



Learning to Learn® Results

Externally Validated Studies

Learning to Learn has won official recognition as an Exemplary Program by the U.S. Department of Education. For over 20 years (1974 – 1996), the U.S. Department of Education’s Program Effectiveness Panel investigated over 700 hundred promising programs at all levels of education. Programs were evaluated for evidence of replicability and for the validity and reliability of the study’s design and statistical outcomes. Approved programs were required to demonstrate that only the treatment – and not other factors – was responsible for the effect. In the 22 years of the panel’s operation, *Learning to Learn is the only college-level program that met these criteria – showing significant, long-term effects on both academic performance and retention.*

The U.S. Department of Education's approval of LTL for national dissemination was based on data from studies at Boston College and Roxbury Community College. At both colleges, the target population was a group of students who were educationally and economically disadvantaged relative to the college population as a whole. For example, at Roxbury Community College, the treatment group entered the program reading at the sixth grade level. At Boston College the treatment group’s mean combined SAT was 812, as contrasted with a mean SAT score of 1060 for normally-admitted freshmen at the university.

Independent Variables: college entrance test scores, previous semester’s grade point average, race, sex, year in school, and number of credits taken. That is, experimental and control groups were equivalent on all of these dimensions. The dependent variable was grade point average. The LTL grade was *not* included in the data analysis, and content course instructors were not aware that some of their students were receiving LTL instruction.

Results were as follows:

| Boston College Students | Roxbury Community College Students |
|---|--|
| Experimental Subjects’ mean GPA: 2.44 | Experimental Subjects’ mean GPA: 2.89 |
| Control Subjects’ mean GPA 1.97 N = 74 | Control Subjects’ mean GPA: 2.22 N = 62 |
| F(1,76) = 4.616, p = .035 | F(1,56) = 5.939, p = .018 |

| | | | |
|---|-------|---|-------|
| Credits completed by Experimental Subjects: | 15.10 | Credits completed by Experimental Subjects: | 10.45 |
| Credits completed by Control Subjects: | 12.60 | Credits completed by Control Subjects: | 7.40 |
| F-test significance: | .001 | F-test significance: | .001 |

These studies indicate that LTL students achieved significantly higher grade point averages, while they also completed more course credits. The control group dropped the courses they were failing, thus *the difference in grade point averages is even higher than it appears.*

Follow-up and Retention Studies

Roxbury Community College:

Three semesters after completing LTL, 70% of the former LTL students were either still in college or had graduated, as compared with 40% for students receiving subject-matter tutoring.

Boston College:

Three semesters after completing LTL, 100% of the experimental subjects were still in college and performing as well as normally-admitted students. These results are striking at Boston College, a private, Jesuit institution which is 90% Caucasian, with normally admitted students’ SAT’s at 1060, and where the majority of students are second-generation college students.

| <u>LTL Subjects: Three Semesters After Completing LTL Follow-up</u> | | | |
|---|---------------------|------------|--------------------------|
| <u>% Minority</u> | <u>Combined SAT</u> | <u>GPA</u> | <u>Retention at B.C.</u> |
| 75% | 812 | 2.58 | 100% |

The LTL students, while significantly more disadvantaged than normally-admitted Boston College students, performed as well academically and their retention was higher: Retention for normally-admitted, non-LTL students at Boston College was approximately 80%.

A six-year follow-up study showed that educationally disadvantaged students taking LTL at Boston College had a 98% retention rate through graduation, while the normally-admitted BC students maintained an 80% retention rate.

Replications conducted by LTL-adopting institutions

The most interesting LTL studies conducted by other colleges have compared LTL to a widely-used freshman seminar program which focuses in motivational techniques and traditional study skills. For example, at Shorter College, an historically black 2-year private college, retention in the sophomore year improved by 38% when the freshman seminar changed to LTL from a traditional, 3-credit freshman seminar course.

Similar results were found at Eastern New Mexico University. 514 freshmen were divided into 3 groups. One group had no freshman seminar course (NC); a second group was enrolled in a traditional 3-credit freshman seminar course(TC); the third group was enrolled in a 3-credit freshman seminar course using LTL.

The ENMU study replicated the design of our studies at Boston College and Roxbury Community College: The experimental design controlled for race, sex, age, A.C.T. scores, number of academic credits, and types of courses taken; groups were equated using Analysis of Variance. LTL had a strong, significant impact on both student retention and grade point average. However, there was *no significant difference between the untreated group (NC) and the traditional course group (TC)*.

| Eastern New Mexico University | | |
|---|----------------|------------------------------|
| <u>Dependent variable = Grade Point Average</u> | | |
| | <u>F value</u> | <u>Level of Significance</u> |
| Difference between LTL and TC | 8.13 | .0001 |
| <u>Dependent variable = Retention</u> | | |
| | <u>F value</u> | <u>Level of Significance</u> |
| Difference between LTL and TC | 4.61 | .0012 |
| N = 514 | | |

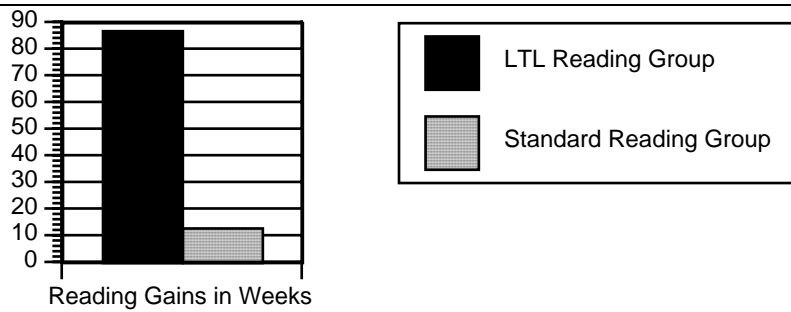
| ENMU: Dropout rate between freshman and sophomore years | | |
|--|---------------------------------|---------------------------|
| <u>LTL Group</u> | <u>Traditional Course Group</u> | <u>No Treatment Group</u> |
| 18.6% | 28%* | 26.9%* |
| *The difference between the Traditional Course and No Treatment Groups is not statistically significant. | | |

Reading Improvement

At Eastman Kodak, a group of workers was instructed in LTL; at the same time, another, similar group of workers was entered into a traditional reading improvement program. Both groups were given 13 weeks of instruction, 3 hours per week.

Results are shown below:

| |
|---|
| <u>Reading Skills Improvement with LTL</u> |
|---|



*Results are for trainees who entered the training program with entry scores on the TABE reading inventory between 8.0 and 11.9.

**The actual reading gain for LTL trainees was probably greater than 86.4 weeks: 46% of these LTL-trained participants scored at the top of the TABE (12.9). This suggests that a true assessment of the gains can only be done with a reading test which goes beyond 12.9.

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