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Course-Embedded Mentoring for First-Year Students: Melding Academic Subject Support with Role Modeling, Psycho-Social Support, and Goal Setting - TA

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Abstract

This article examines a mentoring initiative that embedded advanced students in first-year composition courses to mentor students to excel to the best of their abilities. Mentors attended all classes along with students and conducted many out-of-class individual conferences, documenting each of them using program-implemented work logs. Four hundred four first-year students provided end-of-term anonymous feedback on standardized forms, which were transcribed, digitized, and tabulated for analysis. Analysis showed that the mentoring was effective in providing the four constructs key to mentoring as identified by Nora and Crisp (2008): psychological/emotional support; support for setting goals and choosing a career path; academic subject knowledge support aimed at advancing a student's knowledge relevant to his or her chosen field; specification of a role model. Analysis also revealed a key construct not mentioned by Nora and Crisp: the mentee's predisposition. Recommendations for implementing embedded mentoring for first-year students in other contexts follow the Discussion.

Keywords

Mentoring, First-year courses, Writing tutoring, Rhetoric & composition, Supplemental instruction, Writing fellows

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**Course-Embedded Mentoring for First-Year Students:
Melding Academic Subject Support with Role Modeling, Psycho-Social Support,
and Goal Setting**

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Abstract

This article examines a mentoring initiative that embedded advanced students in first-year composition courses to mentor students to excel to the best of their abilities. Mentors attended all classes along with students and conducted many out-of-class individual conferences, documenting each of them using program-implemented work logs. Four hundred four first-year students provided end-of-term anonymous feedback on standardized forms, which were transcribed, digitized, and tabulated for analysis. Analysis showed that the mentoring was effective in providing the four constructs key to mentoring as identified by Nora and Crisp (2008): psychological/emotional support; support for setting goals and choosing a career path; academic subject knowledge support aimed at advancing a student's knowledge relevant to his or her chosen field; specification of a role model. Analysis also revealed a key construct not mentioned by Nora and Crisp: the mentee's predisposition. Recommendations for implementing embedded mentoring for first-year students in other contexts follow the Discussion.

Keywords: mentoring, first-year courses, writing tutoring, rhetoric & composition, supplemental instruction, writing fellows

Introduction

While mentoring has had a long history in workplace settings to help newcomers acclimate and progress (Aryee & Chay, 1994; Darwin, 2000; Dreher & Ash, 1990; Hunt & Michael, 1983; Kram, 1988; Roche, 1979), it has more recently been an increasingly recurrent topic in educational circles (Crisp & Cruz, 2009). As research in both workplace and academic settings has shown, mentoring can transpire both informally and formally (Blake-Beard, 2001; Chao, Waltz, & Gardner, 1992; Cox, 2005). The mentor-mentee dyad can emerge spontaneously or it can be pre-assigned, with some research indicating that the latter is more effective in workplace settings (Carruthers, 1992). In academic settings, most if not all mentoring initiatives take place outside of the classroom, often for the purpose of mentoring new (or in-service) colleagues or graduate students (Barkham, 2005; Fletcher & Barrett, 2004; Eble & Gaillet, 2008; Maynard, 2000; Mee-Lee & Bush, 2003; Orland-Barak, 2001; Mullen, 2005). When it comes to mentoring undergraduate students, some initiatives have linked mentors with specific courses so that the mentors can meet with students outside of class to help student performance in the class (Banks, 2010; Quinn, Muldoon, & Hollingworth, 2002; Wells & Grabert, 2004). Students may also perceive the course instructor as a mentor based on both classroom performance and out-of-class performances (Erkut & Mokros, 1984), but no empirical studies of course-embedded mentoring—defined here as third party mentors embedded in courses along with students—can be found. As Nora and Crisp have noted, moreover, most empirical studies of mentoring "provided more of an evaluation of such programs but did not begin to examine the 'what' and 'how' inside the mentoring 'black box'" (2008, p. 340). The article that follows offers such an empirical examination by analyzing the "what" of embedded mentoring in ways that reveal some of the "how."

Several studies across the disciplines have revealed that successful mentoring improves college student retention (Austin, 2006; Drew, 1990; Lee, 1999; Redmond, 1990; Reyes, 1986; Rodger & Trembley, 2003; Sorrentino, 2007; Wilson, 2006). The correlation between mentoring and retention suggests that course-based mentoring might bolster student engagement more generally while offering college teachers added support for their classroom practices. Because research has demonstrated that engagement during the first year is critical to students' persistence rates (Grant-Vallone, Reid, Umali, & Pohlert, 2004; Nicpon et al., 2006; Pascarella & Terenzini, 1980; Tinto, 1993, p. 14), first-year courses are a likely part of the curriculum to target for course-embedded mentoring that seeks these twin goals, as has been done with course-based mentoring of first-year science students (Quinn et al., 2002). Based on this premise, a large public university in the Pacific instituted a mentoring program that embedded advanced undergraduate and MA students in composition courses alongside first-year students with the express assignment of mentoring them. That is, rather than tasking instructors to self-consciously mentor students while simultaneously teaching them or tasking another specialist to mentor students outside of the classroom, a new actor was introduced into the classroom to perform this role.

