REMEDIATION BEYOND DEVELOPMENTAL EDUCATION: THE USE OF LEARNING ASSISTANCE CENTERS TO INCREASE ACADEMIC PREPAREDNESS IN COMMUNITY COLLEGES

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A qualitative case study in 15 community colleges across the country found that learning assistance centers and specialized skills labs are an important means of increasing students’ academic preparedness for postsecondary study. Since these facilities provide instruction or support in reading, writing, and math skills, it appears that they play a valuable remedial role. Most of the assistance occurs in the form of tutoring and computer-assisted instruction, and some of the centers also provide specialized learning workshops and self-paced remedial courses. The majority of colleges have several learning centers and labs, and duplication of services may explain the lower than expected demand for assistance services seen in some of the sites. However, the institutions consider the learning centers to be effective, and report positive outcomes including retention in college English and increase in GPA. Because, in some cases, recipients of learning assistance services display severe learning difficulties, tutors may benefit from professional development in instructional strategies for special-needs students. It is recommended that future research compare the effectiveness of learning assistance services and developmental education courses in boosting students’ basic academic skills.

Community colleges’ commitment to open access brings with it the challenge of educating a heterogeneous population (Maxwell et al., 2003). Among this population are students whose academic history and personal lives have not prepared them for the reading, writing, or...
math demands of postsecondary study. Over the years, providing remediation\(^1\) to prepare students for college-level work has become an important community college mission (Howard & Obetz, 1996; Raftery & VanWagoner, 2002). The most visible form of remediation is developmental education (Boylan, Bliss, & Bonham, 1997; Foote, 1999; Johnson, 1996; McCabe & Day, 1998; Roueche & Roueche, 1999), at the heart of which are sequences of reading, writing, and math courses. However, institutions may not require academically underprepared students to enroll in these courses (Jenkins & Boswell, 2002; Shults, 2000). Even when enrollment is mandated, developmental education is not always effective (Burley, Butner, & Cejda, 2001; Crowe, 1998; Grubb et al., 1999; Perin & Charron, forthcoming).\(^2\)

Although remedial and introductory college-level English and math courses are intended to prepare students for the academic demands of postsecondary content-area learning, only one-quarter or less of first-time community college students enroll in these courses (Maxwell et al., 2003). Consequently, the issue of academic preparedness extends beyond developmental education and may affect a significant portion of the college degree program as underprepared students enroll in college-credit courses. Besides developmental education, classroom approaches to academic difficulty include “hidden remediation” (Grubb et al., 1999) and writing across the curriculum (Lester et al., 2003). Another alternative, outside of the classroom, is the use of learning assistance centers.

Most community colleges have learning assistance centers designed to support students’ learning in developmental education and college-credit courses. Learning assistance services include academic tutoring, computer-assisted learning, assessment, advisement, and counseling, for example, as listed by Stern (2001). In their scope and variety of services, college learning centers conform to one of O’Banion’s (1997) six principles of the ideal “learning college,” the availability of a variety of learning options.

A main function of academic support centers is to help students develop efficient learning processes, an especially important function in light of instructors’ observations of academic difficulties that impede content learning in college-level courses (Grubb et al., 1999; Perin & Charron, forthcoming). The focus of learning assistance centers is compatible with that of developmental education, construed as

\(^1\)Although the terms “remediation” and “developmental education” imply different philosophies of instruction, they are used interchangeably in this paper.

\(^2\)Fictitious names are used throughout this report to protect anonymity of sites, learning centers within sites, and personnel.
remedial courses and ancillary advisement and counseling designed to improve college-readiness (Boylan, 2002; Casazza, 1999). In fact, colleges sometimes house their developmental education courses in the learning center (Roueche, Ely, & Rovecha, 2001). Further, many developmental education courses have a required tutoring or lab component which may be undertaken in a college learning center (Boylan, 2002). However, the aims of developmental education and learning assistance centers do not overlap completely because the former is intended for students with identified reading, writing, or math weaknesses, and the latter is available to the college student body at large.

Typically, all the services of a college learning center are free and available to all enrolled students, who may be self-referred, sent by course instructors because they are displaying academic difficulty, or fulfilling a developmental education lab requirement.

Tutoring in learning assistance centers is provided by professional or peer tutors to individual students or groups who work at their own pace (Koski & Levin, 1998). When the tutoring is provided to support a college-level discipline course, help with reading, writing, or math skills is a means to the end of completing a subject-matter assignment. In this case, basic academic skills can be learned implicitly through exposure and practice. In contrast, the tutoring provided to support developmental education course work provides explicit instruction designed to strengthen specific literacy or math skills.

