



Roots of Empathy  
Racines de l'empathie

Roots of Empathy is an evidence-based classroom program which has proven effective in reducing levels of aggression among school children while raising social/emotional competence. Founded in 1996, the program aims to foster the development of empathy among students from Kindergarten to Grade 8. In Canada, the program is delivered in English and French and reaches rural, urban, and remote communities including Aboriginal communities. Roots of Empathy is also delivered in New Zealand, the Isle of Man and the United States.



## Roots of Empathy — Report on Research 2009

### Research design of Roots of Empathy

Early evaluations of the program's effectiveness are based on the selection of two groups of children: from classrooms participating in ROE and comparison classrooms not participating. These two groups, are matched with respect to grade, gender, and race/ethnicity composition. Over the course of the school year, comparisons of changes in students behaviours between the two groups are recorded.

There have also been two randomized controlled studies (RCT) of the program. An RCT randomly assigns a certain number of classrooms to participate in the program rather than being selected. This is the gold standard in research as it ensures that both known and unknown confounding factors are evenly distributed between the groups.

### Program fidelity

It is not a given that a widely implemented and well-regarded program will have a positive impact or achieve its goals. It is crucial that careful attention is paid to how closely the program is delivered to the way it is intended. ROE's program fidelity is supported by an Instructor mentoring and monitoring system.

### Research methods

The main goals of evaluation have been to assess any changes in social behaviour of ROE children. Two types of behaviour were measured.

**Pro-social behaviour** is considered as any behaviour that aims to help another person (sharing, including, cooperating).

**Aggression** is considered to be behaviour that is intended to cause emotional or physical pain or harm. Three different types of aggression were assessed:

- Proactive aggression – aggression used to obtain a resource (e.g., an object or a privilege) or directed to another child with the explicit purpose of intimidating or dominating that child. It is often considered synonymous with bullying.
- Reactive aggression – typically seen as impulsive and occurs in response to a perceived threat or provocation.
- Relational aggression – or social aggression, refers to harming others through purposeful manipulation or damage to peer relationships through exclusion, gossiping and back-stabbing.

Outcomes were obtained using widely accepted measures that were undertaken by students and their classroom teachers. Measures assessing social/emotional understanding, classroom climate and parenting knowledge were also used.



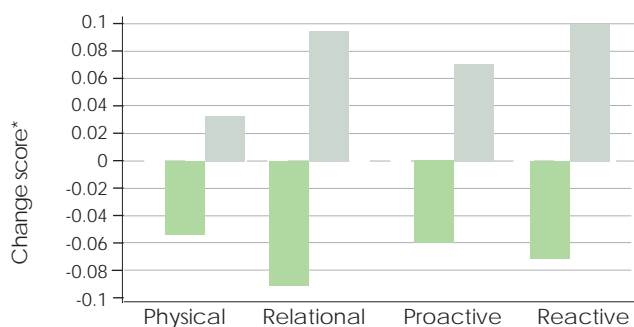


## Research on ROE

Researchers at the University of British Columbia have taken a lead role in early evaluations of ROE, under the direction of Dr. Kimberly Schonert-Reichl. Starting in 2000, the team conducted several studies across different grades and populations. Researchers at Healthy Child Manitoba and the University of Alberta have also conducted studies evaluating the effectiveness of the program.

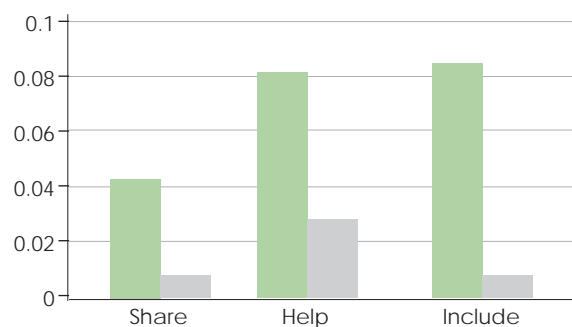
## Summary of key research findings of outcome evaluations

### Key Finding #1: Decrease in aggression



While children in the ROE program showed decreases in aggression from pre-test to post-test, comparison children increased in aggression.

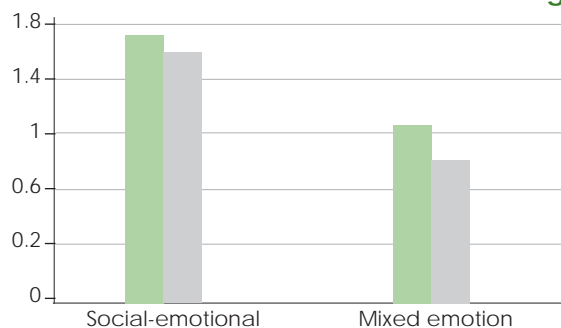
### Key Finding #2: Creates more caring children



ROE students reported a significant increase in pro-social behaviour among their classmates.

