GIBSON INSTITUTE
OF COGNITIVE RESEARCH

LearningRx Training and IQ Gains

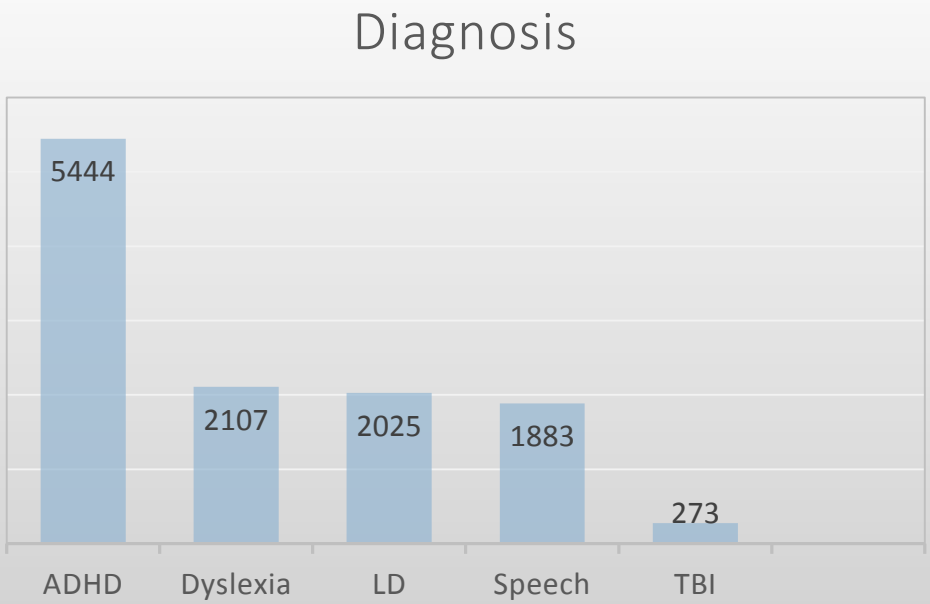
Amy L. Moore, PhD
Educational Psychologist/Director of Research

GIBSON INSTITUTE
OF COGNITIVE RESEARCH

LearningRx Double-Pretest Posttest IQ Results

- Pediatric optometrist Dr. Ken Gibson created LearningRx to provide one-on-one, cognitive training for people with learning struggles. Between January 2008 and August 2015, more than 18,000 people between the ages of 3 and 95 sought help from LearningRx. A majority were children, ranging in age from 7 to 18.

