Building Self-Efficacy in Peer Relations: Evaluation of a School-Based Intervention

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Building Self-Efficacy in Peer Relations: Evaluation of a School-Based Intervention

by

Shaun Davis

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Graduate Department of Clinical Psychology
George Fox University
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in Clinical Psychology

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Building Self-Efficacy in Peer Relations: Evaluation of a School-Based Intervention

by

Shaun Davis

has been approved

by the

Graduate School of Clinical Psychology

George Fox University

as a dissertation for the PsyD Degree

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Mary Peterson, PhD, ABPP, Chair

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Elizabeth Hamilton, PhD

Kathleen Gathercoal, PhD
This study employs a longitudinal, cohort-sequential design (Schaie, 1965) to evaluate the effectiveness of Kelso’s Choice (KC), a behavioral intervention program, in 3 cohorts of 3rd and 4th grade students from a rural elementary school over the course of 2 academic years. The study evaluates the impact of KC on development of social self-efficacy, as measured in 2 domains: (a) social self-efficacy, as measured by student reports from the Children’s Self-Efficacy in Peer Interaction (CSPI; Wheeler & Ladd, 1982), the Social Problem Solving Measure (SPSM; Dodge, Bates, & Pettit, 1990) and teacher reports from the Social Competence Scale (SCS; Conduct Problems Prevention Research Group, 1991) and the teacher survey of KC principles used by students in the classroom and on the playground; and, (b) student behavior as measured by the school’s referral system.

This study revealed 4 major findings: (a) Kelso’s Choice contributes to the development of student’s social self-efficacy and demonstrates a “staying power” over time; (b) the greatest gains in student social self-efficacy were evidenced in the first year of exposure; (c) teachers are
likely to recognize changes in student behavior and social skills before students’ self-perception changes; and (d) development of students’ social self-efficacy appears to depend on consistent systemic reinforcement.
Acknowledgements

I would like to express my gratitude to my dissertation committee for their support and encouragement. Dr. Mary Peterson, my committee chair, guided me through the research process with wisdom and patience. She helped me produce a final product that was both meaningful and professional. Dr. Elizabeth Hamilton challenged me to follow my passion and provided the opportunity to explore my interests in an underserved population. Dr. Kathleen Gathercoal spent countless hours helping me devise a workable statistical model for my project. I offer my sincere appreciation for the learning opportunities provided by my committee.

My project would not have been possible without the support from the Rural School District Consortium. The 3rd and 4th grade teachers at Yamhill-Carlton Elementary School devoted hours to completing questionnaires and allowed me to use class time to collect student data. The administrative assistants helped collect demographic data, and the administrators were invaluable in helping define the needs of the population.

I owe my family my overwhelming gratitude. I am thankful to my parents, Mr. and Mrs. Glen Merriman, who taught me to set my goals high and never give up. My daughters, Heather, Natalie, and Danielle, were my inspiration for returning to graduate school. Hopefully, I have modeled well that education is a lifelong pursuit. And, finally, to my husband, Arlin—I cannot express how much I appreciate your selfless support. You made all of this possible with your unwavering support. You make my dreams come true.
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Chapter 1
Introduction

A growing body of research clearly demonstrates the importance of social skill development and effective peer relationships in determining a child’s developmental trajectory (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Enhancing a child’s sense of self-efficacy is an important first step towards developing prosocial skills that are necessary for building durable peer alliances, such as “caring, sharing, helping, and empathic concern towards others” (Alessandri, 2009, p. 1229). Childhood perception of self-efficacy has been found to be a strong predictor of the type of friends chosen during adolescence. Furthermore, self-efficacy has a significant impact on academic performance and behavioral outcomes throughout the secondary education years (Caprara, Barbaranelli, Pastorelli, & Cervone, 2004; Caprara, Vecchione, Alessandri, Gerbino, & Barbaranelli, 2011). Children’s belief about their ability to succeed academically, socially, and emotionally has far-reaching ramifications for their future. These beliefs are a better predictor of their occupational aspirations than their actual academic prowess or achievement (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001). Interventions designed to promote children’s social competence, including what they believe about their abilities to make good decisions, present a positive impact on their mental health, sexual practices, and educational and economic achievement as adults (Hawkins, Kosterman, Catalano, Hill, & Abbott, 2005, 2008). It is during these early years that children are most responsive to
preventive interventions that build interpersonal skills and create a positive developmental trajectory that will be maintained into early adulthood (Hawkins et al., 2005).

**Conflict Resolution: An Important Developmental Skill**

Peer conflict often emerges as a prominent developmental challenge during early childhood as children begin to interact socially in the school environment. Children who are unable to amicably resolve problematic interactions with their peers are at risk for behavioral and psychological maladjustment and social isolation (Parker, Rubin, Erath, Wojlawowicz, & Buskirk, 2006).

**School Environment: Combination of Risk and Opportunity**

Children learn important patterns of behavior from their social environments, which makes the school setting an optimal environment to develop pro-social skills. (Catalano, Haggerty, Oesterle, Fleming, & Hawkins, 2004). Social learning begins at a young age, and in elementary school, children form affiliations that impact their attitudes towards relationships and development of interpersonal skills. Their interactions with peers is a proven predictor of substance use, delinquent behavior, relational violence and victimization (Menard & Grotpeter, 2011). School-based behavioral health delivery systems provide a means of introducing social and emotional learning interventions to children from diverse backgrounds during the critical early years of development (Payton et al., 2008).

**Rural School Districts**

Rural school districts face unique challenges across the United States. More than 9.6 million students are enrolled in rural school districts, which represents over 20% of all public school students in the nation. These districts often have fewer financial and resources than their
urban counterparts. Additionally, rural school districts serve a population with a growing ethnically diverse population and where more than 40% of the students live in poverty (Johnson & Strange, 2007; Strange, Johnson, Showalter, & Klein, 2012). Access to behavioral and mental health is a significant concern among these schools (Langley, Nadeem, Kataoka, Stein, & Jaycox, 2010). School administrators are challenged to find effective means of meeting their students’ academic and social/behavioral needs. Unfortunately, finding evidence-based interventions presents a difficult task, as the research of such interventions in rural school settings is limited (Schaeffer et al., 2005). District administrators and school principals often rely on school counselors to select curriculum that will best serve the broad student needs.

**School-Based Interventions**

Research has shown that school-based interventions (SBIs) positively impact a wide range of psychosocial developmental issues. SBIs are effective in addressing physical issues, such as pediatric obesity (American Dietetic Association, 2006) and childhood fitness (Kriemler et al., 2011). Social and emotional learning is also well served by SBIs. A survey of literature reveals positive evidence for programs that range from anti-bullying (Vreeman & Carroll, 2007) and ADHD behavior regulation (DuPaul, Eckert, & Vilardo, 2012) to reducing aggressive and disruptive behaviors (Wilson & Lipsey, 2007). Likewise, SBIs offer significant benefit in addressing the broad domains of anxiety and depression (Mychailyszyn, Brodman, Read, & Kendall, 2012; Stallard et al., 2014), as well as specific emotional disturbances, such as suicidal tendencies (Robinson et al., 2013).

Delivery of timely, effective, and evidence-based services in a school setting mitigates the problem of access to mental health care and produces significant and positive impact on the
overall functioning of students (Peterson, Hamilton, & Russell, 2009). Interventions adapted to
the school setting allow school systems to make efficient use of faculty assets, reduce the time
and resources spent on behavior and peer interaction problems, help build self-efficacy skills in
students, and improve academic achievement (Durlak et al., 2011).

**Kelso’s Choice**

One such intervention is Kelso’s Choice (KC), a conflict management skills program that
was developed more than 20 years ago by two elementary school guidance counselors
(www.kelsoschoice.com). The authors created the curriculum based on the Social
Developmental Strategy (SDS; personal communication, November 12, 2013). The SDS
framework is based on longitudinal research and the Social Developmental Model (SDM) by
Hawkins and Catalano (http://www.channing-bete.com/prevention-programs/risk-protective-
factors.html). The SDM is a complete model of behavioral development that describes the
interaction between problem and positive behaviors, and the SDS defines the pathway to healthy
behaviors as outlined by the SDM. The SDS emphasizes three important factors to buffer
children’s exposure to risk factors and increase development of positive behaviors: healthy
beliefs and clear standards; attachment and commitment to families, schools, communities, and
peer groups; and the nurturing of the child’s individual characteristics. The goal of the SDS is to
develop healthy behaviors in all children and youth. To do so, adults must model and
communicate healthy values and clear standards for behavior to the children (Catalano &
Hawkins, 1996).

Kelso’s Choice strives to make use of the three “bonding” conditions detailed by the SDS
to help empower children to solve problems and build a sense of self-efficacy in their peer
relations. According to Catalano and Hawkins (1996), three elements shape a child’s relationship with adults; and these elements need to be clearly defined. First, children need developmentally appropriate opportunities for meaningful involvement with a positive social group or individual. Second, children need the emotional, cognitive, social, and behavioral skills to successfully take advantage of opportunities. Third, children must be recognized for their involvement. Recognition sets up a reinforcing cycle in which children continue to look for opportunities, learn skills, and as a result receive recognition (www. Channing-bete.com). The efficacy of the SDM has demonstrated over the last 30 years its ability to identify risk and protective factors that predict behaviors (Catalano et al., 2004; Hawkins, Arthur, & Catalano, 1995; Hawkins et al., 2005, 2008; Lonczak et al., 2001).

