

Developmental Reading Analysis

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Office of Planning and Institutional Research



Executive Summary

To support the planning of an Achieving the Dream (ATD) intervention for developmental reading students, a summative analysis was conducted to examine variables contributing to persistence among students enrolled in developmental reading courses. In general, students taking developmental reading courses are at risk for not persisting. Of the total of 11,621 first-time degree-seeking students entering TCC during the fall semesters of 2007-2010, 2,589 (22.3%) of them enrolled in a developmental reading course during their first fall. Some important differences to note about these students are as follows:

- Only 42.6% of students enrolled in developmental reading during their first semester returned to TCC in the following fall, compared to 48.2% of those who did not enroll in developmental reading during their first fall semester.
- At greatest risk are students who enrolled in developmental reading during their first semester and did not take any college-level courses during that semester, as only 34.5% of these students persisted to their second fall.
- Students from these cohorts who enrolled in developmental reading in their first semester at TCC have significantly lower graduation rates than do those who did not take developmental reading during their first semester at TCC.

In light of these statistics, the major goal of the present analysis was to examine variables that may promote persistence from fall-to-spring, fall-to-second fall, and fall-to-third fall (including completions by third fall) among students enrolled in developmental reading courses during their first fall semester.

College-Level Courses

The primary factor examined was whether or not students enrolled in college-level courses as well as developmental reading during their first semester at TCC. In addition to examining whether students enrolled in any college-level courses, the unique benefits of taking Academic Strategies were examined. Thus, the groups of interest for this “college-level” variable are as follows:

1. **Any college-level group:** students enrolled in a developmental reading course and any college-level course(s) during their first semester at TCC (N = 1,984, or 76.6% of developmental reading students).
2. **Strategies group:** students enrolled in a developmental reading course and Academic Strategies during their first semester at TCC (N = 703, or 27.2% of developmental reading students).
3. **Other college-level group:** students enrolled in a developmental reading course and any college-level course(s) other than Academic Strategies during their first semester at TCC (N = 1,281, or 49.5% of developmental reading students).
4. **No college-level group:** Students enrolled in a developmental reading course and no college-level course(s) during their first semester at TCC (N = 605, or 23.4% of developmental reading students).

For all comparisons, it is important to note that these samples represent students who enrolled in, but did not necessarily complete, the courses examined.

Chi-square analyses were conducted to compare the persistence rates of students who took developmental reading as well as college-level courses during their first semester at TCC with those of students who took developmental reading but no college-level courses during their first fall. Findings revealed that students who take any college level courses while taking a developmental reading course during their first fall persist at a significantly higher rate from fall-to-spring, fall-to-second fall, and fall-to-third fall than students who take developmental reading but no college-level courses during their first semester. Specific persistence rates for both groups are presented below in Table 1.

*Table 1. Persistence Based on Enrollment in College-Level Courses**

Any College-Level Group	No College-Level Group
First Fall	
1,984	605
Fall to First Spring	
1475 (74%) ^a	333 (55%) ^b
Fall to Second Fall	
893 (45%) ^a	209 (35%) ^b
Fall to Third Fall (includes completions of certificates and degrees)**	
468 (31% of 1513 possible) ^a	92 (22% of 416 possible) ^b

* Different letters represent statistically significant differences at a 99% confidence level.

**The fall 2010 cohort is excluded from the fall-to-third fall results because their third fall will be in fall 2012.

Moreover, to assess whether there are any unique benefits of taking Academic Strategies alongside developmental reading courses, additional chi-square tests were performed to compare developmental reading students who took Academic Strategies with those who enrolled in college-level courses other than Strategies. Lastly, students who enrolled in developmental reading and college-level courses other than Academic Strategies were compared to students taking developmental reading but no college-level courses.

A pattern of findings emerged such that students who enrolled in developmental reading and Academic Strategies during their first fall persisted at a significantly higher rate than did developmental reading students who enrolled in no college-level courses as well as those who enrolled in college-level courses but not Academic Strategies. Despite the advantage for Strategies students, developmental reading students who enrolled in any college-level courses other than Strategies also persisted significantly more than did those who did not take any college-level courses during their first semester. Specific persistence rates for the three groups are presented below in Table 2.

