

Emotion and Health Research Laboratory



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Developing and Promoting Emotional and Social Competencies in Children: Evaluating the Impact of the Umbrella Project.

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Introduction

A growing body of research documents the role of emotional and social competencies in promoting resilience and wellbeing in children and adolescents (Parker, Saklofske, Wood & Collin, 2009). Collectively known as emotional intelligence (EI), these competencies include the ability to identify emotions, understand their causes and consequences, express them in socially appropriate ways, and effectively regulate emotions (Salovey & Sluyter, 1997). Youth with better developed emotional and social competencies tend to experience less emotional and behavioural maladjustment, get along better with their peers, and use more adaptive coping strategies (Keefer, Parker & Saklofske, 2009).

An important research question is understanding how best to develop and promote emotional and social competencies (ESCs) in youth (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Schutte, Malouff, & Thorsteinsson, 2013). Although many psychoeducational programs have been created to develop and promote ESCs (Schutte et al., 2013), it should be noted that empirical data is often lacking with respect to whether (and by how much) these programs improve specific competencies (Zeidner, Matthews, & Roberts, 2012). When data is available, it is important to acknowledge the limited time-frame used to monitor outcomes. For example, in a recent review of behavioral intervention research on social skill building, Palmen, Didden, & Lang, (2012) reported that 3 months was the longest amount of time any of the 20 reviewed studies had tracked outcomes. Thus, there are important knowledge gaps that need to be addressed about ESC-related psychoeducational programs. There is also a vast group of intervention specialists working in the education and social service sector who would be interested in adopting ESC-related programs with proven benefits (Achterberg, Wind, deBoer, & Frings-Dresen, 2009).

The Umbrella Project is a curriculum program developed by Forristal (2017) to help child in grades 3 to 8 learn better skills of emotional wellbeing such as empathy, kindness, growth

mindset, autonomy, self-compassion, grit and gratitude. The present study sought to examine the impact the Umbrella Project had on a group of elementary school-aged children. Towards this end, the study examined a relatively broad range of emotional and social competencies. We used a model of EI developed by Bar-On (1997, 2000) that consists of several dimensions: intrapersonal (comprised of several related abilities like recognizing and understanding one's feelings), interpersonal (comprised of several related abilities like empathy), adaptability (consisting of abilities like being able to adjust one's emotions and behaviours to changing situations and conditions), and stress management (consisting of abilities like resisting or delaying an impulse). Although a number of distinct and overlapping conceptual models have been proposed for EI (see Bar-On & Parker, 2000), most models include skills like the ability to accurately appraise and express emotion (or “intrapersonal” abilities), the ability to appraise emotions in others (or “interpersonal abilities”), the ability to effectively regulate emotion, and the ability to use feelings to guide behaviour (Parker, Taylor & Bagby, 2001). Individuals who are described as low in emotional intelligence manifest difficulties in the accurate appraisal and expression of emotion, in the effective regulation of emotional experiences, and in the ability to use feelings to guide behaviour (Taylor, Bagby & Parker, 1997).

Method

Participants

The sample consisted of 529 students (231 boys, 290 girls, and 8 students who did not report a gender) attending six schools (codes = DOM, DP, MA, MCG, SA, & SVDP) in the Waterloo Regional District School Board, the Waterloo Catholic District School Board and the Huron Perth Catholic District School Board. All of the students participated in the Umbrella Project during the 2018-2019 academic year. Only students who completed an EI measure before and after the EI-related program (Time 1 and Time 2), and could be matched using codes provided by school officials, are included in this report. The students ranged in age from 8 to 14 years at Time 1, with a mean age of 11.0 years ($SD = 1.44$). The number of participants varied considerably across the 6 schools: DOM = 149, DP = 55, MA = 28, MSG = 178, SA = 55, and SVDP = 64.

Procedure

At Time 1 (early Fall, 2018) students completed the *Emotional Quotient Inventory: Youth Version* (EQ-i:YV; Bar-On & Parker, 2000); the same instrument was used again at the end of the school year (Time 2). For both Time 1 and Time 2, students completed the surveys using an online version of the tool.