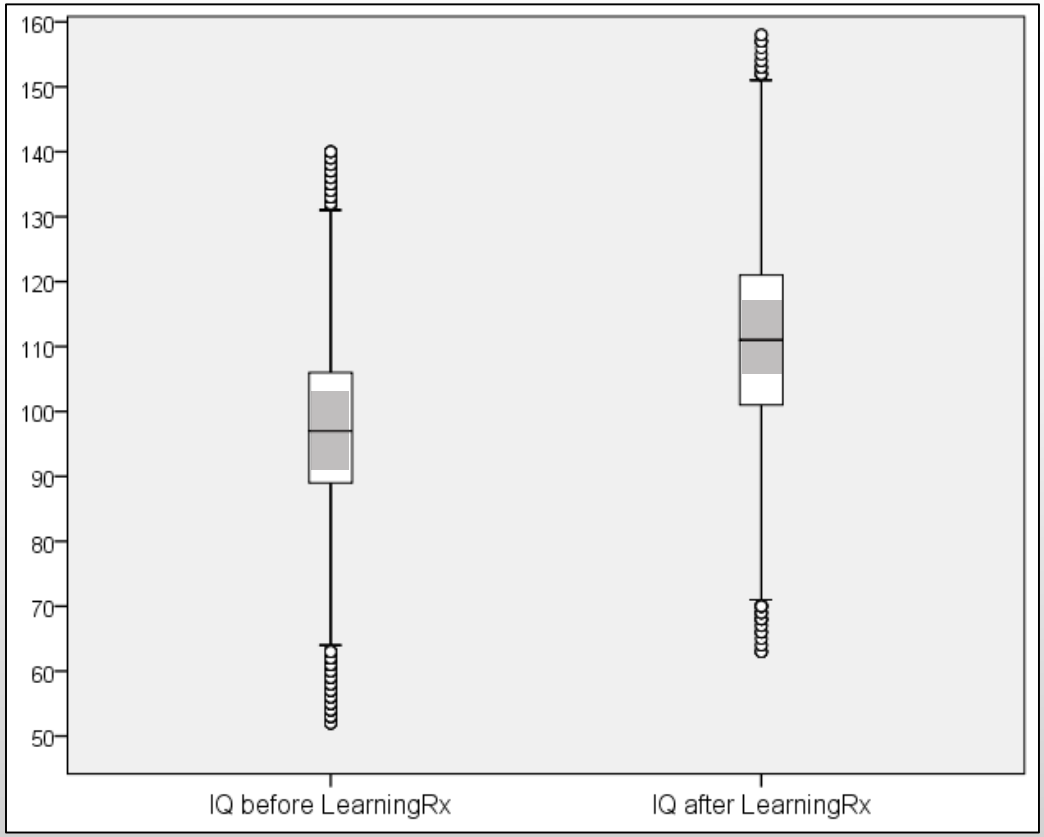
- Concerned parents enrolled their children to help address struggles with reading, math, memory, visual and auditory processing, and overall thinking and learning skills. Nearly 30% of the students had been previously diagnosed with ADHD, and more than 20% with Dyslexia or related learning disabilities.



GIBSON INSTITUTE
OF COGNITIVE RESEARCH

LearningRx Double-Pretest Posttest IQ Results

- LearningRx administers the Woodcock-Johnson III - Tests of Cognitive Abilities to each student before and after the training program. Students complete 60 to 100 hours of training, over four to 18 months. Between 2008 and 2015, the mean IQ prior to training was 97, and the post training mean IQ was 111. The average gain in IQ was 14 points.

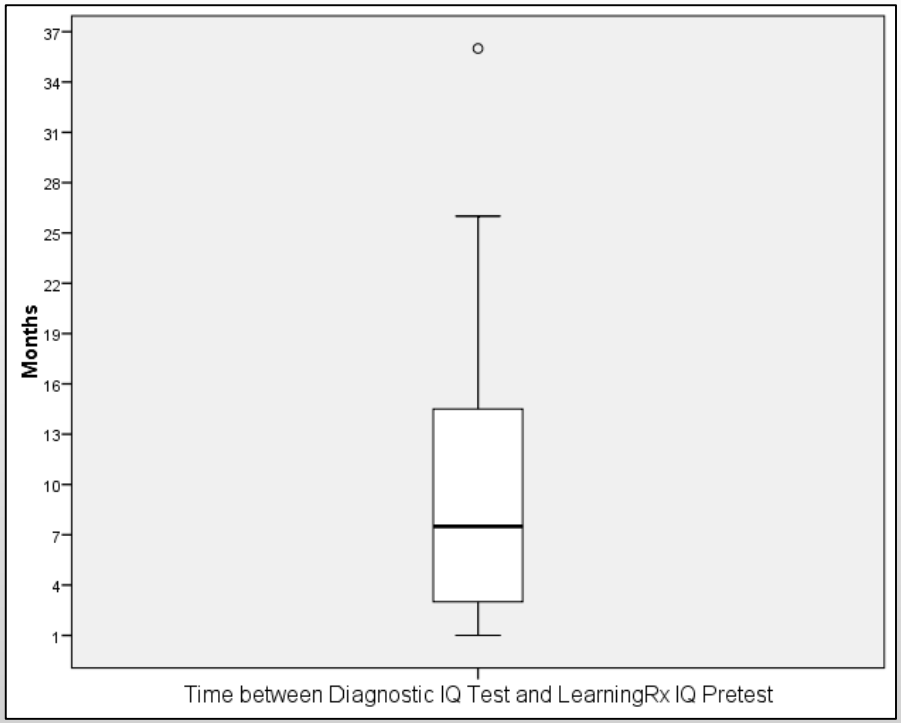


GIBSON INSTITUTE
OF COGNITIVE RESEARCH

LearningRx Double-Pretest Posttest IQ Results

- Although the statistically significant gains of 14 IQ points are impressive, we don't know what the gains might have been had the students not had cognitive training. A control group or other means of comparison would strengthen the link between the intervention and the gains.