*Table 2. Persistence Based on College-Level Courses Taken**

Strategies Group	Other College-Level Group	No College-Level Group
First Fall		
703	1,281	605
Fall to First Spring		
562 (80%) ^a	913 (71%) ^b	333 (55%) ^c
Fall to Second Fall		
365 (52%) ^a	528 (41%) ^b	209 (35%) ^c
Fall to Third Fall (includes completion of certificates and degrees)**		
186 (34% of 543 possible) ^a	282 (29% of 970 possible) ^b	92 (22% of 416 possible) ^c

* Different letters represent statistically significant differences with a 99% confidence level. The only exception to this confidence level is the difference in fall-to-third fall persistence between Academic Strategies students and “other” college-level students, which was significant with a 95%, but not 99%, confidence level.

**The fall 2010 cohort is excluded from the fall-to-third fall results because their third fall will be in fall 2012.

Specific Developmental Courses

Persistence also was investigated as a function of the particular developmental reading courses in which students were enrolled. Specifically, the groups of interest for this second factor are:

1. **Reading I & II group:** students enrolled in Reading I during their first fall and Reading II in the following spring (N = 189, or 7.3% of developmental reading students).
2. **Reading I group:** students enrolled in Reading I during their first fall but who did not take Reading II in the following spring (N = 812, or 31.4% of developmental reading students).
3. **Reading II group:** students enrolled in Reading II during their first fall (N = 1,588, or 61.3% of developmental reading students).

Multiple chi-square tests were performed to examine differences in the persistence of the three groups noted above. Findings revealed that the Reading II group persisted from fall-to-spring and fall-to-third fall at a significantly higher rate than the Reading I group. However, the difference between these groups on fall-to-second fall persistence was not statistically significant. Students in the Reading I & II group had a significantly higher rate of fall-to-second fall persistence than both of those groups and a significantly higher rate of fall-to-third fall persistence than the Reading I group. Persistence rates for the different groups are shown below in Table 3.

*Table 3. Persistence Based on Developmental Reading Course(s)**

Reading I & II Group	Reading I Group	Reading II Group
First Fall		
189	812	1,588
Fall to First Spring		
189 (100%)	510 (63%) ^a	1,109 (70%) ^b
Fall to Second Fall		
109 (58%) ^a	315 (39%) ^b	678 (43%) ^b
Fall to Third Fall (includes completion of certificates and degrees)**		
58 (35% of 164 possible) ^a	168 (24% of 709 possible) ^b	334 (32% of 1,056 possible) ^a

* Groups with different letters were significantly different at a 99% confidence level. Groups with the same letter were not significantly different, even with a 95% confidence level.

**The fall 2010 cohort is excluded from the fall-to-third fall results because their third fall will be in fall 2012.

Conclusions

In summary, findings revealed strong support for the benefits of enrolling in college-level courses simultaneously with developmental reading. Indeed, an interesting pattern of results emerged, demonstrating incremental benefits of college-level courses. Specifically, developmental reading students who took college-level courses other than Academic Strategies during their first semester persisted more than those who did not take any college-level courses. Further, developmental reading students who took Strategies during their first semester persisted more than did those who took other college-level courses.

Results from the analyses pertaining to the specific developmental reading courses suggest that the students who are most likely to persist in college are those who took Reading I in their first fall and then Reading II in their first spring. This pattern is especially true when comparing these students to those who took Reading I in their first fall but not Reading II in the following spring. When comparing students who enrolled in Reading I in their first fall (but did not take Reading II in the spring) with those who took Reading II in their first fall, findings suggest some advantage for the students taking Reading II over those in Reading I. In particular, those who took Reading II persisted more to their first spring and to their third fall than those enrolled in Reading I. However, despite a higher percentage for the Reading II students, the difference between these groups for fall-to-second fall was not significant.

Taken altogether, these results suggest that first-time students in developmental reading courses greatly benefit from enrolling in college-level courses during their first semester, especially if that course is Academic Strategies. This finding is particularly important because developmental reading students tend to be at risk with regards to persistence in general. Moreover, findings suggest that students testing into developmental reading benefit from taking both Reading I and Reading II, even when compared to those who demonstrate reading proficiency by taking only Reading II during their first semester. One important caveat to note is that the samples in the present analyses represent students who enrolled in, but did not necessarily complete, the courses examined and thus, the results may be somewhat different when including only students who completed the courses. Nevertheless, any significant benefits of enrolling in particular courses found in these analyses are likely to be more pronounced when examining only students who have completed the courses. The present findings have important implications for decisions regarding advising and curriculum that are designed to promote persistence and graduation.