Schools which have implemented Kelso’s Choice report results that are consistent with the SDM research. Teachers report that students are better able to solve problems on their own and there are decreases in the number of rule infractions and aggressive conflicts between students. Overall, anecdotal evidence purports that Kelso’s Choice creates more pleasant classroom and school environments. Additionally, Kelso’s Choice is mentioned in Character Education in America’s Blue Ribbon Schools: Best Practices for Meeting the Challenge (Murphy, 2003) and 1001 Great Ideas for Teaching and Raising Children with Autism or Asperger’s (Murphy, 2003). Finally, the Anchorage School District reports that Kelso’s Choice was a part of the successful implementation of the Alaska Initiative for Community Engagement (2005; www.kelsoschoice.com). However, despite Kelso’s Choice being a popular curriculum among school counselors, there is a lack of empirical research demonstrating the effectiveness of the program. This research sought to fill the gap by exploring the impact of the Kelso’s Choice
curriculum on the perceived self-efficacy of students in peer relationships. In addition to the self-report measures, this study assessed the program’s impact on the ecologically relevant variable of behavioral referrals, specifically asking, will participation in the program reduce the number of behavioral referrals students receive? The outcome was measured in three cohorts of 3rd and 4th grade students over the course of two academic years using the Children’s Self-Efficacy in Peer Interactions (CSPI; Wheeler & Ladd, 1982) and the Social Problem Solving Measure (SPSM; Dodge, Bates, & Pettit, 1990) and teacher reports from the Social Competence Scale (SCS; Conduct Problems Prevention Research Group, 1991) and the teacher survey of KC principles used by students in the classroom, and the school disciplinary referral database.

Classroom teachers taught Kelso’s Choice curriculum, kindergarten through 4th grade in a rural elementary school in Yamhill County, Oregon. We hypothesized that students would demonstrate improvement in social self-efficacy as measured by: (a) increases in student self-report of self-efficacy in peer interactions, social problem solving, and teacher report of improvement in social competence; and, (b) decreases in behavioral referrals.
Chapter 2

Methods

Research Model

Methodology of this study was modeled on the cohort-sequential design presented by Schaie (1965). This design was selected to allow for multiple levels of comparison within and between groups. The cohort-sequential model provided means to reduce natural childhood developmental change as a confounding factor in analysis of the results.

Participants

Participants included all of the 3rd and 4th grade students ($N = 246$) from six classes (three 3rd grade and three 4th grade) at Yamhill Carlton Elementary School (YCES), composed of both male and female students ranging in ages from 7 to 10 years old. The majority of students was eligible for free and reduced lunch, demonstrating one of the unique needs of an underserved population. Students were followed in three cohorts over the course of two school years. KC was implemented as part of daily classroom instruction, therefore, no inclusion or exclusion criteria was warranted as part of the participant selection.

Procedures

The Kelso’s Choice curriculum was introduced in September 2013. YCES faculty members and support staff were trained by the school counselor for appropriate implementation of the Kelso’s Choice curriculum during the first quarter of the 2013-2014 school year. Classroom instruction of Kelso’s Choice principles began in the second quarter of the school year with specific Kelso principles emphasized each month. Support staff on the playground,
the lunchroom, and other outside-of-class activities, supplemented classroom instruction. Instruction and reinforcement of KC principles continued during the 2014-2015 academic year, with the resource room coordinator as the primary instructor. Although participation in the classroom instruction was compulsory, participants’ guardians were given opportunity to have students opt out of the evaluative portion of the study by signing a letter of dissent (see Appendix A). The CSPI and SPSM measures were administered to students in each of the six 3rd and 4th grade classrooms four times: before KC instruction began (Fall 2013), at the end of the first year of implementation (Spring 2014), at the beginning of the second year of KC instruction (Fall 2014), and at the end of the second year of KC instruction (Spring 2015). Teachers completed the SCS measures for individual students and the classroom survey at the same intervals. All instruments can be found in Appendix B. Additionally, monthly interval measures of behavior incidences were collected for both years of the study.

**Instruments**

**The Children’s Self-Efficacy in Peer Interactions (CSPI).** The Children’s Self-Efficacy in Peer Interactions (Wheeler & Ladd, 1982) is a 22-item questionnaire designed to measure youths’ perceptions of their ability to be successful in social interactions. This includes their ability to be persuasive towards peers in positive ways. The questionnaire contains two subscales that measure social self-efficacy in conflict and non-conflict situations. It is designed for children ages 7-10 years old in grades 3-8.

**Validity.** Correlations between the CSPI and the Peer Rating of Social Influence (PRSI) yielded a concurrent validity coefficient of .28 for third graders and .23 for fourth graders. Correlations between the CSPI and the Play Nomination Sociometric Measure (PNSM) yielded a
concurrent validity coefficient of .27 for third graders and .24 for fourth graders. Correlations between the CSPI and the Teacher Rating of Social Efficacy (TRSE) yielded a concurrent validity coefficient of .25 for third graders and .40 \((p < .01)\) for fourth graders.

**Reliability.** Alpha for the conflict situation subscale is .85 and .73 for non-conflict situations subscale. Alpha for the total scale is .85.

**The Social Problem Solving Measure.** The Social Problem Solving Measure (Dodge et al., 1990) is an 8-item instrument designed to measure children’s aggressive and competent interpersonal negotiation strategies in proactive situations. The measure provides two subscales: the aggressive strategy and the competent strategy.

**Reliability.** Internal consistency for the aggressive strategy subscale is .67 and for the competent strategy subscale is .60.

**The Social Competence Scale.** The Social Competence Scale (Conduct Problems Prevention Research Group, 1991) is a 19-item questionnaire designed to measure teachers’ perceptions of a child’s social competence. The questionnaire contains two subscales that measure prosocial behavior and emotion regulation. It is designed for elementary school children, grades 1-6.

**Teacher survey.** Using a teacher survey previewed on the Kelso’s Choice website, teachers reported their perceptions of the impact of the Kelso’s Choice principles on classroom and playground behavior.

**School Disciplinary Data.** Beyond student and teacher report data, school disciplinary data were collected for 3rd and 4th grade students. The data came from two sources: the school referral system for serious infractions and the minor behavioral incidents outside of classroom
instructional time, which were tracked by the behavioral classroom instructional aide. The date
and nature of each disciplinary action taken were documented and coded within four severity
domains: high frequency nuisance behaviors, aggression towards peers, aggression towards
property, and aggression towards authority.
Chapter 3

Results

This study explored the ability of Kelso’s Choice (KC) curriculum to contribute to children’s social self-efficacy development in a sample of 3rd and 4th grade students from a rural elementary school. The impact of KC was measured in two domains: (a) social self-efficacy, as measured by student reports from the Children’s Self-Efficacy in Peer Interactions (CSPI; Wheeler & Ladd, 1982) and the Social Problem Solving Measure (SPSM; Dodge et al., 1990) and teacher reports from the Social Competence Scale (SCS; Conduct Problems Prevention Research Group, 1991) and the teacher survey of KC principles used by students in the classroom and on the playground; and, (b) student behavior as measured by the school’s referral system.

Demographic, school disciplinary behavior reports, and the CSPI, SPSM, and SCS measures were collected for the majority of participants. Four students were removed from the sample due to parent request via consent forms. Retention rate for those participating in the study was high; 93% (N = 228) of the 246 original students completed the study, 18 students didn’t complete due to transfers out of the school district. Three cohorts of students participated in the project: Cohort A consisted of three 4th grade classrooms of students from 2013-14; Cohort B consisted of students who were in three 3rd grade classrooms during 2013-14 and three 4th grade classrooms during 2014-15; and Cohort C, which was three 3rd grade classrooms of students from 2014-15. The final sample size for data analysis was 228 (Cohort A = 82, Cohort B = 73,
Cohort C = 73). Fifty-four percent of participants were boys (N = 124), and 46% were girls (N = 104). Table 1 displays the breakdown of gender by cohort. Eighty-one percent of students were European American (N = 185), 13% were Latino/a (N = 29), 0.4% were Asian (N = 1), 0.4% were African American (N = 1), 4% identified as multiracial (N = 8). Ethnicity information was not available for 2% of the sample (N = 4).

Table 1

<table>
<thead>
<tr>
<th>Gender Information by Cohort</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohort</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>A</td>
<td>44</td>
<td>54%</td>
</tr>
<tr>
<td>B</td>
<td>46</td>
<td>63%</td>
</tr>
<tr>
<td>C</td>
<td>34</td>
<td>47%</td>
</tr>
<tr>
<td>Total</td>
<td>124</td>
<td>54%</td>
</tr>
</tbody>
</table>

Each cohort participated in at least two of the data collection points. Additionally, each cohort/time combination was assigned an identification number (ID). Figure 1 displays cohort participation and ID.

Due to the cohort sequential model used in this study, each dependent variable was analyzed using a series of independent and paired sample t-tests with a Bonferroni correction to control for Type 1 error. As a result of the correction, significance was evaluated with α = 0.005. Results were analyzed using effect sizes in order to avoid inflating the probability of Type I error, due to the number of t-tests conducted or assumptions violated. Cohen’s d (Cohen, 1988) is reported for independent samples and δRM (Morris & DeShon, 2002) is reported for paired samples. See Table 12 for definitions of the effect size ranges.
CSPI – Student Report Results

A series of independent and paired sample t-tests were employed for the two subscales, which measure social self-efficacy in conflict and non-conflict situations. Table 2 displays the means, standard deviations, and number of participants for each cohort/time grouping. The majority of distributions of responses were either not skewed or not skewed in opposite directions. Additionally, the assumption of equal variance was met, unless otherwise noted. When the assumption of equal variance was violated, Welch’s t-tests were employed and reported in the results tables. T-test results are reported in Table 3. Results were analyzed using effect sizes in order to avoid inflating the probability of Type I error, due to the number of t-tests conducted or assumptions violated.

As reported in Table 11, KC had a moderate positive effect in both conflict and non-conflict situations when 3rd grade students with one year of exposure were compared to 3rd grade students with no previous KC exposure. Fourth grade results showed that previous exposure resulted in a moderate negative effect. A small effect in conflict and non-conflict situations was
observed prior to KC implementation due to maturation; however, at the end of the first year of KC exposure, the effect of maturation on self-efficacy in conflict situations increased to a moderate effect.