The EQi:YV is a self-report measure of emotional and social competencies in children and adolescents. Respondents answer each item on the instrument using 4-point Likert scales ranging from 1 (“very seldom true of me”) to 4 (“very often true of me”). The items are distributed among four broad dimensions which constitute the core features of EI: intrapersonal abilities, interpersonal abilities, adaptability skills, and stress management skills. Together, the four scales indicate total EI. The intrapersonal dimension involves the ability to recognize and understand one’s own emotions and to express one’s feelings in a constructive way. The interpersonal dimension involves the ability to understand the feelings of others and being able to relate with

others in an accommodating way (i.e., showing empathy, social responsibility, and developing and maintaining interpersonal relationships). Being able to manage change and the emotions generated by that change, as well as the ability to solve personal and interpersonal problems, are features central to the adaptability dimension. Finally, the stress management dimension of involves the ability to manage and regulate emotions effectively and includes such competencies as impulse control and stress tolerance. A high score on any individual ability scale (or the total score) reflects a high level of social and emotional competency.

Results and Discussion

Figure 1 presents the means by gender and time-period (Time 1 vs. Time 2) for the total EI scale. To examine for possible changes in EI scores, a gender by time-period repeated measures ANOVA was performed with total EI as the dependent measure. For Total EI, a main effect was found for time [$F(1, 519) = 24.69, p < .001$], with students scoring significantly higher on total EI at Time 2 compared to Time 1. There was also a significant main effect for gender, with girls scoring higher than boys on total EI regardless of testing session [$F(1, 519) = 4.92, p < .05$]. The interaction of time and gender was not significant.

To examine whether the impact of the Umbrella Project differed by school, we also conducted a school by time-period repeated measures ANOVA, with total EI as the dependent measure. Figure 2 presents the means by school and time-period (Time 1 vs. Time 2) for the total EI scale. For Total EI, a main effect was found for time [$F(1, 523) = 14.70, p < .001$], with students scoring significantly higher on total EI at Time 2 compared to Time 1. There was no significant main effect for school; the interaction of school and time was also not significant. Thus, student's EI scores improved across time regardless of school they attended.

To examine whether the impact of the Umbrella Project differed by grade, we also conducted a grade (4, 5, 6, 7 & 8) by time-period repeated measures ANOVA with total EI as the dependent measure. Figure 3 presents the means by grade and time-period (Time 1 vs. Time 2) for the total EI scale. For Total EI, a main effect was found for time [$F(1, 523) = 25.47, p < .001$], with students scoring significantly higher on total EI at Time 2 compared to Time 1. There was no significant main effect for grade; the interaction of grade and time was also not significant. Thus, student's EI scores improved across time regardless of the grade they were in.

Figure 4 presents the means on the four EQi:YV subscales (intrapersonal, interpersonal, adaptability, and stress management) by gender and time-period (Time 1 vs. Time 2).

To examine for possible changes in EI scores, a series of gender by time-period repeated measures ANOVAs were performed with the various EQi:YV subscales as the dependent variables (i.e., intrapersonal, interpersonal, adaptability, and stress management subscales). For the intrapersonal subscale, the main effects for time and gender were not significant; the interaction of time and gender was also not significant.

For the interpersonal scale, a main effect was found for time [$F(1, 519) = 11.42, p < .001$], with students scoring significantly higher on the interpersonal scale at Time 2 compared to Time 1.

There was also a significant main effect for gender [$F(1, 519) = 77.84, p < .001$], with girls scoring higher than boys on the interpersonal scale regardless of testing session. The interaction of time and gender was not significant.

For the stress management scale, a main effect was found for time [$F(1, 519) = 7.15, p = .01$], with students scoring significantly higher on the scale at Time 2 compared to Time 1. The main effect for gender and the interaction of time and gender was not significant.

For the adaptability scale, a main effect was found for time [$F(1, 519) = 37.13, p < .001$], with students scoring significantly higher on the scale at Time 2 compared to Time 1. The main effect for gender and the interaction of time and gender was not significant.

Conclusion

This study sought to test whether the Umbrella Project could improve various emotional and social competencies in elementary school-aged children. Our results are very encouraging and suggest that the curriculum program does significantly foster and develop several key emotional and social competencies, regardless of school participating in the study and student grade. Participants in the study appeared to gain a better understanding of their own emotions, became more conscious of the emotions of themselves and others and became more aware and attentive to details in their environments. These results are consistent with previous research suggesting that important emotional and social competencies can be taught and developed in various age-groups (Durlak et al., 2011; Schutte et al., 2013).

It is worth noting that a rather sizeable literature has evolved demonstrating that various EI-related dimensions are consistently linked with academic success in children and adolescents (Durlak et al., 2011; Parker et al., 2009). Therefore, participating schools would be advised to continue their utilization of the Umbrella Project, since it appears that relevant competencies continue to be enhanced with further work and practice (Schutte et al., 2013).