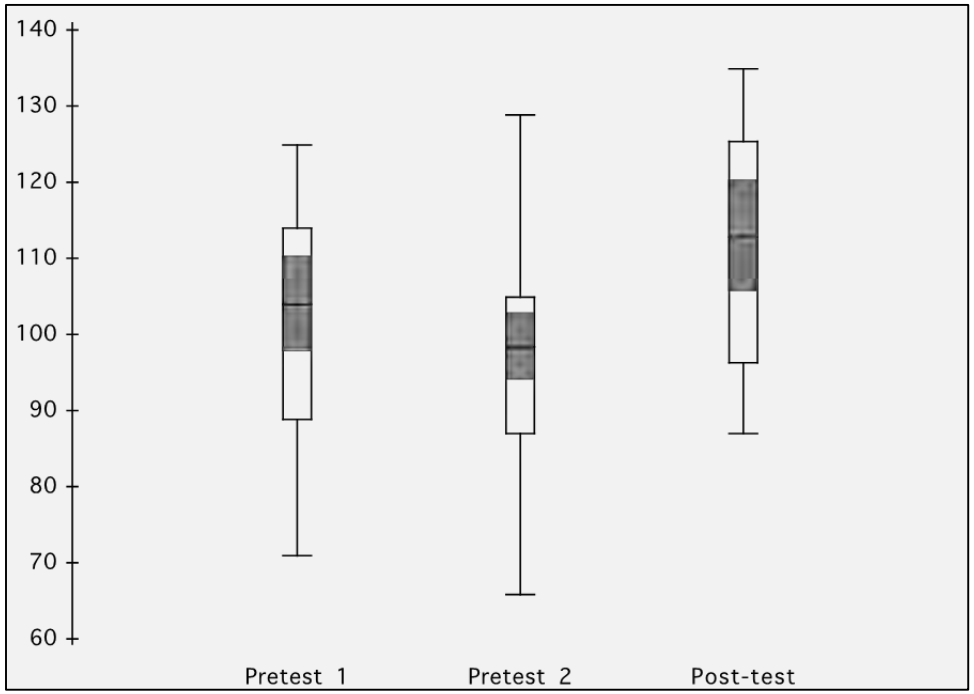
- So, we collected diagnostic records containing prior IQ testing scores from 40 LearningRx students to compare the change in IQ from the time of diagnosis to the time of pretesting at LearningRx, and then with post-testing at LearningRx. The prior diagnostic assessments were administered an average of 9 months prior to the LearningRx Pre-test given at enrollment.