Table 2

<table>
<thead>
<tr>
<th>Cohort/Time ID</th>
<th>Conflict Situations Subscale</th>
<th>Non-conflict Situations Subscale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>1</td>
<td>31.67</td>
<td>5.84</td>
</tr>
<tr>
<td>2</td>
<td>32.07</td>
<td>5.43</td>
</tr>
<tr>
<td>3</td>
<td>30.78</td>
<td>5.14</td>
</tr>
<tr>
<td>4</td>
<td>29.76</td>
<td>6.62</td>
</tr>
<tr>
<td>5</td>
<td>29.91</td>
<td>3.07</td>
</tr>
<tr>
<td>6</td>
<td>31.16</td>
<td>6.53</td>
</tr>
<tr>
<td>7</td>
<td>33.03</td>
<td>5.34</td>
</tr>
<tr>
<td>8</td>
<td>31.72</td>
<td>6.54</td>
</tr>
</tbody>
</table>

Post-hoc, paired sample t-test was conducted to determine if cohort B students maintained the same levels of self-efficacy in conflict and non-conflict situations over the summer break. No significant difference was noted in either condition; therefore it appears that students who participated in both years of evaluation maintained their skills over the summer break. An independent t-test was employed to compare 4th grade students with no prior exposure to KC with 3rd grade students with one year of KC exposure. Third grade students demonstrated a moderate effect in conflict situations after one year of KC instruction; therefore it appears that KC exposure may allow younger students to match the skills of an older cohort when faced with
conflict situations. Table 4 shows the results of post-hoc t-tests and Table 11 shows the effect sizes.

Table 3

<table>
<thead>
<tr>
<th>Tests</th>
<th>Cohort/Time ID Pairs</th>
<th>Conflict Situations Subscale</th>
<th>Non-conflict Situations Subscale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>( t )</td>
<td>( df )</td>
</tr>
<tr>
<td>Effect of prior exposure (independent t-tests)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>3 vs. 7</td>
<td>-3.19</td>
<td>136</td>
</tr>
<tr>
<td>b</td>
<td>1 vs. 5</td>
<td>1.79</td>
<td>146</td>
</tr>
<tr>
<td>c</td>
<td>4 vs. 8</td>
<td>-1.95</td>
<td>137</td>
</tr>
<tr>
<td>d</td>
<td>2 vs. 6</td>
<td>0.93</td>
<td>148</td>
</tr>
<tr>
<td>Amount of change over time (paired sample t-tests)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>1 vs. 2</td>
<td>-1.02</td>
<td>78</td>
</tr>
<tr>
<td>f</td>
<td>3 vs. 4</td>
<td>1.24</td>
<td>65</td>
</tr>
<tr>
<td>g</td>
<td>5 vs. 6</td>
<td>-1.50</td>
<td>66</td>
</tr>
<tr>
<td>h</td>
<td>7 vs. 8</td>
<td>1.15</td>
<td>67</td>
</tr>
<tr>
<td>Effect of maturation (independent t-tests)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>1 vs. 3</td>
<td>0.49</td>
<td>145</td>
</tr>
<tr>
<td>j</td>
<td>2 vs. 4</td>
<td>2.30(^{b})</td>
<td>129.25</td>
</tr>
</tbody>
</table>

Note. Bonferroni correction, \( \alpha = 0.005 \).
\(^{a}\)1-tailed; all other results are 2-tailed.
\(^{b}\)Welch’s \( t \) used due to unequal variances.
Table 4

<table>
<thead>
<tr>
<th>Tests</th>
<th>Cohort/Time ID Pairs</th>
<th>Conflict Situations Subscale</th>
<th>Non-conflict Situations Subscale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>t</td>
<td>df</td>
</tr>
<tr>
<td>Maintenance of skills over the summer (paired sample t-tests)</td>
<td>k 4 vs. 5</td>
<td>0.02</td>
<td>64</td>
</tr>
<tr>
<td>3rd grade student w/KC vs. 4th grade student no KC (independent t-tests)</td>
<td>1 1 vs. 7</td>
<td>-1.47</td>
<td>147</td>
</tr>
</tbody>
</table>

Note. Bonferroni correction, $\alpha = 0.005$.
\(^a\)1-tailed; all other results are 2-tailed.
\(^b\)Welch’s t used due to unequal variances.

SPSM – Student Report Results

A series of independent and paired sample t-tests were employed for the two subscales, which measure children’s aggressive and competent interpersonal negotiation strategies in proactive situations. Table 5 displays the means, standard deviations, and number of participants for each cohort/time grouping. The majority of distributions of responses were either not skewed or not skewed in opposite directions. Additionally, the assumption of equal variance was met, unless otherwise noted. When the assumption of equal variance was violated, Welch’s t-tests were employed and reported in the results tables. T-test results are reported in Table 6. Results were analyzed using effect sizes in order to avoid inflating the probability of Type I error, due to the number of t-tests conducted or assumptions violated.
As reported in Table 11, one year of KC exposure had moderate effect on 3rd grade students’ use of competent problem solving strategies when compared at the beginning of year 1 and year 2 and moderate increase of aggressive problem solving strategies when compared at the end of year 1 and year 2. Prior exposure had a large effect on 4th grade students’ use of aggressive strategies when compared at the beginning of year 1 and year 2 and a moderate negative impact on both aggressive and competent problem solving strategies when compared at the end of year 1 and year 2.

Cohort A experienced a very large effect on use of competent strategies and a moderate improvement on use of aggressive strategies in year 1. Cohort B reported a moderate effect on both aggressive and competent problem solving strategies during year 1, and a very large decrease of competent strategies in year 2. Cohort C demonstrated only small effect in year 2.
### Table 6

**SPSM T-test Results**

| Tests | Cohort/Time ID Pairs | Aggressive Strategies Subscale | | Competent Strategies Subscale |
|-------|----------------------|--------------------------------|--------------------------------|
|       |                      | $t$ | $df$ | $p$ | $t$ | $df$ | $p$ |
| **Effect of prior exposure (independent t-tests)** | | | | | | | |
| a     | 3 vs. 7              | -0.39<sup>b</sup> | 127.33 | 0.70 | -2.62 | 132 | 0.005<sup>a</sup> |
| b     | 1 vs. 5              | 0.51<sup>b</sup> | 119.30 | 0.61 | -0.26 | 143 | 0.80 |
| c     | 4 vs. 8              | -2.43<sup>b</sup> | 64 | 0.009<sup>a</sup> | -0.39 | 130 | 0.70 |
| d     | 2 vs. 6              | -2.51<sup>b</sup> | 62 | 0.007<sup>a</sup> | 2.52<sup>b</sup> | 116.56 | 0.006<sup>a</sup> |
|       |                      | | | | | | |
| **Amount of change over time (paired sample t-tests)** | | | | | | | |
| e     | 1 vs. 2              | 3.90 | 73 | <0.001 | -2.38 | 73 | 0.02 |
| f     | 3 vs. 4              | 3.01 | 61 | 0.004 | -2.72 | 61 | 0.008 |
| g     | 5 vs. 6              | 0.54 | 60 | 0.59 | 0.92 | 60 | 0.36 |
| h     | 7 vs. 8              | 0.53 | 63 | 0.60 | -0.46 | 63 | 0.65 |
|       |                      | | | | | | |
| **Effect of maturation (independent t-tests)** | | | | | | | |
| i     | 1 vs. 3              | 2.12<sup>b</sup> | 114.05 | 0.04<sup>b</sup> | 1.45 | 138 | 0.15 |
| j     | 2 vs. 4              | NaN(?) | 144 | NaN(?) | 2.01 | 144 | 0.05 |

Note. Bonferroni correction, $\alpha = 0.005$.

<sup>a</sup>1-tailed; all other results are 2-tailed.

<sup>b</sup>Welch’s t used due to unequal variances.

Maturation had a moderate effect prior to KC exposure on use of competent problem solving strategies, but 3<sup>rd</sup> grade students reported moderately fewer aggressive strategies than 4<sup>th</sup> grade students. However, at the end of year 1, maturation had no effect on aggressive strategies and maintained a moderate effect on competent strategies.

Post-hoc, paired sample t-test was conducted to determine if cohort B students maintained similar problem solving skills over the summer break. Students from Cohort B
BUILDING SELF-EFFICACY

reported moderate increase of aggressive strategies and very little change in competent strategies; therefore it appears that students who participated in both years of evaluation maintained their competent problem solving skills over the summer break with some regression to previous levels of aggressive strategies. An independent t-test was employed to compare 4th grade students with no prior exposure to KC with 3rd grade students with one year of KC exposure. Third grade students demonstrated a moderate effect in use aggressive strategies and a small effect in use of competent strategies after one year of KC instruction; therefore it appears that KC exposure may allow younger students to match the skills of an older. Table 7 shows the results of post-hoc t-tests and Table 11 shows the effect sizes.

Table 7

*SPSM Post-hoc T-test Results*

<table>
<thead>
<tr>
<th>Tests</th>
<th>Cohort/Time ID Pairs</th>
<th>Aggressive Strategies Subscale</th>
<th>Competent Strategies Subscale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance of skills over the summer (paired sample t-tests)</td>
<td>k 4 vs. 5</td>
<td>-3.00 62 0.004</td>
<td>0.50 62 0.62</td>
</tr>
<tr>
<td>3rd grade student w/KC vs. 4th grade student no KC (independent t-tests)</td>
<td>l 1 vs. 7</td>
<td>1.7b 132.85 0.05a</td>
<td>0.93b 139.41 0.36</td>
</tr>
</tbody>
</table>

Note. Bonferroni correction, \( \alpha = 0.005 \).

*1-tailed; all other results are 2-tailed.

*Welch’s t used due to unequal variances.*

**SCS – Teacher Report Results**

A series of independent and paired sample t-tests were employed for the two subscales, which measure teachers’ perceptions of a child’s prosocial behavior and emotion regulation.
Table 8 displays the means, standard deviations, and number of participants for each cohort/time grouping. The majority of distributions of responses were either not skewed or not skewed in opposite directions. Additionally, the assumption of equal variance was met, unless otherwise noted. When the assumption of equal variance was violated, Welch’s t-tests were employed and reported in the results tables. T-test results are reported in Table 9. Results were analyzed using effect sizes in order to avoid inflating the probability of Type I error, due to the number of t-tests conducted or assumptions violated.

