finally, we should admit that the innovations we have profiled in this chapter are promising, but their value has not yet been confirmed through careful evaluation. With the exception of Wisely's (2010) research on contextualized basic math courses, some of the research on learning communities, and (in the K-12 setting) such borrowings as Research Apprenticeship and the National Writing Project, there isn't much confirmation of "what works". The innovations we have profiled are certainly promising in the sense that they replace remedial pedagogy with alternatives, and – given the many limitations of remedial pedagogy, covered in Working Paper 2 – that is enough to justify the interest of community college innovators. Still, a crying need is for colleges to engage in more evaluation of their own programs and to participate in broader evaluations

So there's no lack of promising reform: the blizzard of innovation we mentioned at the beginning of this working paper is certainly real enough. But picking through these innovations to determine which of them might affect some substantial numbers of students remains a difficult task, and understanding the locus of innovation has required us to review a large number of reforms *and* the processes that have put them in place. With this understanding, we hope that other colleges will be able to participate in the necessarily long and difficult process of reforming from the middle.

FOOTNOTES

ⁱ This is one of several reasons why random assignment evaluations may not be appropriate: when innovations take a certain amount of time to develop, early evaluation is inappropriate.

ⁱⁱ See Wiley (2010) for an evaluation of math courses integrated with CTE in California; footnote 13 for evaluations of learning communities; and Hern and Snell (2010) for an evaluation of accelerated courses, though one that is potentially badly flawed (see footnote 29). Most evaluations examine whether or not developmental education improves outcomes, not what kind of developmental education helps the most.

ⁱⁱⁱ See Shaughnessey (1977) and her insistence that “bad writing” can be diagnosed as having a certain pattern and consistency that must be diagnosed and then corrected to produce proficient writers. Shaughnessey seems not to be widely read anymore, judging by references in current writing on basic skills.

^{iv} Here we are describing the effect of individual instructors on their departments. There is a different pattern, mentioned in Working Paper 2, where ESL classes provided the greatest mixture of short activities that allowed for change of pace, style and content whereas math classes were more likely to be locked into a single approach/activity for the whole class.

^v For other evidence on the dominance of trial and error, see Grubb et al. (1999), pp. 44 - 49.

^{vi} We visited one college, which we call Mesas College, specifically to see their math department.

^{vii} This course uses Staley (2010), entitled *Focus on College Success*, with subjects like setting goals, managing time, thinking critically, and test-taking. The panel of instructors thanked in the book’s preface includes both two- and four-year college faculty, implying that such courses are as necessary in four-year colleges as they are in community colleges.

^{viii} The department has taken a mastery approach though students are reportedly not flunked as a result of these quizzes, though they may be required to do some make-up work to achieve mastery before moving on. Mastery learning methods are commonly responsible for creating tests oriented to narrow questions and remedial drill, so the use of mastery learning in a more constructivist department is noteworthy. The issues of mastery learning will be taken up in the concluding working paper.

^{ix} This is a dilemma articulated in Cox (2010): these students don’t seem to understand that the purpose of class is to learn, rather than simply to complete a set of required exercises for a grade. Learning the answers from others is an effort-minimizing strategy for accomplishing the second goal, but not the first.

^x We note that the role of students themselves complicates the evaluation of alternative forms of instruction. The question is whether students’ behavior should be included in evaluating the effectiveness of classes, in addition to

instructor practices, or not. Technically, the question is whether student behavior is entirely endogenous, a function of instructor practices, or whether – after twelve years in a schooling system – their behavior is partly exogenous. If the latter is true, then no evaluation is complete without considering student behavior.

^{xi} We interviewed at great length a representative of the traditional skills approach to ESL, who complained about him and his methods being marginalized by the department. He was concerned that the MEAP approach did not address the needs of all students, true almost by definition, and that it did not provide a logical sequence of skills and grammar – a principle about which the two camps disagree. He also noted that the effectiveness of the content-based program might vary for groups of immigrants: the sociable Mexican students enjoyed the social aspects of teaching focused on student participation, while the dour and rule-bound Russians don't feel that they're really learning unless they are doing grammar, memorizing, and drilling.

^{xii} This section benefits in particular from a work in progress by Gabriner (2011), which provides much more detail about what this process looks like and what its implications are for leadership development.

^{xiii} We note that this kind of innovation in community colleges is similar to conceptions of distributed leadership and the centrality of teacher-leaders in K-12 education; see Spillane (2006) on distributed leadership, and Grubb and Tredway (2010) for an analysis of what teacher-leaders need to understand about their schools.