GIBSON INSTITUTE
OF COGNITIVE RESEARCH

LearningRx Double-Pretest Posttest IQ Results

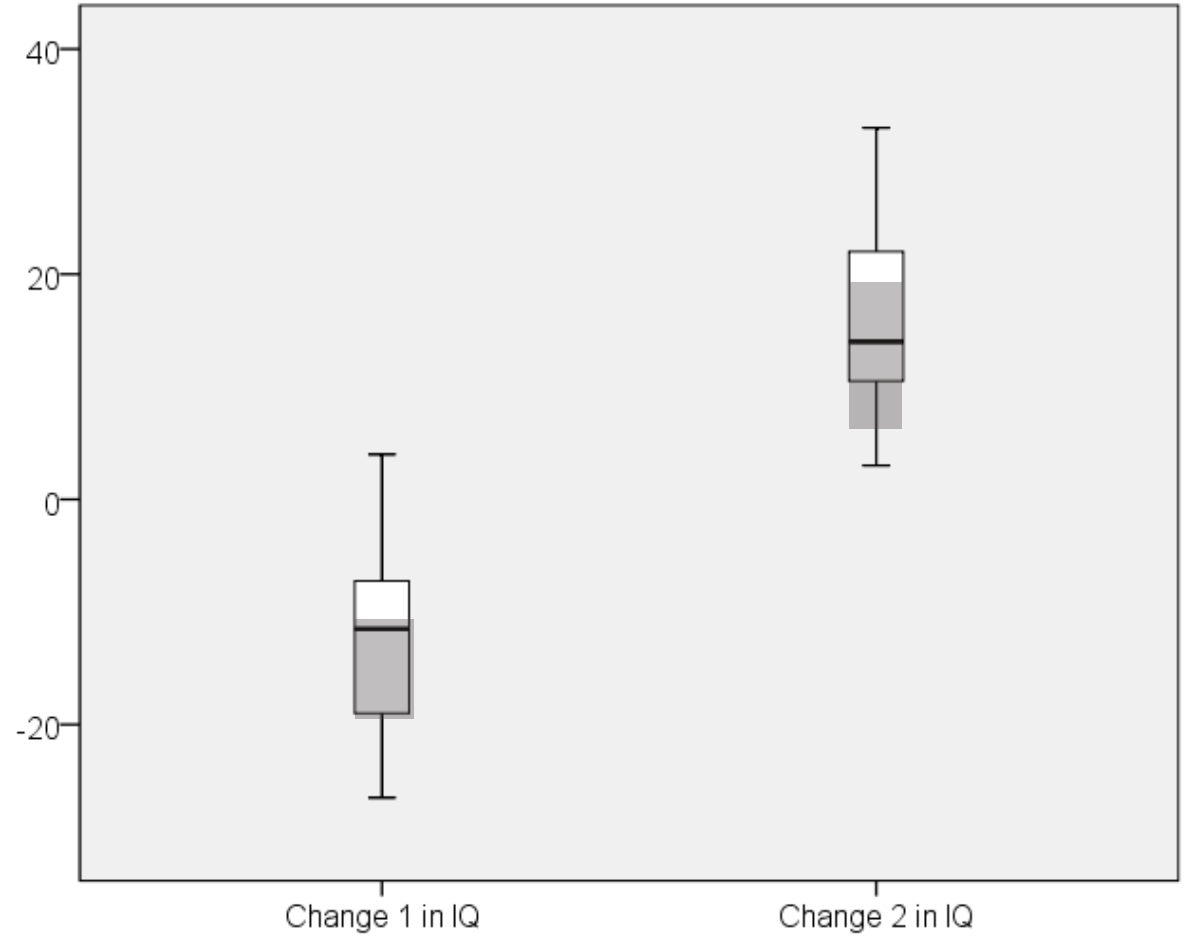
- Comparing the Pretest 1 and Pretest 2 scores, we see a slight decline in IQ from an average of 102 to an average of 96 during the time students waited to begin training at LearningRx. Thus it is apparent they were not spontaneously improving after their initial diagnosis; in fact they were getting worse.
- However, all this changed after treatment. From Pretest 2 to Post-test, they not only regained the ground they had lost previously, but had also made significant improvements. The average IQ after training had increased to 112—a gain of 16 points!



GIBSON INSTITUTE
OF COGNITIVE RESEARCH

LearningRx Double-Pretest Posttest IQ Results

- The dramatic difference in IQ changes from diagnosis to pretest and then to post-test can be seen in the figure below.



Note: Change 1 is a comparison of (Time 1 + Time 2)/2 versus Time 3; Change 2 is a comparison, orthogonal to the previous one, of the change from Time 2 to Time 3.

GIBSON INSTITUTE
OF COGNITIVE RESEARCH

LearningRx Double-Pretest Posttest IQ Results

- The gain in IQ from pretest to post-test for LearningRx students in general was just over 14 points. The gains of students in the subset we examined experienced slightly greater but not significantly different gains at 15.6 points. Thus, we can conclude that they represent the average LearningRx student and the trends we might expect in IQ change before and after intervention.