Table 8

<table>
<thead>
<tr>
<th>Cohort/Time ID</th>
<th>Prosocial Subscale</th>
<th></th>
<th>Emotion Regulation Subscale</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>1</td>
<td>39.80</td>
<td>10.15</td>
<td>79</td>
<td>27.61</td>
</tr>
<tr>
<td>2</td>
<td>43.96</td>
<td>9.31</td>
<td>79</td>
<td>31.26</td>
</tr>
<tr>
<td>3</td>
<td>35.13</td>
<td>10.72</td>
<td>68</td>
<td>24.52</td>
</tr>
<tr>
<td>4</td>
<td>41.01</td>
<td>10.11</td>
<td>68</td>
<td>29.57</td>
</tr>
<tr>
<td>5</td>
<td>41.88</td>
<td>11.05</td>
<td>68</td>
<td>29.94</td>
</tr>
<tr>
<td>6</td>
<td>43.50</td>
<td>9.46</td>
<td>68</td>
<td>30.59</td>
</tr>
<tr>
<td>7</td>
<td>37.97</td>
<td>9.21</td>
<td>73</td>
<td>27.70</td>
</tr>
<tr>
<td>8</td>
<td>38.66</td>
<td>9.73</td>
<td>73</td>
<td>27.04</td>
</tr>
</tbody>
</table>

As reported in Table 11, prior exposure to KC had a moderate effect on 3rd grade students on both subscales when compared at the beginning and end of both year 1 and 2. Fourth grade students experienced a moderate effect due to prior exposure to KC in emotion regulation when compared at the beginning of year 1 and year 2.
Table 9

**SCS T-test Results**

<table>
<thead>
<tr>
<th>Tests</th>
<th>Effect of prior exposure (independent t-tests)</th>
<th>Effect of maturation (independent t-tests)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohort/Time ID Pairs</td>
<td>t</td>
<td>df</td>
</tr>
<tr>
<td>Effect of prior exposure (independent t-tests)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>3 vs. 7</td>
<td>-1.69</td>
</tr>
<tr>
<td>b</td>
<td>1 vs. 5</td>
<td>-1.19</td>
</tr>
<tr>
<td>c</td>
<td>4 vs. 8</td>
<td>1.41</td>
</tr>
<tr>
<td>d</td>
<td>2 vs. 6</td>
<td>0.21</td>
</tr>
<tr>
<td>Amount of change over time (paired sample t-tests)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>1 vs. 2</td>
<td>-6.78</td>
</tr>
<tr>
<td>f</td>
<td>3 vs. 4</td>
<td>-7.35</td>
</tr>
<tr>
<td>g</td>
<td>5 vs. 6</td>
<td>-2.01</td>
</tr>
<tr>
<td>h</td>
<td>7 vs. 8</td>
<td>-0.76</td>
</tr>
<tr>
<td>Effect of maturation (independent t-tests)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>1 vs. 3</td>
<td>2.71</td>
</tr>
<tr>
<td>j</td>
<td>2 vs. 4</td>
<td>0.21</td>
</tr>
</tbody>
</table>

Note. Bonferroni correction, \( \alpha = 0.005 \).

\( ^a \) 1-tailed; all other results are 2-tailed.

\( ^b \) Welch’s t used due to unequal variances.

Time demonstrated a large effect on Cohort A in prosocial skills and a very large effect on emotion regulation. Cohort B experienced a very large effect on both prosocial and emotion regulation skills due to time. Cohort C reported moderate change over time in prosocial skills. Maturation had a moderate effect on prosocial and emotion regulation skills when measured at the beginning and end of year 1.
Post-hoc, paired sample t-test was conducted to determine if cohort B students maintained similar problem solving skills over the summer break. Students from Cohort B reported small or very small effect on prosocial and emotion regulation skills; therefore it appears that students who participated in both years of evaluation maintained their skills over the summer break. An independent t-test was employed to compare 4th grade students with no prior exposure to KC with 3rd grade students with one year of KC exposure. Third grade students were slightly less skilled on the prosocial scale than 4th grade students, but there was no effect in emotion regulation after one year of KC instruction; therefore it appears that KC exposure may allow younger students to match the skills of an older. Table 10 shows the results of post-hoc t-tests and Table 11 shows the effect sizes.

Table 10

<table>
<thead>
<tr>
<th>Tests</th>
<th>Cohort/Time ID Pairs</th>
<th>Prosocial Subscale</th>
<th>Emotion Regulation Subscale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$t$</td>
<td>$df$</td>
</tr>
<tr>
<td>Maintenance of skills over the summer (paired sample t-tests)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$k$ 4 vs. 5</td>
<td>-1.04</td>
<td>62</td>
<td>0.30</td>
</tr>
<tr>
<td>3rd grade student w/KC vs. 4th grade student no KC (independent t-tests)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 1 vs. 7</td>
<td>1.16</td>
<td>150</td>
<td>0.25$^a$</td>
</tr>
</tbody>
</table>

Note. Bonferroni correction, $\alpha = 0.005$.

$a^1$-tailed; all other results are 2-tailed.

$^b$Welch’s t used due to unequal variances.
### Table 11

*Subscale Effect Sizes by Cohort/Time ID Pairs*

<table>
<thead>
<tr>
<th>Tests</th>
<th>Cohort/Time ID Pairs</th>
<th>Effect Sizes</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Conflict</td>
<td>Non-Conflict</td>
<td>Aggressive</td>
<td>Competent</td>
<td>Prosocial</td>
</tr>
<tr>
<td>Effect of prior exposure (independent t-tests)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>3 vs. 7</td>
<td>-0.43</td>
<td>-0.32</td>
<td>0.00</td>
<td>-0.48</td>
<td>-0.28</td>
</tr>
<tr>
<td>b</td>
<td>1 vs. 5</td>
<td>0.38</td>
<td>-0.07</td>
<td>0.63</td>
<td>-0.05</td>
<td>-0.20</td>
</tr>
<tr>
<td>c</td>
<td>4 vs. 8</td>
<td>-0.30</td>
<td>-0.27</td>
<td>-0.35</td>
<td>-0.06</td>
<td>0.24</td>
</tr>
<tr>
<td>d</td>
<td>2 vs. 6</td>
<td>0.15</td>
<td>-0.19</td>
<td>-0.40</td>
<td>0.39</td>
<td>0.05</td>
</tr>
<tr>
<td>Amount of change over time (paired sample t-tests) $\delta_{RM}$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>1 vs. 2</td>
<td>-0.12</td>
<td>0.00</td>
<td>0.50</td>
<td>-2.00</td>
<td>-0.77</td>
</tr>
<tr>
<td>f</td>
<td>3 vs. 4</td>
<td>0.15</td>
<td>-0.06</td>
<td>0.50</td>
<td>-0.37</td>
<td>-0.89</td>
</tr>
<tr>
<td>g</td>
<td>5 vs. 6</td>
<td>-0.18</td>
<td>-0.16</td>
<td>0.07</td>
<td>3.21</td>
<td>-0.24</td>
</tr>
<tr>
<td>h</td>
<td>7 vs. 8</td>
<td>0.14</td>
<td>0.01</td>
<td>0.05</td>
<td>-0.06</td>
<td>-0.09</td>
</tr>
<tr>
<td>Effect of maturation (independent t-tests)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>1 vs. 3</td>
<td>0.16</td>
<td>0.18</td>
<td>0.29</td>
<td>0.26</td>
<td>0.45</td>
</tr>
<tr>
<td>j</td>
<td>2 vs. 4</td>
<td>0.38</td>
<td>0.15</td>
<td>0.00</td>
<td>0.31</td>
<td>0.30</td>
</tr>
<tr>
<td>Maintenance of skills over the summer (paired sample t-tests)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k</td>
<td>4 vs. 5</td>
<td>0.00</td>
<td>-0.19</td>
<td>-0.50</td>
<td>-0.05</td>
<td>-0.13</td>
</tr>
<tr>
<td>3rd grade student w/KC vs. 4th grade student no KC (independent t-tests)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l</td>
<td>1 vs. 7</td>
<td>-0.24</td>
<td>-0.13</td>
<td>0.26</td>
<td>-0.16</td>
<td>0.19</td>
</tr>
</tbody>
</table>

### Table 12

*Interpretation Information for Cohen’s $d$ and $\delta_{RM}$*

<table>
<thead>
<tr>
<th>Effect Size Label</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>0.00 – 0.20</td>
</tr>
<tr>
<td>Medium</td>
<td>0.21 – 0.50</td>
</tr>
<tr>
<td>Large</td>
<td>0.51 – 0.80</td>
</tr>
<tr>
<td>Very Large</td>
<td>&gt;0.80</td>
</tr>
</tbody>
</table>
Teacher Survey

Six 3rd and 4th grade teachers completed a classroom survey to identify how well students applied the key Kelso’s Choice components. Each of the eight skills was evaluated on a 4-point scale: 1 = not at all; 2 = sometimes; 3 = mostly; 4 = always. A series of repeated measures Analysis of Variance (ANOVA) was used to examine teacher perception of each group’s performance. The eight KC components measured were:

1. Students in my class can identify a big problem that needs adult help.
2. Students can identify an adult to whom they can report a big problem.
3. Students in my class know when to solve a little problem themselves.
4. Students know the difference between tattling and telling.
5. Students refrain from tattling.
6. Students use one or more of Kelso’s choices to solve problems in the classroom.
7. Students use one or more of Kelso’s choices to solve problems on the playground.
8. Kelso helped make my classroom a more pleasant place to teach.