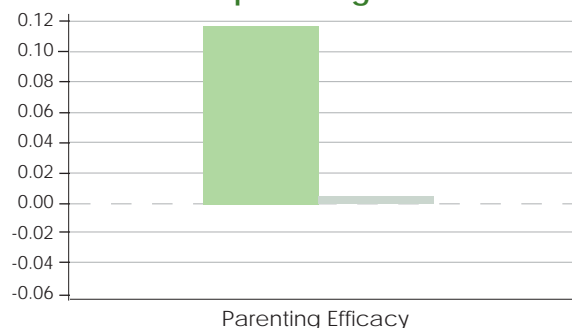
■ ROE ■ Comparison

### Key Finding #3: Increase in social and emotional understanding



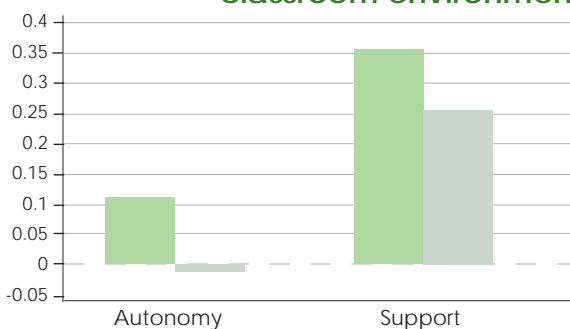
ROE students showed significantly better social and emotional competence than comparison children.

### Key Finding #4: Increase in knowledge of parenting



Students in ROE programs had significantly more knowledge about how to help a baby and were more confident in their ability to be a parent.

### Key Finding #5: Perceptions of a caring classroom environment



Students in ROE classes felt more supported by their classmates and teacher and felt more autonomous than children in the comparison groups.

### Key Finding #6: Lasting results

In 2001, the Healthy Child Committee of Cabinet in the Province of Manitoba commissioned an RCT and follow up study of the program. Researchers found that the ROE group had reduced aggression and improved pro-social behaviour immediately after completing the program and those outcomes were maintained or further enhanced over the three years after the program ended.<sup>2</sup>

\*Change scores are based on different scales of measuring these constructs. For more information on the measures and scales, e-mail [research@rootsofempathy.org](mailto:research@rootsofempathy.org)

*"The program gave me the opportunity to see a caring and sensitive side to each and every one of my students. I was able to learn about them in a way that did not involve 'academic' learning. I would love to have this program run in my classroom again and HIGHLY recommend it to my colleagues."*

ROE classroom teacher



### Trends in ROE classrooms:

- Increased helping behaviour in up to 78% of students
- Increased peer acceptance in up to 74% of students
- Increased perspective-taking in up to 71% of students
- Increased sharing in up to 69% of students
- Increased pro-social behaviour in up to 65% of students
- Decreased social aggression in up to 39% of students

### Research outcome evaluations to date:

UBC 2000-2001 Primary Grade Evaluation, 1-3  
 HCMO 2001-2004 Randomized Controlled Trial  
 UBC 2001-2002 National Evaluation  
 UBC 2002-2003 Rural/Urban Evaluation  
 UBC 2003-2004 Randomized Controlled Trial  
 UA 2006 Whole Schools Project  
 UA 2006 Grade One Project  
 UBC 2008 Fifth and Sixth Grade Evaluation

*"In both industrialised and developing countries, priority is usually given to dealing with the immediate consequences of violence ... While such responses are important and should be strengthened wherever possible, there needs to be a much greater investment in primary prevention of violence – that is, measures to stop violence from occurring in the first place."*

The World Health Organization On Prevention

### ROE Program Evaluations

As well as evaluations on the outcomes of the program for children, researchers have also evaluated the ROE curriculum.

#### University of Missouri, St. Louis

In the U.S., Dr. Marvin Berkowitz has led a review of character education programs. The authors concluded that, "Roots of Empathy reduces anti-social behaviour, e.g. bullying and other forms of aggression, increases pro-social behaviours, and promotes social-emotional understanding. These are all goals of character education."<sup>24</sup>

#### Curriculum Services Canada

Roots of Empathy is recommended as a program for use with students in Kindergarten to Grade 8 to promote understanding of human development, diversity, and the uniqueness of individuals.