References

- Achterberg, T., Wind, H., deBoer, A., & Frings-Dresen, M. (2009). Factors that promote or hinder young disabled people in work participation: A systematic review. *Journal of Occupational Rehabilitation, 19*, 129-141.
- Bar-On, R. (1997). *BarOn Emotional Quotient Inventory: Technical Manual*. Toronto: Multi-Health Systems.
- Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory (EQ-i). In R. Bar-On & J.D.A. Parker (Eds.), *Handbook of Emotional Intelligence*. San Francisco, CA: Jossey-Bass.
- Bar-On, R., & Parker, J. D. A. (2000). *The Bar-On EQ-i:YV: Technical manual*. Toronto: Multi-Health Systems.
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*, 474-501.

- Forristal, J. (2017). *The Umbrella Project*. <http://www.umbrellaproject.co/>
- Keefer, K. V, Parker, J. D. A., & Saklofske, D.H. (2009). Emotional intelligence and health. In C. Stough, D. H. Saklofske, & J. D. A. Parker (Eds.), *Assessing emotional intelligence: Theory, research and applications* (pp. 191-218). New York: Springer.
- Palmen, A., Didden, R., & Lang, R. (2012). A systematic review of behavioral intervention research on adaptive skill building in high-functioning young adults with autism spectrum Disorder. *Research in Autism Spectrum Disorders, 6*, 602-617.
- Parker, J. D. A., Saklofske, D. H., Wood, L. M., & Collin, T. (2009). The role of emotional intelligence in education. In C. Stough, D. H. Saklofske, & J. D. A. Parker (Eds.), *Assessing emotional intelligence: Theory, research and applications* (pp. 239-255). New York: Springer.
- Parker, J. D A, Taylor, G. J, & Bagby, R. M. (2001). The relationship between emotional intelligence and alexithymia. *Personality & Individual Differences, 30*, 107-115.
- Salovey, P., & Sluyter, D. (1997). *Emotional development and emotional intelligence: Implications for educators*. New York: Basic Books.
- Schutte, N. S., Malouff, J. M., & Thorsteinsson, E. B. (2013). Increasing emotional intelligence through training: Current status and future directions. *International Journal of Emotional Education, 5*, 56-72.
- Taylor, G. J., Bagby, R. M., & Parker, J. D. A. (1997). *Disorders of affect regulation: Alexithymia in medical and psychiatric illness*. Cambridge, UK: Cambridge University Press.
- Zeidner, M., Matthews, G., & Roberts, R. D. (2012). The emotional intelligence, health, and well-being nexus: What have we learned and what have we missed? *Applied Psychology: Health and Well-Being, 4*, 1-30.

Figure 1. Total EI scores by Gender and Time (Time 1 vs Time 2)