The assumption of sphericity was met for all eight questions, and significant change was found for all of the domains except question 1. Figure 2 displays the mean change by question over time. See Table 13 for descriptive data and Table 14 for the ANOVA results.
Table 13

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.50</td>
<td>0.84</td>
<td>6</td>
<td>2.83</td>
<td>0.41</td>
<td>6</td>
<td>3.00</td>
<td>0.63</td>
<td>6</td>
<td>3.00</td>
<td>0.63</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>3.00</td>
<td>0.63</td>
<td>6</td>
<td>3.83</td>
<td>0.41</td>
<td>6</td>
<td>3.33</td>
<td>0.82</td>
<td>6</td>
<td>3.67</td>
<td>0.82</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>2.17</td>
<td>0.41</td>
<td>6</td>
<td>2.67</td>
<td>0.52</td>
<td>6</td>
<td>2.17</td>
<td>0.41</td>
<td>6</td>
<td>2.83</td>
<td>0.41</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>2.17</td>
<td>0.41</td>
<td>6</td>
<td>2.83</td>
<td>0.41</td>
<td>6</td>
<td>2.17</td>
<td>0.41</td>
<td>6</td>
<td>2.83</td>
<td>0.41</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>1.67</td>
<td>0.52</td>
<td>6</td>
<td>2.50</td>
<td>0.55</td>
<td>6</td>
<td>2.33</td>
<td>0.52</td>
<td>6</td>
<td>2.67</td>
<td>0.52</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>1.83</td>
<td>0.41</td>
<td>6</td>
<td>3.00</td>
<td>0.00</td>
<td>6</td>
<td>2.50</td>
<td>0.55</td>
<td>6</td>
<td>2.83</td>
<td>0.41</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>1.67</td>
<td>0.52</td>
<td>6</td>
<td>3.00</td>
<td>0.00</td>
<td>6</td>
<td>2.33</td>
<td>0.52</td>
<td>6</td>
<td>2.67</td>
<td>0.52</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>1.83</td>
<td>0.41</td>
<td>6</td>
<td>3.33</td>
<td>0.52</td>
<td>6</td>
<td>3.00</td>
<td>0.89</td>
<td>6</td>
<td>3.33</td>
<td>0.82</td>
<td>6</td>
</tr>
</tbody>
</table>

Figure 2. Teacher survey repeated measures results.
Table 14

<table>
<thead>
<tr>
<th>Q</th>
<th>F</th>
<th>df₁, df₂</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.00</td>
<td>3, 15</td>
<td>0.42</td>
</tr>
<tr>
<td>2</td>
<td>6.86</td>
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<tr>
<td>3</td>
<td>4.05</td>
<td>3, 15</td>
<td>0.03</td>
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<td>4</td>
<td>5.71</td>
<td>3, 15</td>
<td>0.008</td>
</tr>
<tr>
<td>5</td>
<td>4.03</td>
<td>3, 15</td>
<td>0.03</td>
</tr>
<tr>
<td>6</td>
<td>9.75</td>
<td>3, 15</td>
<td>0.001</td>
</tr>
<tr>
<td>7</td>
<td>9.21</td>
<td>3, 15</td>
<td>0.001</td>
</tr>
<tr>
<td>8</td>
<td>7.45</td>
<td>3, 15</td>
<td>0.003</td>
</tr>
</tbody>
</table>

Post hoc, a sequence of paired sample t-tests were conducted to see where change happened in the four times of data collection. See Table 15 for t-test results. The most consistent significant positive changes were found between the initial implementation of KC and the end-of-year measurements of year 1 and year 2. Teachers reported loss of skills over the summer break on questions 4 (knows the difference between tattling and telling) and question 7 (uses KC to solve problems on the playground). Although, teachers indicated overall improvement in students’ ability to solve problems in the classroom (question 6), students seemed to demonstrate stronger skills in this domain at the end of the first year than at the end of the second year. Finally, results demonstrated that students exhibited continued growth during the second year in knowing how to solve little problems on their own and knowing the difference between tattling and telling.
**Table 15**

*Teacher Survey Post Hoc Paired Sample T-test Results*

<table>
<thead>
<tr>
<th>Q</th>
<th>T1-T2 t</th>
<th>T1-T2 Sig</th>
<th>T1-T3 t</th>
<th>T1-T3 Sig</th>
<th>T1-T4 t</th>
<th>T1-T4 Sig</th>
<th>T2-T3 t</th>
<th>T2-T3 Sig</th>
<th>T2-T4 t</th>
<th>T2-T4 Sig</th>
<th>T3-T4 t</th>
<th>T3-T4 Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-0.71</td>
<td>0.47</td>
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<td>5</td>
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<td>-2.74</td>
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<td>0.54</td>
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<td>0.01*</td>
<td>2.24</td>
<td>0.08</td>
<td>1.00</td>
<td>0.04*</td>
<td>-1.58</td>
<td>0.18</td>
</tr>
<tr>
<td>7</td>
<td>-6.33</td>
<td>0.001*</td>
<td>-2.00</td>
<td>0.10</td>
<td>-3.87</td>
<td>0.01*</td>
<td>3.16</td>
<td>0.03*</td>
<td>1.58</td>
<td>0.18</td>
<td>-1.00</td>
<td>0.36</td>
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<td>8</td>
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<td>0.007*</td>
<td>-2.45</td>
<td>0.05*</td>
<td>-4.69</td>
<td>0.007*</td>
<td>1.58</td>
<td>0.18</td>
<td>0.00</td>
<td>1.00</td>
<td>-0.79</td>
<td>0.47</td>
</tr>
</tbody>
</table>

Note. \( df = 5 \) in all pairs.

* \( p < 0.05 \).
Referral Data

A one-way ANOVA was used to determine if disciplinary referrals were impacted by KC implementation. Three years of referrals for 3rd and 4th grade students were included in the ANOVA: the year prior to KC, 2012-2013; the year of KC implementation, 2013-2014; and the second year of KC instruction, 2014-2015. There were significant differences between the three groups, $F(2, 21) = 18.63, p < 0.0001$. The post hoc Tukey test showed that the significance was found between the implementation year and both of the other years, $p < 0.01$. However, no significance was found between the year prior to KC and the second year of KC instruction.

![3rd & 4th Grade Referrals](image)

*Figure 3. Number of disciplinary referrals for 3rd & 4th grade students.*
This study hypothesized that students would demonstrate an improvement in social self-efficacy as measured by: (a) increases in student self-report measures of self-efficacy in peer interactions, social problem-solving, and teacher report of social competence, and (b) decreases in behavioral referrals. The results of teacher and student report measures support the first hypothesis. Overall, students’ perceived improvement in their self-efficacy in peer interactions and social problem-solving due to exposure to the behavioral intervention program, Kelso’s Choice (KC). Teachers reported more consistent, positive behavioral change than students’ self-report of behavior change. However, both teachers and students reported an increase in competent problem solving strategies, particularly in the first year of exposure.

Disciplinary data results did not support the second hypothesis. Although teachers reported improved behaviors in the classroom, disciplinary referrals did not decrease over time. In fact, a significant increase of referrals was noted in the first year of KC implementation, and the second year of referral data was similar to the year prior to KC. This is likely explained by increased attention to behavior due to staff KC training (Yokoyama, Padmala, & Pessoa, 2015).

KC exhibited a longitudinal impact, as evidenced by students’ maintenance of their skills over the summer break and throughout the second year of implementation. The program demonstrated its “staying power,” as student report indicated that 3rd grade students with one year of KC instruction were able to match skills with 4th grade students who had no prior KC
exposure. Social self-efficacy skills learned in early childhood can be expected to impact students’ developmental trajectory. The skills emphasized in the KC curriculum may positively influence how they select and maintain friendships, how they interact with important adult figures, and how they address challenges during adolescence and early adulthood.

Both teachers and students perceived a decrease in behavioral problems as students learned to navigate peer conflict more competently. Students had the greatest gains in competent problem solving, prosocial behaviors, and emotion regulation, primarily in the first year of implementation. School administrators placed tremendous focus on the initial KC implementation, with monthly training didactics for teachers and support staff. Students received added reinforcement of KC principles through school wide assemblies and classroom recognition, which enabled them to receive frequent feedback on behavior that was congruent with KC principles. Similar activities occurred during the second year of implementation, however, current research affirms that introduction of novel information heightens attentional response (Raymond, Fenske, & Tavassoli, 2003). This likely explains why Kelso’s Choice had the greatest effect during the first year of implementation.

Social self-efficacy is defined as the perception of one’s ability to manage social situations appropriately. The confidence students gained as they attained social behavioral skills, such as conflict management, contributed to an improved learning environment. Individual achievements influenced the cohort and allowed greater gains as a group. The positive changes noted by teachers may have provided increased opportunity for student achievement in academic, social, and behavioral domains for every student.
Although recent research seems to imply that an increase in perceived self-efficacy allows a child to master new skills, this study suggests that students might not be aware of the positive changes in their own behavior. In this study, teachers reported improvement in students’ behavior even when students’ report failed to note improvement in their behavior. Specifically, teachers’ reported greater improvement in conflict management skills than was reported by students. Although students identified improvement in problem solving skills, they failed to note the corresponding improvement in classroom behavior, which was observed by their teachers. This lack of self-awareness is developmentally appropriate for third and fourth grade students, and we know that behavioral change can happen without insight (Bandura, 1977). In this study, development of self-efficacy was dependent on consistent systemic reinforcement of desired behaviors. This suggests that in elementary school-aged children, behavioral change may be the first-order benefit from KC and changes in perceived self-efficacy the second-order effect.

Introducing KC as a school-wide intervention proved to be an effective method for improving student self-efficacy without requiring additional personnel resources. This study implemented KC in a rural, underserved population of children from primarily low socioeconomic families. Most of the students had limited access to resources for development of important psychosocial tasks, such as improving self-efficacy. KC effectively provided social and behavioral skills training to a socially and culturally diverse group of students.

The results of this study are somewhat discrepant with outcome information provided on the KC website. For example, one testimonial reported 82% decrease in serious infractions due to KC implementation, and another school posted greater differences on the teacher survey between pre- and post-KC implementation than were found in this study. It is likely that the
noted differences are due to reporting methodology, which is not available from the anecdotal evidence on the website.