Having taken this step, analysts subsequently sought to determine if the performances of mentors met the standards for effective mentoring when compared with definitions from scholarship. Those definitions run a gamut, from a tabulating of functions and roles (Jacobi, 1991, p. 509), to a phenomenological review of scholarship highlighting the process element of mentoring (Roberts, 2000), to distinctions between "technical mentoring" and "alternative mentoring" (Mullen, 2005), to empirical research validating four "major domains" of mentoring as established through a literature review (Nora & Crisp, 2008). This last research seemed most promising for evaluating the mentoring work of the current initiative because of its reliance on a review of the literature (which included Jacobi and

Roberts) to isolate constructs, its operationalizing of the constructs for empirical research, and its confirmation of them through that research. These constructs later formed the basis for the College Student Mentoring Scale and were validated through empirical research (Crisp, 2009), making them particularly compelling for the current study.

Nora and Crisp's literature review identified four major domains or "latent constructs" that comprise mentoring: psychological/emotional support; support for setting goals and choosing a career path; academic subject knowledge support aimed at advancing a student's knowledge relevant to their chosen field; and specification of a role model (2008, p. 337). These constructs were used in the present IRB-approved study as criteria for data analysis of students' anonymous end-of-term evaluations of mentors' performances to see if these performances met these standards for mentoring, from mentees' perspectives.¹

Background: Institutional Context

The English department at a largely commuter urban university in the Pacific launched an initiative to embed English MA students and selected upper-division English majors in first-year composition classes as mentors to course participants. Building on the practice of "on-location tutoring" (Spigelman & Grobman, 2005) and drawing on pilot sections from the preceding year, these mentors were tasked with helping every student in their section perform to their highest potential. Mentors were trained via workshops that took place prior to each semester during which instructor-mentor teams could compose, adjust, and revise course syllabi to include the mentor as an active partner, and in particular to perceive ways to prompt students to meet with mentors in regular, individual, out-of-class conferences. Most instructors either made the meetings a requirement or offered incentives to students for scheduling such conferences (or penalties for not scheduling them). Mentors were allocated spaces to meet with their students individually and were also tasked with documenting each session on a standardized log, which tracked such features as conference location and length, referrals made, and topics addressed. Furthermore, each log included an open-ended section for mentors to reflect on such topics as the conference's perceived relative success, the student's progress and challenges, and potential strategies for future conferences.

Most mentors conducted an "intake interview" with each student during the first two weeks of class, to get to know students (and their approaches to writing), to help them establish personal contact, and to give mentors an initial context for interpreting students' performances on assignments. Mentors also received ongoing training in bi-weekly roundtables throughout the academic year with the initiative director and research assistant, during which mentors shared fieldnote observations from class, discussed scholarship on mentoring, or otherwise conferred about challenges and/or perceived successes. Mentors' job descriptions stipulated that they were to function uniquely as formative evaluators of students' work (i.e., they were never to assign grades), and that they should strive to function as an ally to students in succeeding in English 100. They were not to consciously undermine an instructor's authority, nor to find themselves allied with students against the instructor. If a student seemed to be seeking such an alliance, mentors were instructed to help the student find a way to talk directly with the instructor about any perceived problem, miscommunication, or disagreement—as on a paper's grade, for example. Mentors were also trained to recognize those issues that might emerge in conferences that were beyond their expertise and purview—as in the case of a student with a potential learning disability, for example, or a student in need of a counselor—and to

direct those cases to an appropriate office or to the initiative director or research assistant and to the course instructor.

Content in undergraduate composition courses—at this institution and across the U.S.—is frequently delivered under the "process paradigm," taking students through the full gamut of writing, from brainstorming to drafting to revising to editing. As part of this learning process, issues such as time management, technological challenges, local resources, etc., often became part of teaching and learning and were confirmed by mentors to surface regularly. In addition, mentors' logs from the previous year's pilot sections had revealed that tutoring on processes that might appear to be purely cognitive would sometimes lead to identifying issues that went beyond the cognitive. For instance, Bruland (2007) noted a situation where the mentor came to the understanding that a student's repetitiveness in an essay was related not to a cognitive misunderstanding of essay conventions but rather to the student's perceived inattention to her by the instructor or by class members. Analysts thus hypothesized that academic subject support provided by an embedded mentor might be closely linked to other kinds of support. In this context, data were collected to determine if the constructs identified by Nora and Crisp were present in students' perceptions of the "help" they received through this mentoring. Because all three analysts had also participated in the mentoring initiative—Jim Henry as an instructor, Holly Huff Bruland as a mentor and subsequently as instructor, and Jennifer Sano-Franchini as mentor—this research was deemed important not only as educational research in its own right but also as research on our own teaching and learning.

Research Methodology

Participants and Procedures

During the initial academic year of the initiative, approximately 1,500 students enrolled in 82 sections of first-year composition. Thirty-five of these sections were part of the Writing Mentors program. However, as this was the program's first official year, the program was not yet advertised in the university's course catalogue. Therefore, program participants were not part of a self-identified population with a proclivity toward seeking student support but rather happened into the mentored sections by luck of the administrative draw.

Participants in the Writing Mentors program included a Program Director and Graduate Research Assistant, 21 Masters-level and advanced undergraduate mentors, 33 instructors, and 663 undergraduate student mentees. The average mentor-to-student ratio was 19:1.