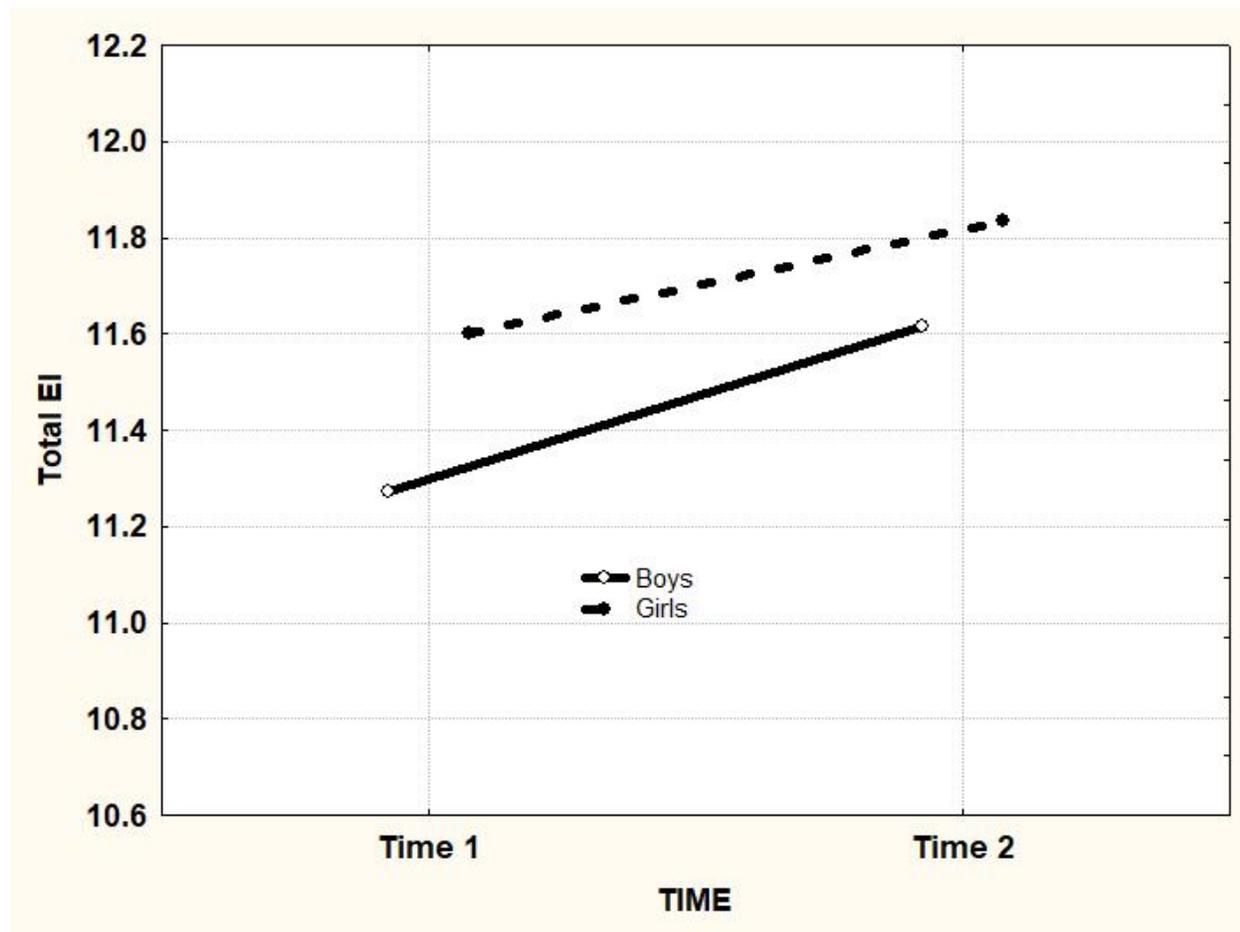


Figure 2. Total EI scores by School and Time (Time 1 vs Time 2)