**Implications**

There are several important implications based on this study’s findings. The results provide evidence that rural schools experience a high level of benefit by employing evidence-based school wide interventions, such as KC. This empirical support for KC as an effective population-based, behavioral intervention to improve social self-efficacy in elementary school-aged children allows school to choose KC with confidence. Elementary schools can use KC school wide and improve social self-efficacy skills in the entire student population for relatively little cost. Training for faculty and staff is necessary, particularly prior to implementation, and classroom time must be devoted to intervention instruction and reinforcement, but no additional staffing or resources are required. Overall, the longitudinal benefits of successful KC implementation appear to outweigh the costs.

Behavioral interventions, such as KC, are likely to have the greatest effect during the first year of implementation due to novelty factors. Continued skill and self-efficacy development requires administrative maintenance of progressive levels of instruction and reinforcement to offset natural habituation to repetitive skill building.

Children may not feel confident in their social self-efficacy skills as quickly as they demonstrate behavioral change. The disparity between students’ perception of their social abilities and teachers’ recognition of their behavioral improvement can be remediated by improving the feedback loop between teachers and students. Children’s self-efficacy is directly
linked to adult reinforcement of appropriate behavioral improvements and is enhanced when their accomplishments are noted and encouraged.

Finally, individual improvements contribute to cohort success, making this type of behavioral intervention valuable on a systemic level. The reciprocal relationship between students’ behaviors and teacher interactions is one component of the learning environment. As teachers perceive improved classroom behavior, they spend less time on disciplinary tasks and more time on instruction and positive student exchanges. An improved classroom environment promotes students’ ability to focus on specific learning tasks and engage in classroom activities more appropriately, thereby enhancing their education. The overall experience of students and teachers fosters academic, behavioral, and psychosocial gains that increase effective and efficient use of existing resources, thus benefitting the greater school community.

**Limitations**

This research was somewhat limited by factors common to field study. The measurement tools available for this specific population, particularly the CSPI, may not have been sensitive enough to capture KC’s true impact on self-efficacy. Additionally, because the student-report measures were administered to entire classrooms at one time, there may have been some students who had difficulty completing the forms accurately due to learning challenges. The strongest results were found in the teacher-report measures. Since teachers were the KC instructors, there may have been some motivation to report stronger results. However, previous research affirms the validity of participatory action research in field settings (McTaggart, 1998).
Suggestions for Future Research

More research is needed to increase the evidence base on the effectiveness of KC on self-efficacy development. Follow up studies in the same or similar settings would contribute to increased confidence in the curriculum. It would be particularly informative to follow the three cohorts from this study to measure the longitudinal impact on student self-efficacy and behavior after termination of instruction. Although KC is designed for children as young as 5 years old, it is unknown how effective it is along the developmental trajectory. It would be beneficial to conduct research with a broader age range of students.

Equally important, continued research is needed to explore the interaction between behavior and self-efficacy. While current literature seems to purport that increased self-efficacy leads to improved behavior, the KC results suggest that teachers first recognize change in students’ behavioral patterns before students’ perception of their abilities increases. Research to focuses on the role of a reinforcing feedback loop in children’s self-efficacy development would provide important information to psychological and educational systems.

Summary

This study revealed four major findings: (a) Kelso’s Choice contributes to the development of student’s social self-efficacy and demonstrates a “staying power” over time; (b) the greatest gains in student social self-efficacy were evidenced in the first year of exposure; (c) teachers are likely to recognize changes in student behavior and social skills before students’ self-perception of behavior change; and (d) development of students’ social self-efficacy may be dependent on consistent systemic reinforcement. These findings offer a promising foundation
from which to continue studying development of self-efficacy in young children from underserved communities.
References


Appendix A

Consent Letter

February 7, 2014

Dear Parents of YCES 3rd and 4th Grade Students,

My name is Shaun Davis, and I am currently a second year doctoral student in George Fox University’s Doctor of Clinical Psychology program in Newberg, Oregon. As part of my training, I am working with students in the Yamhill Carlton School District. One part of my job is helping the elementary school develop successful programs to increase students’ social skills and reduce peer conflict. One such program is Kelso’s Choice, which is designed to help children identify the difference between “big” and “little” problems. It also teaches children how to resolve minor conflicts on their own and how to ask for adult help for more serious problems.

Kelso’s Choice is being implemented school wide at YCES. As a service to YCES, I will be conducting a study of the curriculum’s effectiveness in the 3rd and 4th grade classes. This will involve a teacher survey, as well as two questionnaires that students fill out at the beginning and end of the program. Students will complete the forms as part of their classwork and will not be asked to do any additional work outside of regular school hours. All questionnaires will be kept confidential, and the identities of students will be protected. No part of the information will be used to evaluate individual students or be reflected in their school records. The results of this program evaluation will provide YCES with valuable information regarding the benefit of continuing the Kelso’s Choice curriculum and may be published professionally to help other educators choose effective programs.

All of the students in kindergarten through 4th grade will be taught the Kelso’s Choice principles as part of the school curriculum; however, participation in the effectiveness study is not mandatory. If you would prefer that your child’s responses NOT be included in the study, please sign and return this form. If I do not receive a signed form, your child will be included in the program evaluation.

If you have any questions, please feel free to contact me at the elementary school or by email, or you may contact my supervisor, Dr. Elizabeth Hamilton, at ehamilton@georgefox.edu. I look forward to working with the students and faculty at Yamhill Carlton Elementary School.

Sincerely,

Shaun Davis, M.A.
Yamhill Carlton Elementary School Psychology Intern
George Fox University Doctoral Candidate
Email: daviss09@georgefox.edu

Return the following to Shaun Davis at the YCES main office only if you do NOT want your child to participate in the program evaluation:
I, _____________________________ (parent’s name), do NOT want my child,  
_____________________________ (student’s name), to participate in the Kelso’s Choice study.

__________________________________________  
Signature                                      Date
Appendix B

Instruments

The Children’s Self-Efficacy in Peer Interactions (Wheeler & Ladd, 1982, reprinted with permission)
<table>
<thead>
<tr>
<th>GRADE:</th>
<th>EASY!</th>
<th>EASY!</th>
<th>EASY!</th>
<th>EASY!</th>
<th>EASY!</th>
<th>EASY!</th>
<th>EASY!</th>
<th>EASY!</th>
<th>EASY!</th>
<th>EASY!</th>
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<td>NAME:</td>
<td></td>
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</tr>
</tbody>
</table>

Circle the response that BEST describes how well you can do the following things.

**BUILDING SELF-EFFICACY**

1. Some kids want to play a game. Asking them if you can play is ____ for you.
2. Some kids are arguing about how to play a game. Telling them to stop is ____ for you.
3. Some kids are teasing your friends. Telling them to stop is ____ for you.
4. You want to start a game. Asking other kids to play the game is ____ for you.
5. A kid tries to take your turn during a game. Telling the kid it's your turn is ____ for you.
6. Some kids are going to lunch. Asking if you can go with them is ____ for you.
7. A kid cuts in front of you in line. Telling the kid not to cut is ____ for you.
8. A kid wants to do something that will get you into trouble. Asking the kid to do something else is ____ for you.
9. Some kids are making fun of someone in your classroom. Telling them to stop is ____ for you.
10. Some kids need more people to be on their teams. Asking to be on the team is ____ for you.
11. You have to carry some things home from school. Asking another kid to help you is ____ for you.
Circle the response that BEST describes how well you can do the following things.

HARD! means it is really hard for you
Hard means it is a little bit hard for you
EASY! means it is really easy for you
Easy means it is a little bit easy for you

| 12. A kid always wants to be first when you play a game. Telling the kid that you are going first is ___?___ for you. | HARD! | Hard | Easy | EASY! |
|__________________________________________________________|_____ |______ |______ |______ |
| 13. Your class is going on a trip and everyone needs a partner. Asking someone to be your partner is ___?___ for you. | HARD! | Hard | Easy | EASY! |
|__________________________________________________________|_____ |______ |______ |______ |
| 14. A kid does not like your friend. Telling the kid to be nice to your friend is ___?___ for you. | HARD! | Hard | Easy | EASY! |
|__________________________________________________________|_____ |______ |______ |______ |
| 15. Some kids are deciding what game to play. Telling them what game you like is ___?___ for you. | HARD! | Hard | Easy | EASY! |
|__________________________________________________________|_____ |______ |______ |______ |
| 16. You are having fun playing a game but other kids want to stop. Asking them to finish playing the game is ___?___ for you. | HARD! | Hard | Easy | EASY! |
|__________________________________________________________|_____ |______ |______ |______ |
| 17. You are working on a project. Asking another kid to help is ___?___ for you. | HARD! | Hard | Easy | EASY! |
|__________________________________________________________|_____ |______ |______ |______ |
| 18. Some kids are using your play area. Asking them to move is ___?___ for you. | HARD! | Hard | Easy | EASY! |
|__________________________________________________________|_____ |______ |______ |______ |
| 19. Some kids are deciding what to do after school. Telling them what you want to do is ___?___ for you. | HARD! | Hard | Easy | EASY! |
|__________________________________________________________|_____ |______ |______ |______ |
| 20. A group of kids wants to play a game that you don’t like. Asking them to play a game that you like is ___?___ for you. | HARD! | Hard | Easy | EASY! |
|__________________________________________________________|_____ |______ |______ |______ |
| 21. Some kids are planning a party. Asking them to invite your friend is ___?___ for you. | HARD! | Hard | Easy | EASY! |
|__________________________________________________________|_____ |______ |______ |______ |
| 22. A kid is yelling at you. Telling the kid to stop is ___?___ for you. | HARD! | Hard | Easy | EASY! |
|__________________________________________________________|_____ |______ |______ |______ |
The Social Competence (Conduct Problems Prevention Research Group, 1991, reprinted with permission)
### Social Competence

This assessment measures teachers' perceptions of a child's social competence. Teachers are asked whether a child engages in certain prosocial behaviors and how well a child controls his or her emotions.