Of the 663 undergraduate mentees involved in the Writing Mentors program, 511 (77%) completed a formal end-of-semester program evaluation, and of those 511 students who completed evaluations, 404 were first-year students. As the initiative sought to examine the impact of mentoring on new members to a local culture (based on the aforementioned scholarship on mentoring, retention, and first-year students), these 404 first-year students who completed end-of-semester evaluations form this study's focus population.ⁱⁱ Of this focus population, 45% identified as male, 55% identified as female, and 18% identified as first-generation college students. Program participants reflected the larger university's range of ethnic diversity, which is reported in the university's student body profile: 48% Asian, 23% Caucasian, 14% Pacific Islander, 10% Mixed, 3% Hispanic, and 1% African American (University of Hawaii at Mānoa, 2008).ⁱⁱⁱ

Data Sources

At the end of each semester, students were asked to complete anonymous two-sided paper survey evaluations given in class, a copy of which appears as the Appendix. This survey asked students to indicate their year in school, enabling an analysis of first-year students only. It also asked students to indicate the number of times they had met with their mentor outside of class and to indicate from a 20-item checklist those topics they had addressed.^{iv} Students were asked to indicate on a 5-point Likert scale their satisfaction with their assigned mentor, their first-year composition course, and their overall first-year experience. In addition, the evaluation included three open-ended prompts for which students were asked to "provide as much detail as possible," as follows:

1. Please identify the various roles that your mentor played this semester, both in the course as a whole and in your experience as an individual student. Please give as many specific, detailed examples of your interactions with your mentor as you can remember.
2. In what ways did you find the mentoring program to be helpful?
3. In what ways could the mentoring program be improved?

Students' responses to these three open-ended prompts were inputted into a spreadsheet. Analysts then independently coded the responses to prompt #1 to analyze them as they informed the central research question: To what degree, if any, are the constructs identified by Nora and Crisp present? The second and third open-ended prompts to students on the evaluation had been intended primarily for program development, but as will be seen below, responses to it informed the analysis of mentoring constructs.

Coding Processes and Verification Strategies

The process of coding and analyzing the data was highly iterative, involving frequent in-process self-correction (Morse, Barrett, Mayan, Olson, & Spiers, 2002) and rigorous investigator triangulation (Golafshani, 2003; Johnson, 1997), as outlined below. To determine the presence, if any, of Nora and Crisp's four constructs, analysts first reviewed the definition of each as provided by Nora and Crisp:

Psychological/emotional support: encompasses a sense of listening, providing moral support, identifying problems and providing encouragement while the second facet focuses on the establishment of a supportive relationship in which there is mutual understanding and link between the student and the mentor.

Goal setting and career paths: represents the underlying notion that mentoring includes an assessment of the student's strengths/weaknesses and abilities and assistance with setting academic/career goals and decision making.

Academic subject knowledge support: centers on the acquisition of necessary skills and knowledge (Kram, 1988), on educating, evaluating, and challenging the mentee academically (Schockett & Haring-Hidore, 1985).

Role model: concentrates on the ability of the mentee to learn from the mentor's present and past actions and achievements/failures (p. 342-43).

Analysts next met to review students' end-of-semester responses to prompt #1, which, because it solicited students' characterizations of roles played by the mentor, yielded most insight on the presence or absence of Nora and Crisp's constructs. Reviewing these

constructs, analysts established criteria that should be met for any comment or portion of a comment to confirm the presence of the construct, as follows:

Psychological/emotional support: indications of an act or perceived quality on the part of a mentor that manifested in the psychological or affective realm to support the student

Goal setting and career paths: references to coaching by the mentor to set goals or commenting on goals for the course and/or beyond it; comments on having been referred to other campus entities (e.g., campus advisers) to help the student in setting goals or choosing a career

Academic subject knowledge support: reference to specific moments of support in acquiring the skills and knowledge of composition

Role model: reference to any in-class behavior by the mentor that modeled a student role for the mentee; references to the mentor's use of his or her own experiences while mentoring; comments on the mentor that cast him or her as a model

Analysts established a color code for each construct, then independently coded each of the 404 end-of-semester responses to this first prompt. Following guidelines for qualitative data analysis outlined by Miles and Huberman (1994), analysts used a "descriptive coding" method to analyze the data. According to Miles and Huberman, descriptive codes "entail little interpretation," but rather are "attributing a class of phenomena to a segment of text" (p. 57). In analyzing these data, some interpretation was necessary to be able to classify segments of text; analysts occasionally drew on responses to prompts #2 and 3 when a segment seemed ambiguous. To ensure investigator triangulation, the three analysts then met to compare their coding. If all three analysts did not agree on the coding of a comment, discussion ensued to determine whether the code was being inappropriately applied or whether the comment required too much interpretation to code reliably. If, after discussion, all three analysts did not agree on an interpretation, the segment was classified as "not codable." This category was also used for those comments that analysts agreed were ambiguous and therefore not conclusive enough to validate any of the constructs. Finally, coded segments were counted and clustered for the purposes of validating categories. When this process was complete, analysts tallied the total number of responses for each category before dividing this number by the number of respondents to see the frequency with which each construct occurred across the data set.

Results and Analysis

The results are depicted in Table 1, Frequency of Nora & Crisp's Constructs.