^{xiv} For some descriptions of learning communities see Matthews (1994), Tinto, Russell, and Kadel (1994), Smith (1991), Grubb and Associates (1999), Price and Lee (2005), and the extensive work of the Washington State Center for Improving the Quality of Undergraduate Education at Evergreen State College in Washington (www.evergreen.edu/washcenter/home.asp). For older evaluations see Tinto and Goodsell-Love (1995), Tinto, Goodsell-Love and Russo (1994); and Tinto, Russo, and Goodsell-Love (undated). For more recent random-assignment evaluations, where the effects tend to be modest and confined to the semester of the learning community, see Visher, Teres, and Richman (2011); Weissman et al. (2011; Weiss et al. (2010); and Scrivener et al. 2008 for some of the most positive results. Given our finding in this chapter of how long it takes for innovations to fully develop, we suspect that the methodology of MDRC's evaluations – where learning communities are evaluated soon after they are created – yield serious under-estimates of the outcomes of these innovations if they can be brought to maturity. We suspect that the true benefits are somewhere between the quasi-experimental estimates of Tinto and his collaborators and the small effects of random-assignment studies.

^{xv} For example, colleges in Washington and Oregon benefit from the proximity of the Washington State Center.

^{xvi} On evidence for California see Wiseley (2010); and oral communication, Mary Visher, MDRC, based on the extensive work of MDRC evaluating learning communities across the country.

^{xvii} We can reasonably surmise that the colleges responding included a disproportionate number of those with contextualized courses and learning communities, and that those not responding did not have any contextualized courses. If so, 16 contextualized courses in all of California, with its x.x million community college students, is a particularly small drop on a very large bucket.

^{xviii} We also benefitted from evaluations of RA by members of the Research and Planning Group; see Mery and Schiorring (2009-2010) and (2010).

^{xix} One of the clever elements in the 2-hour workshop is an application of RA methods to a cartoon, clarifying that a “text” need not be a conventional written text. Thus RA would be useful in reading charts, tables, and maps (a facility sometimes called document literacy), and the complex visual representations used in occupational classes. However, virtually all of the uses of RA we observed involved conventional written texts.

^{xx} We also talked with an instructor who had serious reservations about RA. She felt that the emphasis on meta-cognitive questions, and the emphasis on think-alouds and meta-cognitive protocols, might detract from “interacting with the text”, and that the protocols themselves might become the focus of attention in place of the text. But she offered no alternative methods of leading unsophisticated readers into “interacting with the text”; our interpretation is that RA provides one approach — and surely not the only approach — for more sophisticated ways of interacting with text.

^{xxi} SPQ3R is a reading strategy of first surveying the text, then predicting what it is likely to be about, then generating questions to ask, then reading the text, reciting or writing what the reader has learned, and finally reviewing the text, predictions and questions, and the information gained from the text. The technique seems designed principally for reading for information transfer, fostering less interpretation than the methods of RA.

^{xxii} From interviews and focus groups with instructors, student resistance comes in at least two forms: resistance from students who are asked to be more active and participatory in class; and students in core subjects resisting spending time on reading-related activities that they didn’t see as directly relevant to the subject they were studying — “this is not a reading class”. The notion that reading instruction ends in grade three seems as common among students as it does among faculty.

^{xxiii} This summary of the evaluations skips over many technical details. For the ninth-grade evaluation see Kemple et al. (2008); for the tenth-grade results see Somers et al. (2010). The Enhanced Reading Opportunities Study evaluated one program in addition to RA, Xtreme Reading from the University of Kansas. The two programs did not differ in their effects, however. We have not heard of any efforts to use Xtreme Reading in community colleges.

^{xxiv} Unfortunately, federal funding for the NWP was eliminated by a short-sighted Congress during the funding crises of 2011. We seem to be having two

disjoint conversations in the country, one about the need for higher levels of skills so that we can be internationally competitive, at the same time that national and state governments are cutting funding for all levels of education, as well as for projects like NWP that could enhance the quality of student work. It's unclear what effect this cut in federal funding will have on the work of the NWP with community colleges.

^{xxv} See the summary of studies on the NWP website, www.nwp.org/cs/public/print/resource/3208#. The usual caveats about evaluation studies apply, including the strong possibility that the NWP-trained teachers were not a random sample of English instructors.

^{xxvi} For a California FIN focused on basic skills issues, see <http://facultyinquiry.net>.

^{xxvii} We thank Rose Asera, the director of SPECC, for encouraging us to pursue the SPECC directors, and for providing us their contact information. The publications of SPECC can be found on the website of the Carnegie Foundation, www.carnegiefoundation.org/publications_archive.

^{xxviii} For more on the isolation of faculty see Grubb and Associates (1999), pp. 49 – 56.

^{xxix} Establishing a student success course is a comparatively easy innovation: it fits with the standard practices of courses, taught in a conventional schedule by faculty who can come from the counseling and guidance department, and it doesn't involve any changes in deeply-rooted practices as learning communities, departmental innovations, or pedagogical changes (including Reading Apprenticeship and the writing process) do.

^{xxx} This kind of leadership across departments might also come from faculty leaders like academic Senates, though the changes of membership in these bodies makes it difficult to maintain any consistent initiative.

^{xxxi} Acceleration has become popular in California partly because of an evaluation of the program at by Hern and Snell (2010) at Chabot College that shows much greater success in passing accelerated courses than the equivalent non-accelerated sequence. However, a large but unknown fraction of students in the accelerated courses were also enrolled in a learning community for African American students, Deraja, so the positive effects might be due either to acceleration or to Deraja – no one knows

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