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>A little</th>
<th>Moderately well</th>
<th>Well</th>
<th>Very well</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Can accept things not going his/her way</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Copes well with failure</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Accepts legitimate imposed limits</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Expresses needs and feelings appropriately</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Thinks before acting</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Resolves peer problems on his/her own</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Can calm down when excited or all wound up</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Can wait in line patiently when necessary</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Is very good at understanding other people's feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Is aware of the effect of his/her behavior on others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. Works well in a group</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. Plays by the rules of the game</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. Controls temper when there is a disagreement</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. Shares materials with others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. Cooperates with peers without prompting</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. Is helpful to others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. Listens to others' points of view</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. Can give suggestions and opinions without being bossy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19. Acts friendly towards others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
1. Listen to the story and then circle the letter of the BEST answer.
What would you say or do so that YOU could play on the swing?
Would you:

A. Say, “You’d better let me play?”
B. Ask them to share the swing?
C. Ask the teacher to make him get off the swing?
D. Tell the teacher to not let them play anymore?
E. Just leave?

2. Listen to the story and then circle the letter of the BEST answer.
What would you say or do so that YOU could get to be friends with this boy or girl?
Would you:

A. Wait until they talked to you?
B. Let them ride your bike so that they’d be your friend?
C. Ask the teacher to make them play with you?
D. Say, “You’d better play with me?”
E. Ask the teacher to make them sit alone?

3. Listen to the story and then circle the letter of the BEST answer.
What would you say or do so that YOU could get your place back in line?
Would you:

A. Ask the teacher to make them give you your place back?
B. Push them back?
C. Go to the back of the line?
D. Ask the teacher to make them go to the back of the line?
E. Say, “Can I have my place back?”

4. Listen to the story and then circle the letter of the BEST answer.
What would you say or do to get to play with them?
Would you:

A. Ask your mom or dad to make them play with you?
B. Tell them they’d better play with you?
C. Ask them if you could play?
D. Watch them play?
E. Ask your mom or dad to make them stop racing?
5. Listen to the story and then circle the letter of the BEST answer.
   What would you say or do so that YOU could get your turn?
   Would you:

   A. Skip their turn?
   B. Just forget about it?
   C. Tell your mom or dad to let you win because they skipped your turn?
   D. Ask if they skipped your turn?
   E. Tell your mom or dad to make them give you your turn?

6. Listen to the story and then circle the letter of the BEST answer.
   What would you say or do to get to play with them?
   Would you:

   A. Tell the teacher to make them stop playing?
   B. Just start playing with them?
   C. Ask the teacher to make them play with you?
   D. Go sit by yourself?
   E. Call them bad names?

7. Listen to the story and then circle the letter of the BEST answer.
   What would you say or do to get them to stop teasing you?
   Would you:

   A. Cry?
   B. Call them names too?
   C. Ask them to stop?
   D. Tell the teacher to make them stop?
   E. Tell the teacher to make them sit alone?

8. Listen to the story and then circle the letter of the BEST answer.
   What would you say or do to get to play kickball?
   Would you:

   A. Offer to keep score if you could play the next game?
   B. Go sit with the teacher?
   C. Take the ball so that they couldn’t play?
   D. Ask the teacher to take the ball away?
   E. Ask the teacher to put you on a team?
Teacher Name: ___________________________ Grade: _____ # of Students: _____

Teacher Survey

1 = not at all  2 = sometimes  3 = mostly  4 = always

1. Students in my class can identify a big problem that needs adult help.
   Circle one: Not at all  Sometimes  Mostly  Always
   1         2         3         4

2. My students can identify an adult to whom they can report a big problem.
   Circle one: Not at all  Sometimes  Mostly  Always
   1         2         3         4

3. Students in my class know when to solve a little problem themselves.
   Circle one: Not at all  Sometimes  Mostly  Always
   1         2         3         4

4. My students know the difference between tattling and telling.
   Circle one: Not at all  Sometimes  Mostly  Always
   1         2         3         4

5. My students refrain from tattling.
   Circle one: Not at all  Sometimes  Mostly  Always
   1         2         3         4

6. My students use one or more of Kelso’s choices to solve problems in the classroom.
   Circle one: Not at all  Sometimes  Mostly  Always
   1         2         3         4

7. My students use one or more of Kelso’s choices to solve problems on the playground.
   Circle one: Not at all  Sometimes  Mostly  Always
   1         2         3         4

8. Kelso has helped make my classroom a more pleasant place to teach.
   Circle one: Not at all  Sometimes  Mostly  Always
   1         2         3         4
Appendix C

Curriculum Vita
Shaun Davis

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EDUCATION

Doctoral Student in Clinical Psychology (PsyD) Program  Present
George Fox University Graduate Department of Clinical Psychology (APA Accredited), Child & Adolescent Emphasis; GPA: 3.99
Newberg, Oregon
Advisor: Mary Peterson, PhD., ABPP

Master of Arts, Clinical Psychology  2014
George Fox University, Newberg, Oregon

Bachelor of Arts, Social and Behavioral Studies  2011
George Fox University, Newberg, Oregon

SUPERVISED CLINICAL EXPERIENCE

Providence Medical Group  2014-2016
Sherwood, Oregon
Title: Behavioral Health Consultant
Treatment Setting: Primary Care
Populations: Diverse populations of children through adults, including Latino, Asian, African American, Pacific Islanders, LGBTQ, and a wide range of SES
Supervisors: Jeri Turgesen, PsyD.; Mary Peterson, PhD., ABPP; Marie Christine Goodworth, PhD.; Consultants: Erica Tan, PsyD.; Elizabeth Hamilton, PhD.

Clinical Duties:
• Work as part of an integrated medical care team to treat patients for behavioral concerns as well as mental health
• Provide brief individual therapy (1-4 visits; 20-25 minute appointments) using Evidence-Based Therapy, including Motivational Interviewing, CBT, DBT, and Acceptance & Commitment Therapy
• Provide family interventions and parent training for pediatric patients
• Warm hand-offs and same day appointments
• Assessment of ADHD, depression, anxiety, somatization, memory, and cognitive functioning
• Consultation with primary care providers and support staff
• Clinical notes and communication using an electronic medical record system

Olson Pediatric Clinic  2015
Supplemental Practicum
Lake Oswego, Oregon
Title: Behavioral Health Specialist
Treatment Setting: Primary Care
Populations: Diverse populations of children, ages newborn – 18 years
Supervisors: Tabitha Becker, PsyD.; Erika Doty, PsyD.

Clinical Duties:
• Work as part of an integrated medical care team to treat patients for behavioral concerns as well as mental health
• Warm hand-offs and same day appointments
• Consultation with primary care providers and support staff
• Clinical notes and communication using an electronic medical record system
Rural School District Consortium 2013-2014

Yamhill/Carlton, Oregon
Title: School-Based Behavioral Health Specialist
Treatment Setting: Public K-12 School
Populations: Diverse populations of students, parents, and staff of K-12 multi-systemic school setting, including Latino, Asian, and African American, primarily low SES
Supervisor: Elizabeth Hamilton, PhD.; Consultant: Wayne Adams, PhD., ABPP

Clinical Duties:
• Long-term and short-term evidence-based therapy, including play therapy, behavioral therapy, CBT, bibliotherapy, and art therapy
• Conduct system-based intake interviews with parents, staff, and students, to implement empirically-supported intervention strategies
• Crisis intervention through psycheducational group meetings, individual risk assessments, and parent/student/staff consultation
• Conduct group interventions based on evidence-based curriculum for social skills and emotional regulation
• Administer a variety of behavioral, cognitive, and personality assessments as part of a multi-systemic Individual Educational Plan team, providing screening for and support for learning disabled and at-risk students
• Maintain clinical notes and professional communication

George Fox University Pre-Practicum 2012-2013

Newberg, Oregon
Title: Pre-Practicum Therapist
Treatment Setting: University
Populations: George Fox University undergraduate students
Supervisors: Carlos Taloyo, PhD. And Tim Cooper, TA, M.A.

Clinical Duties:
• Clinical interview, formulation of diagnostic impressions and individual psychotherapy
• Report writing, reminder contact, chart notes, and file care
• Formulated treatment plans

Depression Recovery Group 2012

Newberg, Oregon
Title: Group Facilitator
Treatment Setting: Community Mental Health
Populations: Adult females of diverse ages, religions, and socioeconomic backgrounds
Supervisors: Tamara Rodgers, M.D. And Joel Simons, TA, M.A.

Clinical Duties:
• Facilitate group intervention and work with a team of other leaders
PUBLICATIONS AND PRESENTATIONS


Davis, S., Song, C., Uchison, J. (May 2014). Pediatricians' perceptions of benefits and barriers of integrated behavioral health services. Poster presentation at OPA conference: Portland, OR.

SBUILDING SELF-EFFICACY

OTHER PRESENTATIONS

C.S. Lewis Academy High School
Newberg, Oregon
- Recognizing the physical manifestations of anxiety
- Discussing depression with your peers

Providence Health Children’s Fair
City of Portland, Portland, Oregon
- Team member addressing bullying from different developmental stages
- Provided community outreach discussing anti-bullying approaches, including: how to recognize bullying, emotions with bullying, what to do, and anti-bullying commitments

ONGOING RESEARCH EXPERIENCE

Dissertation Title: Building self-efficacy in peer relations: Evaluation of a school-based intervention
Summary: The present study is designed to evaluate whether or not Kelso’s Choice curriculum impacts the development of self-efficacy in elementary school students in a rural setting.
Committee Chair: Mary Peterson, PhD., ABPP
Committee Members: Elizabeth Hamilton, PhD., Kathleen Gathercoal, PhD.
Date of Completed Defense: December 2015

OTHER RESEARCH EXPERIENCE

Research Vertical Team Member
George Fox University, Newberg, Oregon
Chair: Mary Peterson, PhD., ABPP
- Bi-monthly small group for developing research competencies
- Dissertation development
- Collaborative supplemental research projects
- Develop colleague areas of research interests
- Various areas of team interest and focus: Health Psychology, Neuropsychological Assessment, Group Interventions, Child and Adolescent Interventions

CLINICAL TRAININGS

Clinical Team
George Fox University, Newberg, Oregon
Consultants: Elizabeth Hamilton, PhD.; Erica Tan, PsyD; Wayne Adams, PhD., ABPP; Winston Seegobin, PsyD
- Consultation group that meets weekly to present and discuss cases from various clinical perspectives.