Table 1. Frequency of Nora & Crisp's Constructs

Nora & Crisp's Mentoring Construct	Raw Numbers	Frequency of Occurrence
Psychological/emotional support	170	42%

Goal setting and career paths	35	9%
Academic subject knowledge support	313	79%
Role model	42	10%
Not codable	46	11%

Below are examples illustrating each of the different constructs and exhibiting how analysis isolated the identification of constructs by mentees.

Coding the responses to this survey prompt revealed that most students referenced one of the constructs at least once (85%) and that a great deal of them (44%) referenced two or more of the constructs. As might be guessed from the percentages listed in Table 1, those responses that referenced two of the constructs most often blended commentary on academic subject knowledge support with commentary on psychological/emotional support, as in this example:

[My mentor] gives us help on grammar but also advice on how to make the paper the best it can be. She asks us how we're doing and is very friendly. [My mentor] talked to me while walking from our mentoring session to English 100.

Mentors had not been explicitly charged with advising students more generally on goal setting at the university or on career paths; however, academic subject knowledge support or psychological/emotional support at times blended with advice about succeeding at the university. These conversations about navigating the university occurred particularly among mentors who had either completed an undergraduate degree at the same university or who were otherwise quite familiar with the local culture:

We discussed both English & how my other classes were going. He gave me a few helpful tips when it came to school in general. [My mentor] definitely helped during the writing process.

Finally, as Table 1 shows, students identified a role being modeled 10% of the time, as in this example:

He did a good job. He played a facilitator's role in class discussion. It helped to have his perspective and years of experience in directing the students and the professor.

Discussion

Nora and Crisp first identified their four constructs through a literature review, then validated them using a questionnaire administered to a random sampling of 200 students independently of any specific mentoring initiative at the time they completed the questionnaire. Owing at least partly to this research design, the construct of "academic subject knowledge support" was confirmed at only a modest rate and with no reference to explicit tutoring in specific subjects (p. 348), as contrasted with the current study, in which

the rate of 79% for this category clearly derives from the fact that this mentoring was course-embedded and conceptualized to deliver subject matter knowledge. Undeniably, this course-embedded mode of mentoring was effective in fulfilling this construct.

The degree to which students in the current study identified the construct of psycho-social support (42%) confirms this construct as a strong one as observed by mentees. This result could be seen as a surprise in a context in which the mentees did not select their mentors but rather encountered pre-assigned mentors in the classroom. Moreover, although mentors were instructed to function as student "allies," their training did not involve any formal, explicit instruction in how to provide psycho-social support. Also contributing to this high rate, it can be hypothesized, is the nature of composition as an academic subject in the U.S. Because class sizes are relatively small (usually capped at twenty), faculty (and in this case, a mentor) get to know students on a first-name basis, interact with them via their writing, and respond to that writing both orally and in writing. In this process, they often engage students in the affective dimension. The high rate of psycho-social support indicated by students in their discursive comments is confirmed by the checklists they completed on the front side of the questionnaire. Across the 404 questionnaires, students checked "developing confidence as a writer and college student" in 200 cases (nearly 50%), "approaching instructor with concerns/questions/requests" in 150 cases (37%), "handling issues of college and personal life not directly related to the course" in 109 cases (27%), and "collaborating with classmates/addressing any peer-to-peer issues" in 71 cases (18%).

That only 9% to 10% of students' comments indicated the construct of goal setting and career paths also owes, at least in part, to the fact that such mentoring was not stressed explicitly as part of mentor training. The bulk of mentor training addressed coaching writers on hurdles commonly encountered in writing assignments and to a lesser degree on ways to function as a more experienced member of the academic community helping first-year students make this transition. Mentors' logs do mention the occasional referral of a student to campus advisors or to career counseling, but in many cases, mentors probably felt neither prepared nor qualified to offer advice on career paths or on goal setting beyond the classroom context. (Interestingly, 191 of the 404 students [nearly 50%] indicated a campus resource to which mentors alerted them, so that even if students did not qualify a mentor's help in ways that enabled clear-cut coding of their discursive commentary as signaling the construct of goal setting and career path, these referrals might have been functioning to some degree to help students clarify goals or career paths.) In any case, the rate of 10% confirms this construct was present, all the while signaling it as a construct possibly to be more actively promoted in course-embedded mentoring programs. In the case of the initiative under analysis, pre-semester workshops and roundtable discussions have since been modified to emphasize this construct, both to validate mentors' spontaneous forays into brief suggestions about goal setting beyond the course and to prompt such forays more systematically among mentors.

Nora and Crisp's analysis of students' questionnaire responses was unable to confirm the fourth construct—identification of a role model—and so it is encouraging that in the current study fully 10% of students' comments identified such a construct. It is particularly striking to see this construct surfacing when the mentors were predetermined rather than self-selected by mentees. In training sessions, mentors were reminded that they were to model classroom behavior for students (e.g., through focused note-taking, attentiveness, and active participation, when desired by an instructor), and students clearly noticed such behavior. Yet students' comments occasionally went beyond noting role modeling that could have seemed "staged" to indicate a modeling that related to them personally and that often was related to one of the other constructs, as in the following: "My mentor acted as a role

model and a person whom I seek for guidance and elaboration on comments or concerns I had for my writing."