Despite the strong presence of learning centers in community colleges, there is little research into the ways in which they aid in the enhancement of the academic skills of either developmental education or college-credit students. The study reported in this paper explored the services of community college learning centers in order to learn more about their remedial function.3 This investigation was part of the National Field Study of the Community College Research Center at Teachers College, Columbia University, a multi-topic case study of current issues in a national sample of 15 community colleges. The current research asked whether and how remedial functions were served by learning assistance centers4 at the study sites, and what issues arose in the use of this instructional format.

3The study also investigated state and institutional policies for assessment and remedial placement, and the nature of developmental education in the study sites. The findings are reported in Perin (forthcoming); and Perin & Charron (forthcoming).

4Many of the sites also had learning resource centers from which students could borrow ancillary materials to support course work. Learning resource centers are different from learning assistance centers, and are beyond the scope of the current study.
METHOD

Participants

The 15 sites were located in six states, Washington, California, Texas, Illinois, Florida, and New York, selected because they had large, well-developed community college systems. Four of the states together accounted for approximately half of the national community college enrollments. Within each state, sites were selected based on urbanicity, size, and willingness to participate. The sample consisted of five urban, five suburban, one mixed (urban and suburban), and four rural community colleges, with enrollments ranging from 1,854 to 28,862 students. Minority participation ranged from 5–96%. College information is listed in Table 1; the (fictitious) names indicate urbanicity.

Data Collection and Analysis

This is a qualitative, instrumental case study (Stake, 1995) that aimed to understand ways in which learning assistance centers help increase academic preparedness. The methods of data collection and interpretation were based on Merriam (1988), Miles and Huberman (1994), Patton (1990), Stake (1995), and Yin (1994). The study was approved by the Institutional Review Board at Teachers College, Columbia University, and participants provided signed consent in advance of the data collection.

Each site was visited by a research team consisting of at least two senior researchers and three research assistants. The current author participated in several of the visits. Interviews were based on a protocol covering all of the topics being investigated in this multi-topic case study. The questions pertaining to the current study reflected issues discussed in previous research on academic preparedness and remediation including Boylan et al. (1997), Grubb et al. (1999), Jenkins and Boswell (2002), McCabe and Day (1998), and Roueche and Roueche (1999). A total of 630 people participated, individually or in groups, in 458 interviews that lasted approximately one hour each. Each interview was recorded and transcribed. The interview transcripts were the major source of data for this study, and were supplemented by college documents such as course catalogs and institutional reports, as well as examples of instructional materials furnished by the colleges.

