

Effect of Ripple Effects Training Software on Resiliency Assets

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Introduction

A core set of personal abilities are highly predictive of success in school and life. They include internal “assets” that comprise **resiliency**.

Specific strategies have been scientifically **validated** as effective for teaching and learning those abilities.

Lack of fidelity to these proven strategies is a problem for variety of reasons (time, implementer expertise, cultural competence, language ability, learning differences).

Computer-based training may ensure fidelity by putting expertise in a box, and accommodating individual differences.

To what extent does exposure to *Ripple Effects Coach for Teens* increase sixth-graders emotional outcomes as measured by positive changes in resiliency assets (dependent variables) ?

- **Social Competence (Empathy and Connectedness)**
- **Problem-solving**
- **Autonomy (Self-Management, Self-Efficacy, Sense of Purpose)**

Method

Design

- **Randomized, controlled trials** (154 students randomly assigned to treatment condition)
- **Multiple measures**
 - Student pre/post and follow-up resiliency survey (based on California Healthy Kids Survey – RYDM (Resiliency and Youth Development Module))
 - Archival pre/post and follow-up student data (GPA, absences, tardies, discipline referrals)
 - Teacher interviews, post only
 - Student focus group, post only

Intervention/Dosage

- 11 contact hours, over 10 consecutive weeks, during technology or social skills classes
- Students exposed to and assessed on 44 *Ripple Effects Coach for Teens*TM tutorials, 42 pre-determined, 2 self-selected

Control

- No exposure to *Ripple Effects Coach for Teens*TM program

Statistical Method

- Data analysis conducted using STATA/SE 9.2.
- Descriptive statistics including mean scores on study measures at baseline, post-, and follow-up tests
- Baseline comparisons of scores within/between groups for treatment vs. control were computed using t-tests
- Changes between pre-post, post-follow-up, and pre-follow-up were measured using Analysis of Covariance (ANCOVA) controlling for baseline or posttest scores, gender, and ethnicity.

Intervention

Ripple Effects Coach for Teens Software

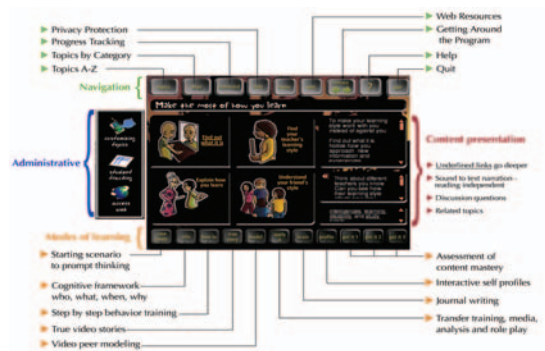
Ripple Effects student-directed software program provides training in research-proven strategies to build core social emotional abilities, solve problems, and address underlying reasons (risk factors).

Content includes a library of more than 5000 media rich screens of science-based information.

Process – The *Whole Spectrum*[©] Learning System enables reading-independent access in whatever way works best for each student. Interactivity is built in.

Data Base Structure enables automated dosage tracking.

Whole Spectrum Learning System



Scope and Sequence

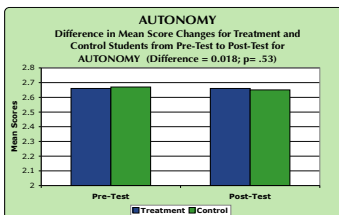
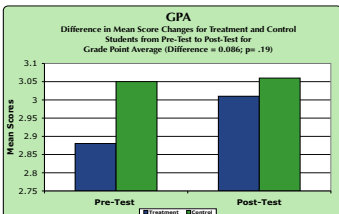
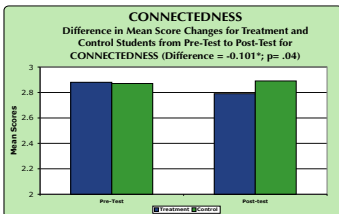
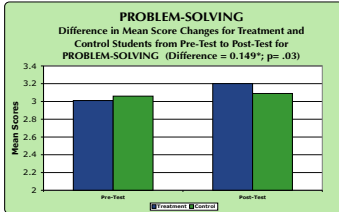
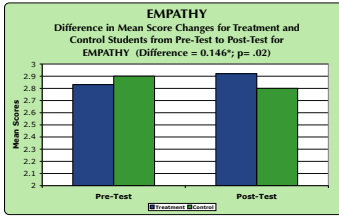
Session	Lesson A	Lesson B	Lesson C
1	learning style	teacher	empathy
2	strengths	helping others	bystander
3	risk & protection	problem-solving	respect – showing
4	feelings-names	perspective taking	sexually harassed
5	motivation	future (not there)	setting goals
6	luck	success-phobia	effort
7	controlling impulses	stopping reactions	cause and effect
8	physical sensations	self talk	outside triggers
9	showing care	brainstorming	resolving conflict
10	control-taking	assertiveness	assertiveness – cont.
11	resilience	getting help	change-normal
12	testing	relaxing	paraphrasing
13	resisting pressure	bullied	joining a group
14	conversations	appreciating diversity	friends-choice
15	responsibility	student choice	student choice