Finally, a number of students' comments across the two semesters pointed to a component of the mentoring experience that went overlooked in Nora and Crisp's study. As the authors note, "it is possible components of the mentoring experience exist that have yet to be identified in the literature" (p. 351), and many of the students' responses to prompt #3 on the questionnaire pointed to their own predispositions as a mentee. In response to this prompt, which asked "In what ways could the mentoring initiative be improved?" students would occasionally focus their commentary back on themselves as mentees, as in this response: "more mandatory meetings to MAKE students go to extra help, since students like me are lazy =P." It could be hypothesized that a fifth latent construct is that of a willing and able mentee. Whereas the presence of a mentee is a self-evident necessity for mentoring, the degrees of engagement varied significantly in the current study, judging by mentors' conference logs. Those mentoring dyads that were deemed most successful by mentors (a judgment validated by the fact that students sought them out for as many as two or three times the number of average conferences among their peers) were clearly dependent upon mentee willingness and initiative, once the student her- or himself grew into the role of mentee. Consider the responses from one student, first to prompt #1: "I didn't really care for the meetings"; and then to prompt #3: "Students need to be taught to care."

This component of mentoring, unmentioned in the study by Nora and Crisp, was noted by Quinn et al. (2002). In their study, the authors discussed an issue where students failed to avail themselves of a specialist mentor in the natural sciences despite wide publicity and explicit invitations. The fact that this mentor was not embedded in the course could well account for the low rate of visits to the mentor in their study. After a discussion of limitations of the current study and avenues for possible future research, we provide recommendations for boosting the presence of all of these constructs in course-embedded mentoring in other content areas and other contexts.

Limitations

One of the strengths of this study—that it analyzes embedded mentoring in a first-year composition course—is also one of its limitations. It confirms Nora and Crisp's constructs in this particular content area, yet in other content areas, at other institutions, or under different mentor training, one would likely find different relative percentages of occurrence. Whereas Nora and Crisp's study was conducted in a two-year college, the current study in a four-year institution likely represents a different student profile in terms of academic backgrounds, career goals, and other elements that might impact mentoring. The current study also does not address issues of ethnicity or gender—of mentors and/or of mentored students—nor does it address a more subtle element of "local" vs. "out-of-state," a dynamic that has been often noted on this campus. Because students did not seek out or choose their own mentors, as has been the case in some other studies, the element of pre-determined matches limits this study's applicability to other settings in which mentor matches emerge spontaneously and/or independently of specific courses.

Grounding analysis in students' self-generated comments, though a rich source for this analysis and carefully triangulated among analysts, lacks the statistical factor provided in other studies such as that of Nora and Crisp that draw on multiple, previously established indices for analyzing responses to questionnaires. Yet this limitation also proved a strength at times in this study, as when students identified the construct of a role model that

analysis within these other frameworks was unable to confirm. Students' discursive comments also enabled the identification of what might be considered another domain or construct, mentee willingness, as noted above. Analysis that depends entirely upon data solicited exclusively to validate or invalidate existing categories, as in the case of Nora and Crisp's study, cannot provide such insights.

Finally, analysts noted limitations with regards to the data collection instrument: the structure of the data collection questionnaire, with its 20-item checklist of topics addressed on the first page, may have prompted students, consciously or unconsciously, to write more about psycho-social support and academic subject matter support in their discursive responses than on the other two constructs, given that the checkboxes on the previous page addressed the constructs of goal setting and career path guidance in only three cases and the construct of role modeling not at all. Had more checkboxes focused on these other two constructs, it could be hypothesized, students' discursive responses might have signaled the constructs more frequently. Likewise, student responses may have been different had there been no checkboxes listing topics addressed.^v

Recommendations for Further Research

More research is needed on mentors who are embedded in courses as unique agents in undergraduate performance. Neither instructor nor peer, these mentors represent a new actor in students' college experiences, enabling, perhaps, a more fluid meshing of academic subject support with the psycho-social support, goal setting, and guidance. Mentors can supply support that faculty, regardless of time availability or intentions, are unable to supply by virtue of their institutional status and their roles as summative evaluators. Data in the current study revealed numerous occasions when students actually preferred a mentor's conference to one with the instructor. Further research is needed to separate out any idiosyncratic reasons for such preferences, to identify systemic components of mentor agency in students' academic persistence.

Similarly, more research is needed on what has been termed a potential missing construct: how are students predisposed to mentoring, how do these predispositions shift over the course of mentoring, and is there a resultant attitude change that lends to behavior conducive to succeeding in and beyond a course? With such research should come studies that probe how race, ethnicity, gender, class, age, and other variables might inflect the mentoring experience and students' possible enhanced performance as a part of it. One example of such a study is Crisp and Cruz's (2010) research, which confirmed the presence of the mentoring constructs, based on the College Student Mentoring Scale, at a Hispanic Serving Institution while also comparing how different groups of students—based on gender, race, and year in college—experienced mentoring. Alongside such studies focusing on mentees should come more research on the operations of embedded mentoring in specific institutional contexts. For instance, other data from the initiative in the current study have shown that as a commuter campus, the current institution may face a particular set of limitations to fostering the kinds of social support that Tinto (1993) described as essential for student success. Tinto's model of academic persistence situates student persistence as part of mutually-informing "academic" and "social" systems. These social systems, in his model, are constituted "largely outside the formal academic domain of the college . . . in the residence halls, cafeteria, hallways and other meeting places of the college" (1993, pp. 106-07). For students who are primarily commuters and/or otherwise not frequenting these venues, course-embedded mentors could constitute a significant

component of another kind of social system that can in fact originate in the academic system rather than parallel it.