Sixty-three percent (n = 290) of the 458 interview transcripts were selected for coding for this study based on a word search using 20 different terms relating to academic preparedness and developmental education. The transcripts were coded by the author and two
<table>
<thead>
<tr>
<th>College</th>
<th>State</th>
<th>Fall 2000 enrollment</th>
<th>Minority participation</th>
<th>Learning centers and labs</th>
<th>Services offered</th>
<th>Students served</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest Suburban CC (NWSCC)</td>
<td>WA</td>
<td>11,234</td>
<td>30%</td>
<td>Learning center; separate reading, writing, and math labs</td>
<td>Computer-assisted instruction, tutoring</td>
<td>Both developmental education (reading) and college-credit students</td>
</tr>
<tr>
<td>Northwest Rural CC (NWRCC)</td>
<td>WA</td>
<td>1,854</td>
<td>25%</td>
<td>Learning center, writing lab, math-science lab</td>
<td>Tutoring, study skills workshops, computer-assisted instruction, study groups, special test-taking conditions</td>
<td>Both developmental education and college-credit students</td>
</tr>
<tr>
<td>Western Urban CC (WUCC)</td>
<td>CA</td>
<td>14,406</td>
<td>61%</td>
<td>3 learning centers: content-area; reading, writing, critical thinking; math center</td>
<td>Tutoring, self-paced math courses</td>
<td>Both developmental education and college-credit students</td>
</tr>
<tr>
<td>Western Suburban CC (WSCC)</td>
<td>CA</td>
<td>13,233</td>
<td>35%</td>
<td>Learning center, lab for nursing students planned</td>
<td>Short courses in academic skills, computer-assisted instruction; portion of math courses taught learning center; tutors assist in subject-area classrooms; coordination of supplemental learning</td>
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<tr>
<td>College</td>
<td>State</td>
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<tr>
<td>Western Rural CC (WRCC)</td>
<td>CA</td>
<td>4,344</td>
<td>59%</td>
<td>Learning center</td>
<td>Tutoring to support work in any course</td>
<td>Both developmental education and college-credit students</td>
</tr>
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<td>Southwest Urban CC (SWUCC)</td>
<td>TX</td>
<td>25,735</td>
<td>35%</td>
<td>Learning center</td>
<td>Tutoring in academic skills, science, foreign languages</td>
<td>75% college-credit students; 25% developmental education (required lab component)</td>
</tr>
<tr>
<td>Southwest Suburban CC (SWSCC)</td>
<td>TX</td>
<td>12,996</td>
<td>25%</td>
<td>Learning center, math lab</td>
<td>Tutoring in academic skills, and subject areas</td>
<td>Both developmental education and college-credit students</td>
</tr>
<tr>
<td>Midwest Urban CC (MWUCC)</td>
<td>IL</td>
<td>8,147</td>
<td>81%</td>
<td>Learning center, tutoring in math department</td>
<td>Tutoring in academic skills and subject areas; specialized workshops in academic skills</td>
<td>Both developmental education and college-credit students</td>
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<tr>
<td>Midwest Suburban CC (MWSCC)</td>
<td>IL</td>
<td>28,862</td>
<td>27%</td>
<td>General tutoring center, writing and math labs, specialized skill centers</td>
<td>Tutoring in academic skills and subject areas; self-paced computer assisted courses and tutoring in specialized centers</td>
<td>Both developmental education and college-credit students</td>
</tr>
<tr>
<td>Midwest Rural CC (MWRCC)</td>
<td>IL</td>
<td>7,675</td>
<td>10%</td>
<td>Learning center, math center, career assistance center; writing center planned</td>
<td>Tutoring in academic skills and subject matter, computer-assisted instruction</td>
<td>Both developmental education and college-credit students</td>
</tr>
<tr>
<td>Institution</td>
<td>State</td>
<td>Enrollment</td>
<td>Tutoring Coverage</td>
<td>Services Provided</td>
<td>Student Eligibilities</td>
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<tr>
<td>Southern Urban CC (SUCC)</td>
<td>FL</td>
<td>27,565</td>
<td>42%</td>
<td>Learning, writing, and math centers on each campus</td>
<td>Both developmental education (required lab component) and college-credit students</td>
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<tr>
<td>Southern Mixed CC (SMCC)</td>
<td>FL</td>
<td>13,186</td>
<td>20%</td>
<td>Several learning centers on each campus</td>
<td>Both developmental education and college-credit students</td>
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</tr>
<tr>
<td>Northeast Urban CC (NEUCC)</td>
<td>NY</td>
<td>6,928</td>
<td>96%</td>
<td>Writing lab, learning center for disadvantaged students, discipline-specific tutoring in departments</td>
<td>Both developmental education and college-credit students</td>
<td></td>
</tr>
<tr>
<td>Northeast Suburban CC (NESCC)</td>
<td>NY</td>
<td>9,304</td>
<td>12%</td>
<td>Central learning center and several smaller specialized centers</td>
<td>Both developmental education and college-credit students</td>
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</tr>
<tr>
<td>Northeast Rural CC (NERCC)</td>
<td>NY</td>
<td>4,521</td>
<td>5%</td>
<td>Learning center on main campus</td>
<td>Both developmental education and college-credit students, especially older, returning adults</td>
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</tbody>
</table>
research assistants using QSR-Nud*Ist version N5 software (www.qsrinternational.com). (Codes available from author.)

FINDINGS

All of the colleges in the sample contained at least one learning assistance center, as shown in Table 1 and described in the following vignettes. Table 2 summarizes the functions and operation of the learning centers across sites.

Northwest Suburban Community College (NWSCC)

The main service provided by NWSCC’s learning assistance center was computer-assisted instruction. In Fall 2000, 7,480 visits were made for reading assistance, 3,800 for writing, and 4,000 for math. Services were available for all enrolled students. Reading assistance was sought mainly by developmental education students (95% of visits), while 65% of the writing visits and 45% of the math visits were made by college-credit students. The college also had specialized reading, writing, and math labs in which students could enroll for a one-credit series of tutoring sessions in discipline-specific literacy or math skills. For example, tutors in the writing lab helped students with papers assigned in subject-matter courses:

If you need help on essays you can go and get their help on grammar. They’ll correct your essays and go over it with you and explain the rules of English (Student, NWSCC).

The math lab was open seven days per week, with two tutors always present. Assistance was provided at all math levels but most of the demand was for pre-calculus. Most of the remedial math students used the lab, which was described as having “a very warm and relaxed atmosphere.” A student described it as “our second home, basically.”

Northwest Rural Community College (NWRCC)

At NWRCC, a learning center and a writing lab provided individualized tutoring and study skills workshops. Personnel at the writing lab assisted students with assignments in a range of disciplines:

We don’t proofread it for them. We sit down with them. And we consider that we do more instructing, you know, with the student. Oftentimes, the student will read the paper out loud to the tutor and they’ll discuss the kinds of mistakes that, you know, that they’re going through . . . Even [an
### TABLE 2 Summary of Function and Operation of Learning Assistance Centers