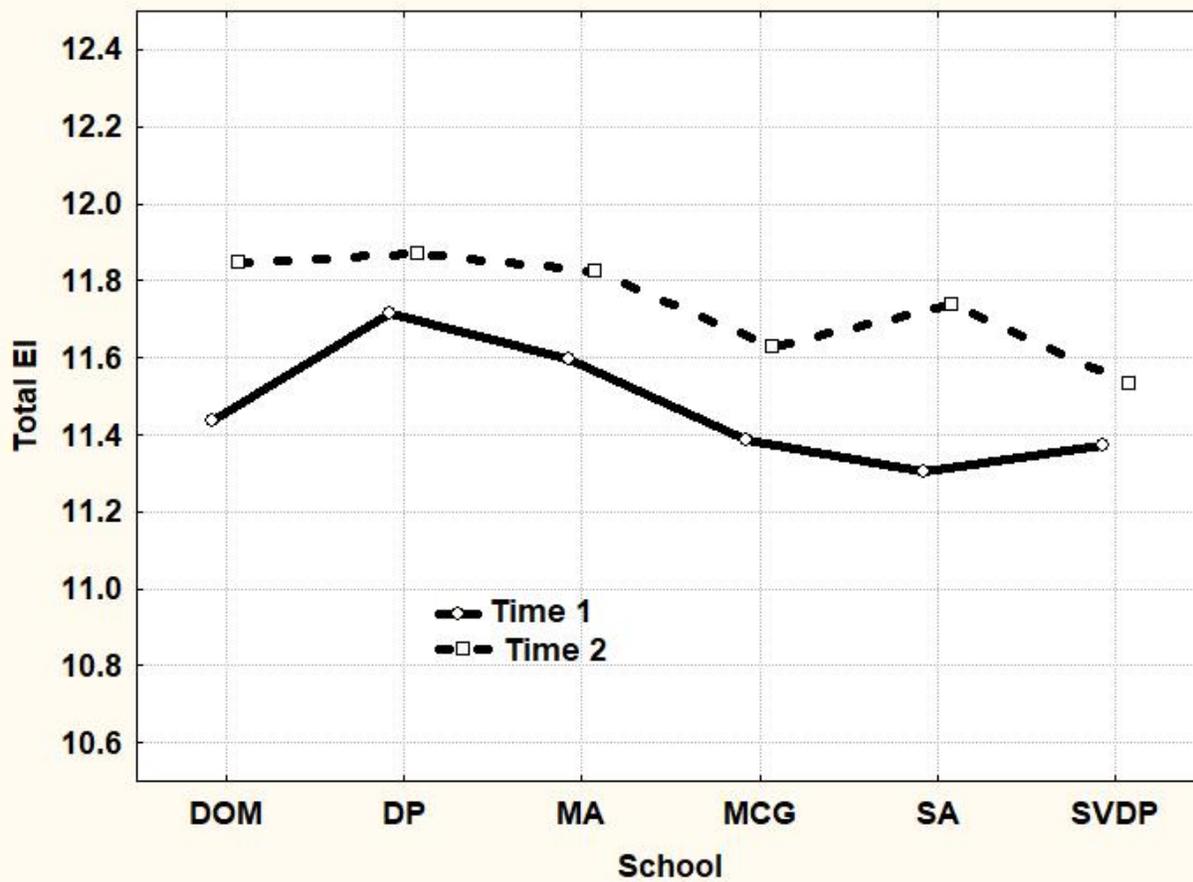


Figure 3. Total EI scores by Grade and Time (Time 1 vs Time 2)