In relation to programmatic assessment, more research is needed to correlate course-based mentoring with enhanced student performance. In the current mentoring initiative, student writing samples from sections that were mentored and sections that were not mentored were assessed by a team of evaluators led by the campus assessment office across a number of dimensions. The assessment was conducted after the second semester of the initiative, using writing samples from that semester alone and assessing them for success in writing for a specific purpose and for an identifiable audience. (At this early point in the program's development, mentored sections were not yet listed in the course catalogue, rendering the writing assessment a true control group study with both groups also having nearly identical entering standardized test scores.) Samples were scored and assigned to four categories: "not prepared" (for more advanced writing), "partially prepared," "prepared," and "well-prepared." Those samples taken from mentored sections outpaced those from non-mentored sections in the category of "prepared" (80% vs. 72%), and "well-prepared" (5% vs. 0%). In addition, students submitted a reflective essay on their writing sample, and those samples were assigned to the categories of "superficial/cursory," "somewhat superficial/somewhat cursory," "somewhat specific/complex," and "specific/complex." Once again, samples from the mentored sections outnumbered those from the non-mentored sections for the categories of "somewhat specific/complex" (56% vs. 33%) and "specific/complex" (8% vs. 5%) (University of Hawaii at Mānoa, 2009). This second assessment seems particularly promising as an indicator of students' enhanced meta-cognitive skills, which have been validated as an important component of learning (Askell-Williams, Lawson, & Murray-Harvey, 2007; Chaplin, 2007; Chick, Karis, & Kernahan, 2009; Young & Fry, 2008).

Finally, more research is needed on embedded mentoring in first-year courses in other content areas and using other models of peer mentorship and supplemental instruction, to see whether the constructs identified by Nora and Crisp and validated here also occur, and to probe more fully the dimensions of mentoring as part of course delivery. As noted earlier, Nora and Crisp have urged studies of the "what" and "how" of mentoring (2008, p. 340). Elsewhere Henry and Bruland have examined the "what" and "how" inside the mentoring black box from mentors' perspectives (Henry, Bruland, & Omizo, 2008; Henry & Bruland, forthcoming). While the current study begins to elucidate the "what" and "how" from students' perspectives with respect to these four specific constructs, further questions become apparent: Would more explicitly addressing the components of goal setting and career paths during mentor training enable mentoring that results in higher rates of mentee identification of this construct?

Recommendations for Course-Embedded Mentoring in Other Contexts

For instructors in content areas other than composition who are interested in attempting course-based mentoring, infrastructure is clearly important. More experienced students—whether undergraduates or graduates—must be recruited and trained. Such efforts require budget support from administrators, which can be tight in the current global financial scenario, as noted by Quinn et al. (2002). Yet such infrastructure can yield benefits in multiple dimensions. As noted above, course-embedded mentoring may contribute to an institution's retention efforts, thus indicating to central administration that a particular unit is supporting the college or university in ways that go beyond course delivery and research. In an age when many institutions are paying outside agents to support efforts in retention

(Hoover, 2011), educators across the disciplines who integrate mentors into courses might offer a counter-possibility to central administration that both makes use of local "resources" and renders those resources richer in the process. Elsewhere, Henry and Bruland have demonstrated that the experience as course-embedded mentors has rendered mentors astute in simultaneously viewing the course through instructors' and students' eyes, endowing them with a reflexivity that can prove valuable in subsequent teaching and mentoring pursuits (forthcoming). This perspective may be coupled with the positioning of mentors as researchers in their own rights: to date, eleven mentors have had proposals accepted and subsequently presented at their college's annual peer-reviewed graduate conference, affording them professional experience that helps pave the way for full-time teaching or for further graduate studies. At last count, thirteen of thirty-one mentors have gone on to full-time teaching positions, and ten of thirty-one have gone on to PhD studies, including Jennifer Sano-Franchini, who credits the mentoring initiative for her first experiences engaging with the nuances of collaborative, empirical field research in her current field of study.

As noted in the Background section, current teaching practices for composition in the U.S. emphasize teaching course content as a process. This approach proved serendipitous when it came to integrating mentors into classrooms, because teaching course content following the process approach opens up learning processes for inspection. Such an approach affords mentors the possibility to coach students while they are in the throes of learning and before summative evaluation. In content areas where processes of performance and learning are not usually a focus, course-embedded mentoring offers an opportunity to enhance teaching techniques by bringing process into pedagogy. Mentors can coach students through learning processes, attending to matters that faculty might not have the time for at the individual learner level. In fact, the literature review opening this article included Roberts' "Mentoring Revisited: A Phenomenological Reading of the Literature," which lists the following "essential attributes" of mentoring: "1. a process form; 2. an active relationship; 3. a helping process; 4. a teaching-learning process; 5. reflective practice; 6. a career and personal development process; 7. a formalized process; and 8. a role constructed by or for a mentor" (2000, p. 151). While these attributes are less helpful than those identified by Nora and Crisp for the purpose of evaluating the degree to which this course-embedded version of mentoring lived up to standards from the scholarship, they are nonetheless helpful for educators who want to embark on course-embedded mentoring in other content areas.