<table>
<thead>
<tr>
<th>Overview of services</th>
<th>Details and issues</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHARACTERISTICS OF FACILITIES</strong></td>
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<tr>
<td>• Learning centers serve both college-credit and developmental education students; tutoring or computer-assisted instruction in reading, writing, math, and academic subjects, including foreign languages, also study skills, writing skills, and conversation workshops, some specialized for subject-area; staff are professional tutors, college instructors, and/or peer tutors: all sites</td>
<td>• One or more learning centers, and specialized learning labs: NWSCC, NWRCC, WUCC, SWSCC, MWSCC, MWRCC, NESCC</td>
</tr>
<tr>
<td>• One or more learning centers, and specialized learning labs: NWSCC, NWRCC, WUCC, SWSCC, MWSCC, MWRCC, NESCC</td>
<td>• Centralized writing lab; learning center limited to designated population; and discipline-specific tutoring in academic departments: NEUCC</td>
</tr>
<tr>
<td>• Centralized writing lab; learning center limited to designated population; and discipline-specific tutoring in academic departments: NEUCC</td>
<td>• One or more tutoring centers on each campus of a multi-campus college: SUCC, SMCC</td>
</tr>
<tr>
<td>• One or more tutoring centers on each campus of a multi-campus college: SUCC, SMCC</td>
<td>• Single learning center: WSCC, WRCC, SWUCC</td>
</tr>
<tr>
<td>• Single learning center on main campus, no services at satellite sites: NERCC</td>
<td>• Single learning center, some tutoring available in math department: MWUCC</td>
</tr>
</tbody>
</table>

| **NATURE OF SERVICES** | |
| • College-wide supplementary learning initiative directed by learning center staff: WUCC | • Tutors help students with assignments from college-credit courses: NWSCC, NWRCC, NEUCC, NESCC, MWUCC, SWUCC |
| • Specialized reading, writing and/or math labs provide tutoring, study groups and services for students with disabilities; labs may be autonomous, connected to department, or part of college learning center: NWSCC, NWRCC, WSCC, SWUCC, SWSCC | • Tutors help with developmental education assignments: SWUCC, NESCC |
| • Retention rate in college English improves as result of help in writing lab: NEUCC | • Self-paced remedial math course offered through learning center: NWSCC |

(Continued)
<table>
<thead>
<tr>
<th>Overview of services</th>
<th>Details and issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning center offers short-duration remedial courses: WUCC</td>
<td></td>
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<tr>
<td>Individualized, short-duration courses to be eliminated because considered unproductive, to be replaced by peer tutoring and student study groups; strong student preference for tutoring over computer-assisted learning: WSCC</td>
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<tr>
<td>Specialized skills lab for nursing students: WSCC</td>
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<tr>
<td>Tutoring counted as a counseling service: NERCC</td>
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</tbody>
</table>

**SOURCE OF REFERRAL**

- Students referred by developmental and/or college course instructors, or self-referred: NWSCC, NWRCC, WUCC, WSCC
- Tutoring and computer-assisted learning required by developmental education provided in learning center or specialized lab: SUCC, SMCC
- Learning center services only at request of student, no connection to developmental education: WRCC

**POPULATION SERVED**

- 75% of learning center visits by college-credit students, 25% by developmental education students: SWUCC
- Reading services sought mainly by developmental education students, can take one-credit option: NWSCC
- Multiple centers with different purposes and services, may be funded to serve different populations: MWSCC, MWRCC, NEUCC, NESCC
- Many users foreign-born, some have learning disabilities but tutors do not have special training: MWUCC
FUNDING AND DEMAND

- Funding for learning centers not secure: WUCC
- Large demand for learning center services: MWRCC, NEUCC
- Highest demand for reading assistance for developmental education students: NWSCC
- Highest demand for reading assistance for college-credit students: SWUCC
- Highest demand for math: SWSCC, NESCC
- Under-utilized, decrease in demand and/or increase in need for recruitment: WSCC, MWSCC, NESCC, NERCC, WSCC, SWSCC (learning disabled students)

SCHEDULING AND CREDIT

- 24 hours of tutoring in learning center in one semester bears .5 credit: WSCC
- Learning centers and/or skills labs open most days, long hours, may allow walk-in appointments: NWSCC, WUCC, SWUCC
- Every student entitled to 16 hours of tutoring in learning center per semester

CONNECTION TO LEARNING RESOURCE CENTERS

- Resource center and learning center combined: SMCC
- Resource center staff refer students to writing lab: NEUCC
instructor], who has all in-class essays, when... when he hands [his first essay] back to the students, he'll... pinpoint people and say... "You've got to get into the English lab and do some practice essays." In fact, he'll bring people... We have people that bring in research papers from other classes... social sciences, whatever. We have music students running papers past us. We have art students running their research papers past us (Administrator, NWRCC).

NWRCC also had a math-science lab that offers computer-assisted instruction, tutoring, study groups, and customized test-taking conditions for students with special learning needs.