#### OISE

Dr. Carol Rolheiser and Dr. Debra Wallace at the Ontario Institute for Studies in Education at the University of Toronto conducted an evaluation of the ROE curriculum. They concluded that, "the curriculum provides comprehensive, even coverage of the five key components of social and emotional instruction (as identified by CASEL\*): self-awareness; social awareness; self-management; relationship skills; responsible decision-making."<sup>23</sup>

\*CASEL: Collaborative for Academic and Social Emotional Learning

*"Roots of Empathy would teach the world to be more helpful, kind, peaceful."*

Grade 6 ROE Student



## What the results mean

### Social/emotional learning

Research on social/emotional learning (SEL) shows that students who participate in SEL programs like ROE, compared to students who don't, have:

- Significantly better social and emotional skills
- Lower levels of stress and depression
- Better attitudes about themselves, others, and school
- Improvements in social and classroom behaviour
- Fewer conduct problems and less aggression
- Better grade point averages and standardized achievement test scores.<sup>5</sup>

### Aggression

- Aggressive children are at higher risk of alcohol and drug abuse, accidents, violent crimes, depression, suicide attempts, spouse abuse and neglectful and abusive parenting.<sup>6</sup>
- Aggression is a known risk factor for academic difficulties and reduced likelihood of graduation.<sup>7</sup>

### Pro-social behaviour

Researchers have found that grade 3 students' level of pro-social behaviour is a better predictor of academic outcomes five years later than was their academic achievement.<sup>4</sup>

### Infant safety and child abuse prevention

Students in ROE also learn important messages of infant safety. In self-report surveys, 99% of students in ROE reported learning that it is dangerous to shake a baby. They also have many more strategies to help a crying baby and believe more in their ability to be a parent.



Try not to get mad at a baby because he might learn to be mean when he grows up.

Students in ROE learn about a baby's brain development. Almost all students (97%) reported learning that it is important for a baby's brain development and growth that they are loved and cared for.

### Conclusion

So far our researchers have evaluated ROE's impact on children up to three years after program completion. Results show an increase in social/emotional understanding and pro-social behaviour and a decrease in aggression compared to children who do not participate. Children become more caring, helpful and kind, and feel more accepted by their peers. They also have greater knowledge of what to do as a parent. These qualities are not only important in their own right, but also have positive, longer term implications for the future well-being of children.

Our results suggest ROE is a protective factor against aggression and holds promise for reducing the intergenerational cycles of violence and poor parenting. Research results on the effectiveness of the program have shown consistently positive outcomes over various evaluation years, geographical areas, samples, methodologies, and data sources.

1. Schonert-Reichl, K. A., Smith, V., Buote, D., & Jaramillo, A. (2007, June). Relational and contextual considerations in the evaluation of a school-based social emotional competence promotion program. In B. Sokol (Chair), Social interaction and the contexts of socio-moral development. Symposium presented at the annual meeting of the Jean Piaget Society, Amsterdam, The Netherlands.

Schonert-Reichl, K. A. (2008, Dec.). The school-based promotion of children's social and emotional competence: Delimiting processes and mechanisms. Invited lecture, Zigler Center in Child Development and Social Policy, Yale University, New Haven, CT.

2. Santos R.G., Chartier M.J., Whalen, J.C., Chateau D., Boyd L. Effectiveness of the Roots of Empathy (ROE) Program in Preventing Aggression and Promoting Prosocial Behavior: Results from a Cluster Randomized Controlled Trial in Manitoba. Poster presented at the Banff Conference on Behavioral Sciences, Banff, March 2008.

3. Rolheiser, C., and Wallace D. (2005) The Roots of Empathy Program as a Strategy for Increasing Social and Emotional Learning. OISE.

4. Berkowitz, M., and Bier, M. (2005) What Works in Character Education: A Research Driven Guide for Educators. Character Education Partnership.

5. Payton, J., Weissberg, R., Durlak, J., Dymnicki, A., Taylor, R., Schellinger, K., and Pachan, M. (2008) The positive impact of social and emotional learning for kindergarten to eighth-grade students. CASEL.

6. Tremblay, R. Nagin, D., Séguin, J., Zoccolillo, M., Zelazo, P., Boivin, M., Pérouse, D., and Japel, C. (2004) Physical aggression during early childhood: trajectories and predictors. *Pediatrics*, 114, e43-e50.

7. Vitaro, F., Brendgen, M., Larose, S., and Tremblay, R.E. (2005) Kindergarten disruptive behaviours, protective factors, and educational achievement by early adulthood. *Journal of Educational Psychology*, 97 (4): 617-629.

8. Caprara, G., Barbarelli, C., Pastorelli, C., Bandura, A., and Zimbardo, P. (2000) Prosocial foundations of children's academic achievement. *Psychological Science*, 11 (4), 302-306.

Our mission is to build a more peaceful, caring and civil society through the development of empathy in children and adults.

Our vision is to change the world, child by child.



Roots of Empathy  
Racines de l'empathie

250 Ferrand Drive, Suite 800  
Toronto, ON CANADA M3C 4B6  
tel:416-944-3001 fax:416-944-9295  
Charitable Number: 89643 4818 RR0001  
Roots of Empathy is a registered trademark.  
research@rootsofempathy.org  
[www.rootsofempathy.org](http://www.rootsofempathy.org)