Finally, if course-embedded mentoring is to be established as a "formalized process," institutions must account for the infrastructure needed for success. Based on our own experiences as administrators of this course-embedded mentoring initiative, as researchers who have evaluated it for the essential constructs noted by Nora and Crisp, and as instructors and mentors in the initiative ourselves, we have elaborated Table 2, *Implementing Course-Embedded Mentoring, Best Practices and Pitfalls*, as a support document for teaching and learning practitioners in other contexts.^{vi}

Table 2. Implementing Course-Embedded Mentoring, Best Practices and Pitfalls

Actors	Best Practices	Pitfalls
Administrators	<ul style="list-style-type: none"> • Establish clear expectations for all parties and make them part of workshops, roundtables, & data collection • Publish and disseminate formal job descriptions • Document and report vertically and horizontally • Analyze and publish • Learn the institution & publicize its resources; if possible, establish a public web presence with resources • Join campus committees that can further your initiative 	<ul style="list-style-type: none"> • Reacting to seeming transgressions (Triangulate accounts from various parties!) • Falling behind on data collection • Failing to keep everyone in the loop • Losing sight of the big picture; failing to disseminate the program's success beyond the local unit
Instructional Faculty	<ul style="list-style-type: none"> • Represent the mentor strongly on course materials • Establish a rubric for each assignment • Require or heavily reward conference attendance • Prompt students to become active mentees • Require an intake interview • Collaborate with the mentor in planning opportune times for conferences • Meet regularly with mentor to confirm mutual understandings of performances and expectations • Tap the mentors' growing knowledge re/ lessons that students aren't mastering 	<ul style="list-style-type: none"> • Failing to emphasize the mentor's integrity to course • Failing to establish a rubric or to provide the mentor with examples of exemplary performances to guide coaching of mentees • Lapsing in discussing ongoing performances and performance expectations
Mentors	& Administrators	
	<ul style="list-style-type: none"> • Document all meetings & keep documentation current • Adhere strictly to job description 	<ul style="list-style-type: none"> • Failing to maintain documentation • Deviating from job description

Mentors	<p>& Instructional Faculty</p> <ul style="list-style-type: none"> • Keep instructor in the loop • Schedule regular meetings with instructor • Adhere strictly to job description • When in doubt, ask! 	<ul style="list-style-type: none"> • Failing to keep instructor apprised of noteworthy developments • Deviating from job description • Deviating from agreed upon kinds of performance in the classroom • Undermining the instructor's authority
Mentors	<p>& Students</p> <p>Psychological/Emotional Support</p> <ul style="list-style-type: none"> • Conduct intake interviews • Strive to stoke willingness on the part of mentees • Focus on professional, supportive actions • Know limits & reporting paths • Follow through on commitments • Familiarize yourself with campus resources 	<p>Psychological/Emotional Support</p> <ul style="list-style-type: none"> • Taking sides against grade or instructor • Neglecting to refer cases beyond one's expertise & purview to appropriate parties • Prompting dependence
	<p>Goal Setting & Career Paths</p> <ul style="list-style-type: none"> • Take stock of weaknesses & strengths, collaboratively • Monitor progress and report back to the mentee • Speak from personal experience when faced with similar tasks • Familiarize yourself with campus resources 	<p>Goal Setting & Career Paths</p> <ul style="list-style-type: none"> • Overreaching your knowledge—refer to advisers • Over-generalizing from your experience to the mentee's • Setting unattainable goals or setting up false expectations
	<p>Academic Subject Matter Support</p> <ul style="list-style-type: none"> • Confirm expectations for each assignment with the instructor (rubrics!) • Brush up on likely skills & knowledge necessary for each assignment • Locate online or print support materials to share • Drill down to the processes undergirding each learner's performance, then help the learner adjust them 	<p>Academic Subject Matter Support</p> <ul style="list-style-type: none"> • Assuming there's only one way to get to the right answer or performance • Accepting a student's self-deprecation in the content area • Assuming subject matter knowledge that the student might not yet have • Talking too much and not listening enough

	Role Modeling <ul style="list-style-type: none"> • Arrive early to class and leave late • Demonstrate note-taking and discussion interest • Act like an experienced guide to college 	Role Modeling <ul style="list-style-type: none"> • Setting a poor example in class • Expecting your roles to be the only way to perform
	Learning Processes <ul style="list-style-type: none"> • "Theorize" each learner and each learning occasion: What might be impeding? How might you help? • Position the student as co-investigator of these processes 	Learning Processes <ul style="list-style-type: none"> • Jumping to conclusions • Telling rather than showing • Directing rather than collaborating

Conclusions

Nora and Crisp's four mentoring constructs have previously been confirmed by studies of students at a two-year college (Nora & Crisp, 2008) and students at a Hispanic Serving Institution (Crisp & Cruz, 2010). In these studies, the students surveyed were asked to choose a mentor in their lives either within or beyond the institution, whereas the present study asked students to consider the single mentor that had come pre-assigned with a required academic course. The present study indicates that the range of constructs identified as critical in the literature on mentoring can indeed be fulfilled through a course-embedded mentoring design. This study also uncovered a construct previously unidentified: mentee willingness. To be successful in delivering all of these constructs, course-embedded mentoring requires rigorous preparation, theorization, infrastructure, and documentation—all of which are practices that can open the way for mentors, instructors, and administrators alike to participate in the Scholarship of Teaching and Learning. In the end, course-embedded mentoring can yield benefits to all actors involved, and to those actors' departments, colleges, and universities.