**Western Urban Community College (WUCC)**

There were three learning centers at WUCC: one offered tutoring by professional tutors and instructors in most content-area subjects, a second provided peer tutoring in reading, writing, and critical thinking, and the third was a math center open 60 hours per week for both tutoring and self-paced, open-entry, open-exit developmental math courses. The self-paced courses were a highly popular alternative to the traditional developmental math courses also available. The math center was supported by a patchwork of funding and its existence was not secure.

**Western Suburban Community College (WSCC)**

WSCC’s learning center offered half-credit, short-duration courses in basic academic skills, as well as tutoring and computer-assisted instruction. In addition to the learning assistance center, the nursing program had plans to use grant funds to hire a nurse to run a separate, nursing-specific skills lab for at-risk students. Students were both referred to the learning assistance center by faculty, or self-referred:

Most students know what they want. They either want help with tutoring, or they've been referred by a faculty member for assistance with writing, or they are just a little bit lost and have self-identified that this is a place that can provide some assistance (Administrator, WSCC).

Demand for computer-assisted instruction was low because students preferred to work with instructors. However, math instructors taught their classes in the learning center 20 hours per week using the computers. Some of the learning center’s tutors provided assistance in
subject-area classrooms, and a learning center staff member directed
the college's supplemental instruction effort (Hafer, 2001).

At the time of the site visit, there were plans to relocate the center
in a new campus library, allowing the center to triple its space. Interviewees considered the facility to be understaffed, although
demand for services had leveled off when the college abandoned the
use of standardized placement tests several years earlier (Perin, forthcoming). However, the center provided key services such as assistance
to non-native English speakers whose course instructors had difficulty
helping them.

The short-duration courses were taught by faculty members. Instruction was increasingly done with groups rather than individual
students because of a shortage of funds. There was more demand for
tutoring than for these courses because the former required an even
shorter time commitment. According to an administrator, “for a stu-
dent who wants a quickie, they usually choose the tutoring.” In fact, at
the time of the site visit the short-duration courses were about to be
eliminated because they were considered unproductive and “hard to
orchestrate.” A plan under discussion was to move the courses to the
academic departments and substitute less costly peer tutoring, stu-
dent study groups, and support services provided by personnel other
than faculty.

Western Rural Community College (WRCC)

WRCC’s learning center offered tutoring to support work across the
curriculum. Services were provided at the request of the student and
were not formally tied to any specific course.

Southwest Urban Community College (SWUCC)

SWUCC had a learning center that offered walk-in tutoring in math,
reading, writing, science, and foreign languages. Approximately 75%
of the students who used the center were enrolled in college-credit
courses, the rest in developmental education. In Fall 2000 there were
7,087 visits for reading, 4,942 for writing, and 6,321 for math. The
center was open seven days a week and held late evening hours four
days a week. The tutors were 20 hour per week adjunct faculty, some
of whom also taught college composition courses. Some of the students
did their developmental English and math homework in the learning
center with the help of a tutor. In addition, some of the tutoring was a
required lab component of the developmental reading and writing
courses.
Since it was assumed that many of the students would continue to need tutoring at the credit level, some students were familiarized with learning center services while they were in developmental education. Indeed, college composition instructors referred students to the learning center for tutoring to support their work in the course. However, because there was a question of the tutors’ role in improving students’ work, some instructors administered in-class assessments:

[An English instructor] has all in-class essays. And for some of the students, that’s a real chore, because they’ll have an hour to write those essays… some people just can’t do that. Some people just freeze up… But there’s a real advantage the reason he does it. In part, is so that he knows they’re the ones doing the writing. Because, so often, even we see that in the lab, they can get help from various tutors. I mean, you end up with a pretty good essay, once you run it past four different tutors, you know (Developmental Education Faculty, SWUCC).

Southwest Suburban Community College (SWSCC)

SWSCC had a learning assistance center and a math lab. The learning center provided tutoring to all students, both in developmental education and college-credit courses. Only 21 students requested support in reading and writing in Fall 2000, smaller than the demand for assistance in math (185 students) and subject areas such as chemistry and biology (124 students).

Midwest Urban Community College (MWUCC)

MWUCC’s learning center provided tutoring to approximately 300 students per semester in a range of subjects. Demand for math and English was heavier than for the subject areas. The majority of students seeking assistance were low-proficiency English speakers and older, returning female students. Students signed up for hourly appointments, and were entitled to 16 hours of tutoring per course per semester. Tutoring was available on weekdays and included evening hours on four of the days. The center was fully utilized, and received approximately 500 requests for tutoring in the Spring 2001 term.