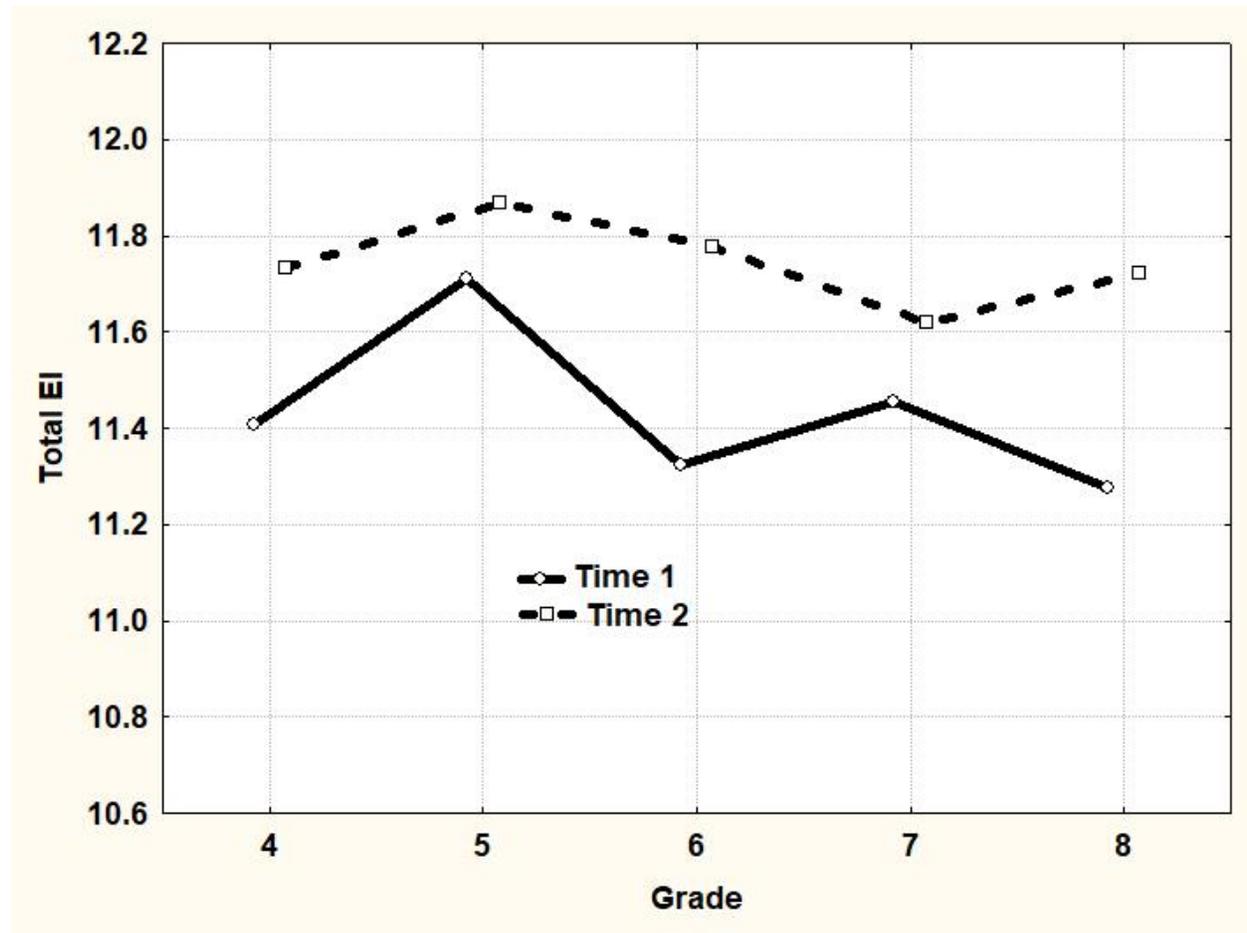
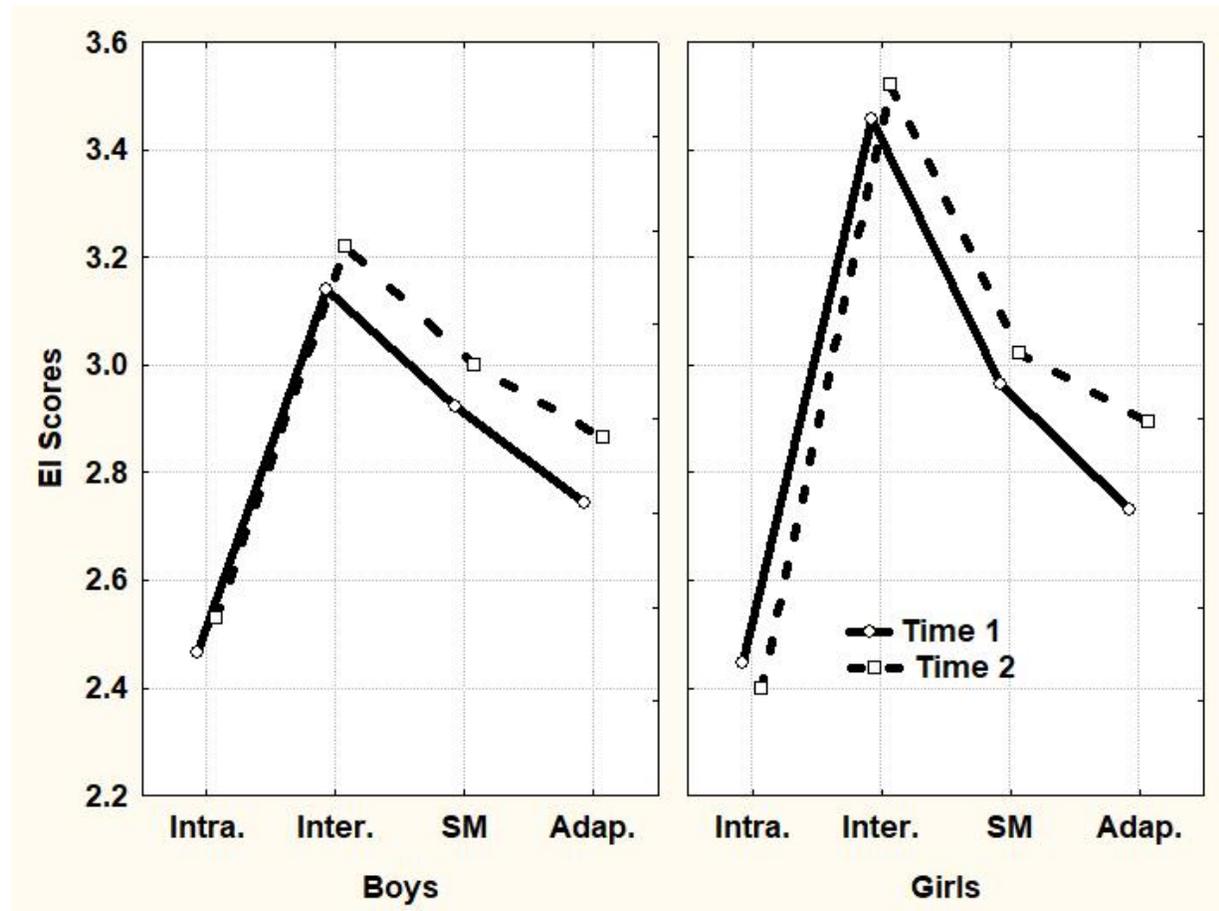


Figure 4. EI subscales scores by Grade and Time (Time 1 vs Time 2)



Note: Intra = Intrapersonal ability, Inter = Interpersonal ability, SM = Stress management, Adap. = Adaptability.