- Primary Care/Health Psychology Training

Primary Care Behavioral Health Boot Camp
George Fox University, Newberg, Oregon
Joel Gregor, PsyD. and Jeri Tergusen, PsyD.

Action and Commitment in Psychotherapy: A Mindful Approach to Rapid Clinical Change
George Fox University, Newberg, Oregon
Brian Sandoval, PsyD. and Juliette Cutts, PsyD.

Primary Care Behavioral Health
George Fox University, Newberg, Oregon
Brian Sandoval, PsyD. and Juliette Cutts, PsyD.
**Child & Adolescent Training**

- **Let's Talk About Sex: Managing Emerging Sexuality**
  George Fox University, Newberg, Oregon
  Joy Mauldin, PsyD.
  October 2015

- **“Face Time” in an Age of Technological Attachment**
  George Fox University, Newberg, Oregon
  Doreen Dodgen-Magee, PsyD.
  November 2014

- **Fetal Alcohol & Other Neurobehavioral Conditions: Understanding and Application of a Brain-Based Approach**
  FASCETS, Inc., Portland, Oregon
  Diane V. Malbin, MSW
  October 2014

- **Understanding and Treating ADHD in Children**
  George Fox University, Newberg, Oregon
  Erika Doty, PsyD.
  October 2014

- **Integrating Animal Assisted Therapy With Play Therapy**
  The Northwest Center for Play Therapy, Portland, Oregon
  Rise VanFleet, PhD.
  November 2013

- **Neurobiology of Child Trauma & Benefits of Expressive Therapies**
  CAPS Convention, Portland, Oregon
  Daniel Sweeney, PhD., LPC, LMFT, RPT-S
  April 2013

**Diversity Training**

- **Conducting Therapy With Gender Variant Clients**
  CAPS Convention, Portland, Oregon
  Erica Tan, PsyD. and Trista Carr, PsyD.
  April 2013

- **Afrocentric Approaches to Clinical Practice**
  George Fox University, Newberg, Oregon
  Danette C. Haynes, LCSW and Marcus Sharpe, PsyD
  January 2013

**Assessment Training**

- **Learning Disabilities: A Neuropsychological Perspective**
  George Fox University, Newberg, Oregon
  Tabitha Becker, PsyD.
  October 2014

**Northwest Psychological Assessment Conference**

- **Northwest Psychological Assessment Conference**
  June 2014
  George Fox University, Newberg, Oregon
  - WISC-V: Overview and Demonstration of Upcoming Revisions; Patrick Moran, PhD.
  - Woodcock Johnson-IV: A New Era of Assessment and Interpretation; Stephanie Rodriguez, EdS.
  - Assessing Therapeutic Outcomes: Improving Your Effectiveness in Clinical Practice, Carlos Taloyo, PhD.

**Other Related Training**

- **Spiritual Formation & Psychotherapy**
  George Fox University, Newberg, Oregon
  Barrett McRay, PsyD.
  March 2015

- **Credentialing, Banking, the Internship Crisis, & Other Challenges**
  George Fox University, Newberg, Oregon
  Morgan Sammons, PhD.
  February 2015
CBT Institute of Israel
Ohad M. Hershkovitz, PsyD.

The Impact of New Technology on Our Brains and Our Lives  May 2014
OPA Conference, Portland, Oregon
Gary Small, MD.

Evidence-Based Treatments for PTSD in Veteran Populations: Clinical and Integrative Perspectives  March 2014
George Fox University, Newberg, Oregon
David Beil-Adaskin, PhD.

DSM 5: Essential Changes in Form & Function  January 2014
George Fox University, Newberg, Oregon
Jeri Turgesen, PsyD. and Mary Peterson, PhD.

Action and Commitment in Psychotherapy  January 2014
Two-day Workshop, Portland, Oregon
Steven Hayes, PhD.

The Person of the Therapist  March 2013
George Fox University, Newberg, Oregon
Brooke Kuhnhausen, PhD

SUPERVISION EXPERIENCE
Graduate Assistant  2015-Present
Graduate Level Course: Clinical Foundations
George Fox University, Newberg, Oregon
Graduate School of Clinical Psychology
Supervisor: Glena Andrews, PhD.
  • Taught clinical skills in small group format and individual supervision
  • Provided feedback on student therapy interactions
  • Weekly supervision with students and supervisor
  • Summative feedback at the end of each semester

RELEVANT TEACHING & ACADEMIC APPOINTMENTS
Teaching Assistant  2014
Graduate Level Course: Personality Assessment
George Fox University, Newberg, Oregon
Graduate School of Clinical Psychology
Supervisor: Paul Stolzfus, PhD.

Graduate Assistant  2013
George Fox University, Newberg, Oregon
Graduate School of Clinical Psychology
PsyD Training Competency Project
Supervisor: Mary Peterson, PhD., ABPP

Admissions Committee Member  2013 – Present
George Fox University, Newberg, Oregon
Graduate School of Clinical Psychology
Supervisor: Mary Peterson, PhD., ABPP
SHAUN DAVIS

Guidance Counselor, Teacher, Administrator 2001-2011
C.S. Lewis Academy, Newberg, Oregon
Supervisor: Mike McConaughey, M.Ed.

Duties:
- Maintain student transcripts, create class schedules, evaluate graduation requirements, and administer standardized tests.
- Facilitate Administration Committee meetings, review school policies, monitor state academic standards, assist with discipline, mediation, and communication, create staff development activities.
- Develop curriculum to prepare students for life after high school, coordinate college/career visitors, organize internship opportunities and mock interviews.
- Organize and host high school preview and orientation events.
- Develop school-wide community service program (nationally recognized for excellence).
- Develop student leadership program, supervise student government, create peer mentor program with overlapping programs in the middle school.

AWARDS & HONORS

Division 16 Student Research Poster Award
APA 2015 Annual Convention August, 2015

Richter Scholar
George Fox University, Newberg, Oregon January, 2015

Graduate Dept. of Clinical Psychology Special Commendation
George Fox University, Newberg, Oregon May, 2014

Research Award for Competency in Education and Systems
Oregon Psychological Association Annual Conference May, 2014

Richter Scholar
George Fox University, Newberg, Oregon January, 2014

Teacher Recognition Award
C.S. Lewis Academy, Newberg, Oregon October, 2007

AFFILIATIONS / MEMBERSHIPS

American Psychological Association, Student Affiliate 2012-Present
APA Division 38 – Society of Health Psychology 2016-Present
APA Division 53 – Society of Clinical Child & Adolescent Psychology 2013-Present
APA Division 54 – Society of Pediatric Psychology 2015-Present
Oregon Psychological Association, Student Affiliate 2013-Present
Collaborative Family Healthcare Association, Student Affiliate 2016-Present
CFHA Primary Care Behavioral Health Special Interest Group 2016-Present
GDCP Pediatric Psychology Student Interest Group 2015-Present
GDCP Clinical Health Psychology Student Interest Group 2015-Present
BUILDING SELF-EFFICACY

ASSESSMENTS TRAINED AND SUPERVISED IN

- 16 Personality Factor Questionnaire
- Adaptive Behavioral Assessment System II
- Behavioral Assessment System for Children 2
- Behavioral Rating Inventory of Executive Function
- Boston Naming Test
- Booklet Category Test
- California Verbal Learning Test-2
- Conner’s Continuous Performance Test II
- Conner’s 3rd Edition
- Delis-Kaplan Executive Function System
- Developmental Neuropsychological Assessment (NEPSY)
- Expressive Vocabulary Fluency
- Grey Oral Reading Tests 5th Edition
- Grooved Pegboard Test
- Halstead Reitan Tactual Performance Test
- House-Tree-Person Test
- Millon Adolescent Clinical Inventory
- Millon Clinical Multiaxial Inventory-III
- Minnesota Multiphasic Personality Inventory 2 & MMPI-Restructured Forms
- Minnesota Multiphasic Personality Test-Adolescent
- Peabody Picture Vocabulary Test 4
- Personality Assessment Inventory
- Personality Assessment Inventory-Adolescent
- Rey-Osterrieth Complex Figure Test
- Robert's Apperception Test for Children 2
- Test of Memory and Malingering
- Trauma Symptom Checklist
- Wechsler Abbreviated Scale of Intelligence-II
- Wechsler Adult Intelligence Scale IV
- Wechsler Individual Achievement Tests-III
- Wechsler Intelligence Scale for Children-4
- Wechsler Memory Scales
- Wechsler Nonverbal Scale of Ability
- Wide Range Assessment of Memory and Learning 2
- Wide Range Intelligence Test
- Wide Range Achievement Test 4
- Wisconsin Card Sorting Test
- Woodcock-Johnson III Tests of Cognitive Abilities
- Woodcock-Johnson III Tests of Achievement

POPULATION-BASED SCREENERS

- Adult ADHD Self-Report Scale
- Autism Spectrum Rating Scale
- Brown Attention-Deficit Disorder Scales
- Center for Epidemiologic Studies Depression Scale
- CRAFFT Screening Test
- General Anxiety Disorder-7
- Geriatric Depression Scale
- Montreal Cognitive Assessment
- Mood Disorder Questionnaire
- NICHQ Vanderbilt Assessment Scales
- Outcome Rating Scale
- Pain Catastrophizing Scale
- Pain Disability Index
- Pain Stages of Change
- Patient Activation Measure
- Patient Health Questionnaire-9
- Pediatric Symptom Checklist
- PTSD Checklist
- Session Rating Scale
- Spence Children’s Anxiety Scale
- Tampa Scale for Kinesiophobia
- Therapeutic Presence Scale
- Trauma Symptom Checklist for Children
- Wender Utah Rating Scale
REFERENCES

Mary Peterson, PhD., ABPP
Chairperson
Graduate Department of Clinical Psychology
George Fox University
mpeterson@georgefox.edu

Elizabeth Hamilton, PhD.
Assistant Professor
Director of School-Based Health and Assessment
Graduate Department of Clinical Psychology
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Jeri Turgesen, PsyD.
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