Besides tutoring, the center conducted specialized workshops, such as writing for the humanities and English as a Second Language conversation. On staff at the learning center were 18 tutors, including both professional tutors and advanced students at the college. Some of the students who received tutoring appeared to have learning dis-
abilities but the tutors, not having specialized training, confined their efforts to helping with course assignments and building confidence. A professional tutor described difficulties he had in working with a student with special learning needs:

Some of the students are very challenged. And some aren’t. Some just need support… my emphasis is English, speech, social science, when necessary philosophy, humanities. I like to teach people anything but math and science… the people who are especially challenged, just did not get to go to school early on. One young lady, I called her young, she’s probably about 50… has 16 brothers and sisters. And then working and raising those brothers and sisters since she was ten, really never went to high school… She’s learning… but she couldn’t comprehend the difference in yesterday and tomorrow… [she was native-born and] I was totally unprepared for that… [To help her] it’s like when you get some sense that you are in deep water, you either are trying to touch the bottom and push yourself up or tread water and try to get to the top. And I started getting the sense of how deep her problems were. And decided that I really didn’t want to find out how bad they were. I was more concerned about focusing on the assignment that she had, and mutually appreciating some success with respect to that specific assignment. And so by the time that was over, we both had a sense that we had made progress… I need to say very candidly that other people on the staff primarily work with [students with severe needs]. That is not my forte. I do work with them [sometimes], and it reminds me of why professionally I stayed out of grammar school and high school. My patience level is not consistent with that… Their needs are just so deep… first you have to encourage people to believe in themselves. That’s part of the problem. And I can do that. But then when you have a student who may forget something that either you said or that they said ten minutes ago, then we have a real problem (Tutor, MWUCC).

In addition to assistance in the learning center, students could schedule tutoring in the math department at certain times.

**Midwest Suburban Community College (MWSCC)**

MWSCC’s had separate learning centers for math and writing, and a general tutoring center to provide support in the subject areas. An interviewee stated that the writing center was under-utilized because participation was voluntary. At the time of the site visit, a new reading center was scheduled to open in response to an instructor survey which revealed deep concern about students’ reading skills. The math and writing centers were staffed by faculty, one of whom oversaw the developmental reading instruction.
In addition to the above centers, there were five Student Success Centers that offered developmental education as well as college-credit courses using self-paced, computer-assisted programs. For the developmental education courses, students signed up for a specified number of sessions per semester and received instruction from a staff member and/or computer. The Student Success Centers also offered a one-credit course in job-related spelling and writing.

**Midwest Rural Community College (MWRCC)**

There were three learning centers at MWRCC. First, there was an academic assistance center, funded through grants, that provided tutoring in reading, writing, math, and other subjects. The second was an office in the math department that was set up as a math center, staffed by a group of peer tutors and a professional tutor. The center was well attended, and math faculty, whose offices were nearby, also provided assistance as needed. The third learning center was a career assistance lab that had software packages such as “Wrong Sentences” to teach academic skills. The college also had plans to set up writing center staffed by a full-time faculty member who would receive release time to oversee this effort.

**Southwest Urban Community College (SUCC)**

SUCC was a multi-campus college. There were several tutoring centers on each campus that provided assistance in reading, writing, and math. The math center provided tutoring as well as computer-assisted learning, and staff at the writing center helped students critique and proofread essays assigned in various courses.

**Southwest Mixed Community College (SMCC)**

SMCC, also a multi-campus college, served a mixed urban and suburban population. As with SUCC, there were learning centers on each campus providing assistance in reading, writing, and math. The centers were staffed by both full- and part-time instructors and tutors. Developmental education students fulfilled their lab requirement through computer-assisted practice in the learning centers. There were close connections between the learning centers and remedial classes since the developmental education instructors also provided some of the tutoring in the learning centers. One of the instructors customized part of a remedial English textbook so it could be used in tutoring in the learning center. While many other colleges have
separate resource centers and learning centers, these two forms of assistance were combined at SMCC, where one of the learning centers had a library of materials to assist content-learning. For example, the nursing students could borrow manipulative materials to help them learn the names and functions of body parts.

**Northeast Urban Community College (NEUCC)**

NEUCC was part of a large municipal university system in an urban area in New York State. Minority participation was very high and many students were immigrants whose native language was not English. Although developmental education placement was strongly enforced for low-scoring students (Perin, forthcoming), there was heavy utilization of tutoring across the degree programs because students who placed in college-level courses continued to have difficulties with basic skills. Tutoring also was provided to support some of the developmental education courses.

They have to... reach a certain a score on the ACT test. Now, does that mean that they can engage fully in challenging course work that's credit bearing towards a degree program? No, not necessarily. They still might need some extra support, particularly when we are talking about students who are using English as a second language and who come out of high school without the math skills that they really need, and if they are going into something that is a strong technological area where they need certain skills, they might not have them... a lot of the tutoring is after a remediation level (Administrator, NEUCC).

There were numerous academic learning centers around the campus, mostly in the academic departments. Some specialized in assistance to ESL students, some were linked to the developmental education courses, and others were linked to various college credit courses in the discipline areas. A writing center that previously operated only in the English department recently expanded to be a campus-wide service and many students enrolled in college English received tutoring. This service appeared to improve the retention rate for these classes, in which dropout occurred as the work became harder. Also, there was a tax-levied Support Center that provided tutoring and mentoring for first year students who were able to demonstrate that they came from disadvantaged backgrounds.