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Appendix: English 100 Mentoring Program End-of Semester Survey

Explanation: The purposes of this survey are two-fold: 1) to evaluate each individual classroom mentor specifically; and 2) to assess the English Department's mentoring program as a whole. Your honest, thoughtful feedback will provide meaningful information to your mentor and help us to improve the mentoring program for future students. All completed evaluations should be returned to one student in the class. The student will then turn in the forms to the English department's main office at Kuykendall 402. Your mentor and instructor will be allowed to read these evaluations only after final grades for the class have been submitted.

- 1) Please list your mentor's name: _____
- 2) What is your year in school? Fr. Soph. Jr. Sr. Other: please specify _____
- 3) Did either of your parents attend college? No Yes
- 4) Please identify your gender: Female Male
- 5) Approximately how many total times did you meet with your mentor outside of class? _____
- 6) In what stages of the writing process did your mentor work with you? Please check all boxes that apply.
 At the Beginning In the Middle Near the End After a paper's initial grade
- 7) What topics did you and your mentor discuss in conferences? Please check all that apply.
 Preparing for writing conferences (with the mentor or the instructor)
 Understanding the assignment's requirements
 Choosing (or modifying) a topic
 Generating ideas for the paper's content
 Finding outside sources
 Incorporating outside sources into a piece of writing
 Clarifying the paper's purpose and/or audience
 Organizing the paper more effectively (including transitions)
 Honing grammar, usage, and style

- Collaborating with classmates (addressing any peer-to-peer issues)
- Approaching the instructor with concerns, questions, requests
- Applying the instructor's comments for revision
- Developing confidence as a writer and college student
- Upholding class and/or university policies and expectations
- Understanding material that was covered in class
- Utilizing technology and/or university resources (i.e.: library, websites, student health...)
- Acquiring skills in time management and personal organization
- Handling issues of college and personal life not directly related to the course
- Other(s): please specify _____

8) Did your mentor help you to connect with any campus resources? Yes No
(i.e.: library, search engines, websites, departments, career counseling, first-year student advising, student health...) If yes, please list the resource(s): _____

9) Overall, how would you rank your level of satisfaction with your mentor?

very unsatisfied unsatisfied neutral satisfied very satisfied

10) Overall, how would you rank your level of satisfaction with your experience in English 100?

very unsatisfied unsatisfied neutral satisfied very satisfied

11) Overall, how would you rank your level of satisfaction with the first-year experience at UHM?

very unsatisfied unsatisfied neutral satisfied very satisfied

12) How did the quality of your learning experience in English 100 compare with the quality of your learning experience in your other courses?

English 100 was significantly worse English 100 was worse English 100 was about the same English 100 was better English 100 was significantly better

13) In your own words, please identify the various roles that your mentor played this semester, both in the course as a whole and in your experience as an individual student. Please give as many specific, detailed examples of your interactions with your mentor as you can remember.

14) In what ways did you find the mentoring program to be helpful?

15) In what ways could the mentoring program be improved?

16) Do we have your permission to quote anonymously from your free responses in reports and publications representing the mentoring program? Yes No

Footnotes

ⁱ This research was reviewed and approved by the university's Institutional Review Board. All students cited have given their permission.

ⁱⁱ The course itself was transitioning from one in which, despite its designation as being the "foundation of written communication," registration had never been restricted, and some students enrolled as late as their senior year.

ⁱⁱⁱ Note that these numbers are based on global numbers for the university and not on self-identified ethnicity by student participants.

^{iv} This checklist had been developed from a pilot initiative the year before and corresponded to the checklist portion of mentors' logs for individual conferences.

^v Despite these limitations, the program developers decided to include this list of topics in order to solicit more generative feedback from students and to mirror mentors' documentation of the mentoring. The inclusion of a checklist like this was considered helpful for giving students the language to more deeply consider and discuss their experiences via this evaluative instrument.

^{vi} To develop this table, we first reviewed notes from the bi-weekly roundtables with mentors. Because these roundtables were often structured as troubleshooting sessions, we found the notes from these meetings helpful when planning subsequent pre-semester orientations and workshops. Upon reviewing these notes for common themes enabling categorization, "best practices" and "pitfalls" emerged immediately. Once these categories were in place, we identified key institutional actors and reviewed administrative notes, e-mails, and memos associated with them. Two of us had functioned as administrators, so we were able to further reflect on these experiences for constructing the sections on administrators. Two of us had also functioned as instructional faculty and so we knew from that perspective the importance (and rewards) of such steps as representing the mentor strongly in syllabi and course materials, using rubrics for each assignment, and tying students' performance evaluations to time spent with mentors. In addition to reviewing our own syllabi and lesson plans to elaborate these cells, we reviewed notes from focus groups with faculty. Finally, two of us had also functioned as mentors, and we reviewed conference logs and fieldnotes from class sessions to add details for each of Nora and Crisp's constructs.