Participants

	Treatment (n=71)	Control (n=83)
Gender		
Female	35 (49.3%)	40 (48.2%)
Male	36 (50.7%)	43 (51.8%)
Ethnicity		
African American	1 (1.4%)	4 (4.8%)
Asian/Pacific Islander	12 (16.9%)	17 (20.5%)
Hispanic	22 (31.0%)	18 (21.7%)
White	36 (50.7%)	44 (53.0%)
English language learner		
No	59 (83.1%)	72 (86.8%)
Yes	12 (16.9%)	11 (13.3%)
Home language		
English only	42 (59.2%)	55 (66.3%)
Non-English	29 (40.9%)	28 (33.7%)

Notes: Sample consists of 154 participants with demographic data.

Data Analysis



Conclusion

- The **treatment group showed significantly higher mean scores** than the control group from pre- to post-test **on empathy** – a resiliency asset
- **The treatment group showed significantly higher mean scores** than the control group from pre- to post-test **on problem-solving** – a resiliency asset
- The **control group had significantly higher mean scores** than the treatment group **on connectedness** – a resiliency asset
- Students who used the program showed **higher (but not statistically significant)** gains than control students in self-management, self-efficacy, sense of purpose - aspects of autonomy
- Mean grade point averages increased for treatment students and remained virtually the same for control students, but **differences were not statistically significant**

There were **no significant gains or losses in mean scores for resiliency assets from post-test to follow-up**, possibly indicating that students maintained their post-test gains.

- Teachers reported **overall decrease in discipline, but administrative data showed no statistically significant difference** between treatment and control group.

Implications for practice

The key finding of this study was that **Ripple Effects computer-based training program helped students build two key social emotional skills: empathy, and problems solving**, with 11 contact hours and *no teacher intervention*. This suggests that, **counter-intuitive as it may seem, under some conditions, machines can teach students to feel and to care.**

Students learned from the program, not the staff facilitating it. This suggests **a wider number of people can successfully facilitate Social Emotional Learning, with far less training** than had previously been believed. The fact that it does not require live instruction and can be available to students who have missed lessons, or need extra help, as well as students with attention or reading problems, increases the chance of **ensuring that each student gets sufficient dosage.**

The **unexpected finding** that teaching randomly selected students skills for caring and including, resulted in other students feeling more connected, **has implications for prevention.** To date, efforts have focused on "fixing" alienated, at-risk students, reinforcing the notion that they are the problem. These new findings suggest that a program can target any students with empathy training, with the result that that whomever they come in contact with, will feel more connected.

Further research would be necessary to clarify the neutral findings for academic performance and student behavior; especially, since prior studies of Ripple Effects software showed statistically significant gains in these areas. The **disparity between teacher perception that overall discipline problems were down compared to prior years, and administrative data** (which showed no significant difference between treatment and control group) generates interesting hypotheses. It is possible that there is a **spill over effect** when half of the students are provided training in social interaction. If half of the students learn to avoid or prevent fights, fighting goes down for the other half as well. If less instruction time is given to dealing with behavior problems, academic achievement may rise across the board. Unfortunately prior year's data was not available for comparison. **More research is called for.**

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