As with many other colleges across the country, NEUCC had a separate learning resource center where students could borrow ancillary audio-visual and print materials to reinforce their learning of course content. Students who were considered to need academic skills
development were referred by learning resource staff for tutoring at one of the college’s learning centers.

**Northeast Suburban Community College (NESCC)**

NESCC’s learning assistance center was well-funded, well-staffed, and highly visible on campus, occupying ample and pleasant space in the college library. Since the facility stands out in the National Field Study sample for its strong support by college administration and its high quality coordination, it is worth describing in detail.

The center, which was directed by an associate dean, was open from 7 a.m. to 10 p.m. on weekdays and also held hours on weekends. The college computer center was located in the same building. The learning assistance center provided individual and group tutoring to support both developmental education and college-credit courses. For example, a writing tutor helped students write papers for courses such as biology. The heaviest demand was for tutoring in math, science, and chemistry. The center also provided a lab component required by all developmental education courses (Boylan, 2002). Besides tutoring, the center provided freshman orientation sessions as well as stand-alone workshops on academic skills, strategies for handling test anxiety, and managing time.

According to college policy, remedial enrollment was voluntary for students who failed the placement test. Students who declined remediation could use tutoring as an alternative:

> To be honest with you, the majority of students when they find out it is a remedial course or I call it a refresher course, it has no credit, they will not take it because it will delay their degree progress. So what we’ve done is we rely heavily on the [learning center] (Developmental Education Faculty, NESCC).

Students with borderline placement test scores were referred by advisors to the center:

> They end up down there not really on their own, but because they have a discussion with their advisor, they know that it’s an option to a noncredit course, the advisor has said, “You’re kind of [borderline] on the placement test” and given their high school grades and the way you feel about how many courses or what you’re going to take, you may be able to complete this course if you work in the [center] (Administrator, NESCC).

The center provided assistance to students who enrolled in remedial courses. A developmental education instructor noted that students...
who used the learning center had better persistence rates but sometimes received an inappropriate amount of help with course assignments:

We have [a learning center], so many of them go there. The students that actually make it through the course and stick to it—because we have a very large dropout rate, as you can imagine—many of them use the [center] because it’s a place where they can get help in their content areas, and they also need help with their writing... every once in a while, I’ll have a few students who... knock themselves out trying to create strategies to avoid writing in front of me and then suddenly appear with polished papers (Developmental Education Faculty, NESCC).

Two students spoke highly of the tutoring they had received in math and writing. Student 2’s statement about improved grades lends weight to the concern of the developmental education instructor just quoted:

.Student 1: It’s good because the one lady, in particular, she knows how to explain step by step by step, like in simple terms, and other ones will just skip steps, and I don’t know where she got the answer from. As far as the learning center, I’ve told the one lady down there that I think they should have more room for math, because that’s is the only section that ever gets filled up, is the math. They have three full timers; they need another one down there, and stuff like that.

.Student 2: There are people in the [learning center] who know each teacher’s way, method. The algebra. I mean you can have five different teachers and they ask you who is your teacher, so they show you what [your teacher] is showing you, and that’s really helpful because if you don’t ask questions you’re not going to get the answers. And if you’re asking somebody to show you something and you don’t give them the information that you’re in [a particular class] they’d be teaching you in a completely different way, then you have numbers and everything running all over your head that goes everywhere; you can’t put them into place. And then with the reading, I bring my essays there, and they helped me go from a B to an A just by looking it over telling me [how to correct punctuation], they assist you in getting a better grade on the paper. They’re really great over there, they really are (Student group, NESCC).

An institutional study found a significant positive correlation between frequency of visits and GPA—grade point averages were one point higher for students who made six or more visits in one semester than students who used the center less frequently. In the 1998–1999 academic year, 19,233 visits were made by a total of 2,936 students.
(mean 6.6 visits per student), in both developmental education and college-credit courses.

The center was seen as vital to the education of NESCC students and although the administration ensured funding, the state was not as supportive:

Consequently dollars have to come from other programs, and as an open-enrolled institutions, we spend an inordinate amount of money on remediation [and] our [learning center]. I think I probably have about eight full-time people dedicated to that. And if I didn’t do that, I don’t know what would happen to some of these youngsters coming from inner-city schools (Administrator, NESCC).

In addition to the learning assistance center, there were other, smaller support centers connected with the academic departments, some of which relied on tutors provided by the main learning center:

Everybody wants a little space and everybody wants a little study center, and so chemistry has a little area and physics has a little area and early childhood has a little study center . . . [but] they don’t have staffing, it’s not staffed. There are faculty during their office hours or it’s open and they can have the CDs and maybe they have a couple computers and the software that comes with their textbook, but it’s not staffed. So what I’m doing is providing staff for these sites and . . . then traffic is down at the [main learning center] and there’s pressure. I say you can’t measure our success on numbers any more when we’re sending people out all over. I don’t want to compete with those areas . . . And yet I have three full-time specialists sitting down there, sometimes waiting for business, you know, so I’m not sure (Administrator, NESCC).

There were attempts to centralize the college’s learning assistance services over the years. The interviewee just quoted also cited Boylan’s (2002) work in support of the centralization of support services:

[In] my opinion [the college] hasn’t made up its mind whether it’s better to offer support services in a centralized or decentralized manner, and although I can tell them that the research says centralized support services are more effective, and I can show them everything that I learned at Kellogg, you know, the Exxon Study and all that, supports that. [At NESCC], we’re kind of between. Some years I think that we’re centralizing, and then all of a sudden there are little study centers all over campus (Administrator, NESCC).

The center had some spare capacity, and English and math specialists visited the English and math department meetings to recruit
students for tutoring. Also, the college promoted the learning center’s services through a weekly campus-wide “tutorial” event.

**Northeast Rural Community College (NERCC)**

NERCC was comprised of a main campus and several satellite sites. There was a learning center on the central campus that offered tutoring in reading, writing, and math. Although the satellite campuses served more academically lower-functioning students than the main campus, they have no learning centers and did not provide tutoring. Instructors on the main campus who observed academic difficulties in class could refer students for tutoring, especially older, returning adults. NERCC counted tutoring as a counseling service. The service seemed to be under-utilized as students saw it as a punishment:

> I’m finding that a lot of times when the student is asked to come and see us that they’re looking at it like being sent to the principal rather than viewing it as a support service or a place of opportunity. And you know truly it is support... but they don’t understand that to begin with and so that’s why they don’t really show up (Counselor, NERCC).

There was a disability specialist on staff in the learning center who advised students and faculty regarding educational accommodations and schedules.

**DISCUSSION AND CONCLUSION**

Every one of the 15 colleges in the National Field Study sample had at least one learning center, and seven sites had both learning centers and specialized skills labs. These facilities served either as a supplement or alternative to developmental education in preparing students for the academic demands of postsecondary education. Four of the sites had multiple centers with different services, and some of the funding targeted specific populations. All sites offered tutoring, and nine of the colleges also offered computer-assisted instruction. Several sites provided short-duration or self-paced courses, as well as specialized workshops in their learning centers.

Students in both college-credit and developmental education courses availed themselves of the assistance and, in some cases, the learning centers provided a lab component for developmental education. Different segments of the community college population showed different utilization of the services. For example, the heaviest use of
learning assistance at SWUCC was by students in college-credit courses, and at MWUCC by low-proficiency English speakers. Demand within skills area also varied. For example, reading assistance was sought mostly by developmental education students at NWSCC and by college-credit students at SWUCC.

In cases where students decline remedial courses or where these classes are ineffective, assistance in learning centers can help fill in gaps in reading, writing, and math skills. Additional research is needed to compare the effectiveness of the learning of skills in developmental education versus learning assistance centers. For example, since students appear to approach tasks differently depending on subject matter (Jones, Reichard, & Mokhtari, 2003), a hypothesis that could be tested is that the generic instruction in developmental education courses may be less effective than the contextualized learning of skills that may occur when students are coached on reading, writing, or math skills while completing specific subject-matter assignments in learning centers or skills labs.

A determination of the outcomes of learning assistance was beyond the scope of the current research. However, NESCC reported that students who paid more than six visits to the learning center had a GPA of a point or more higher than those who paid fewer visits, and NEUCC reported an increase in retention in college English courses when students received learning assistance. This type of correlational information needs to be corroborated with controlled comparisons, for example to rule out the possibility that students with better skills (higher GPA) are more inclined to seek help than those with poorer skills (lower GPA). Similarly, the same students who tend to persevere rather than drop out of courses also may seek learning assistance. Thus, future research needs to determine whether characteristics of students or learning centers are responsible for the outcomes.

A good deal of the learning assistance at the study sites was focused on helping students complete course assignments. There was some concern that in some cases, tutors were providing too much help, leading instructors to question whether the resulting product was really the student’s own. Another issue that arose concerned the utilization of learning assistance centers: Six of the sites reported that the services were under-utilized, that there had been a decrease in demand, or that there was a need to recruit participants. Since there appeared to be a proliferation of learning assistance services, future research could determine whether there was any duplication of services among the centers and specialized labs that led to an appearance of under-utilization.
Finally, the extended quote from the tutor at MWUCC suggests a need for professional development. If a portion of students seeking help in learning assistance centers have learning disabilities, orienting tutors to instructional strategies shown to be effective with special-needs populations may be beneficial. In any case, the ubiquity of learning assistance at community colleges reinforces the reputation of these institutions as places that prioritize instruction and care deeply about students.

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