# MEASUREMENTS TO ASSESS AND PROGRAMMES TO PROMOTE SOCIO-EMOTIONAL COMPETENCES IN CHILDREN WITH INTELLECTUAL DISABILITY

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## Abstract

Socio-emotional Competences (SEC) in children with Intellectual Disability (ID) are essential to their personal, social and academic success. It is important to identify measurements that have been effective in assessing SEC in children with ID, as well as programmes that have proven successful with this population. This theoretical perspective on the state of the art of measurements to assess and promote SEC led us to a wide range of instruments, although only a few have been used with children with ID. The Test of Emotion Comprehension (Pons, Harris, & Doudin, 2002) seems to be the most suitable to use with these children, presenting several advantages including a Portuguese version, its use with the population with ID, its user-friendliness and appealing material. Regarding intervention programmes, there is evidence of the use of some with this population, showing relevant outcomes. Nevertheless, all these programmes provide us a solid basis for allowing a construction and validation of a new one in order to overcome some gaps in the promotion of SEC in children with ID.

*Keywords:* Socioemotional Competence (SEC), Intellectual Disability (ID), Assessment measurements, Intervention Programmes

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## 1. Introduction

Socio-emotional education aims to answer a wide range of socio-emotional needs that are not sufficiently addressed in formal education (Bisquerra, 2003). It is therefore necessary to promote Socio-emotional Learning (SEL) which, according to the Collaborative for Academic, Social and Emotional Learning (CASEL, 2003) consists of the development of essential SEC, being several of the SEL programmes available for students of different school levels. The same organization contends that these programmes should develop five key skills: self-awareness, self-management, social awareness, relational skills and making responsible decisions.

The different SEC components help in the social interactions success, supporting abilities such as listening, cooperating, asking for help, entering a small group or approaching a colleague and negotiating conflicts and interactions with peers. These abilities predict mental health and wellbeing throughout life (Denham, 2007). The evaluation of these acquired skills is essential to the selection of strategies to be implemented, besides being an important investigation point.

In this paper, we aim to analyze different SEC assessment measurements, as well as programmes to promote these competences, taking into account their characteristics and limitations, since they are intended to be used with children with ID.

## 2. Measurements to Assess Socio-emotional Competence

A core question on the assessment of the effectiveness of SEC promotion strategies in children is the existence of instruments that assess the various components of emotional functioning in schoolchildren and adolescents. Therefore, it is important to analyse the most common methods of assessment, as the evaluation of acquired skills is crucial for the differential selection of strategies to implement with different populations, especially those involved in Special Education Needs (Moreira, Oliveira, Crusellas, & Lima, 2012).

Assessment is a key point of any investigation and its purpose is to recognize problems that may exist, capable of being performed using several means such as observation of verbal and nonverbal behavior, interviews, with the purpose of collecting qualitative data as well as scales or questionnaires, to collect quantitative data (Martins, 2012). Thus, in order to construct an effective intervention, it is important to find out if the existing assessment instruments are efficient and appropriate for different age groups and subjects with specific characteristics, such as ID (Acquadro, Jambon, Ellis, & Marquis, 1996).

One of these instruments is the Affect Knowledge Test (AKT) (Denham, 1986), designed to focus on the interpersonal relationships issues, focusing more on nonverbal communication of emotions such as facial, gestural and body, and less in verbal abilities, except for the naming emotions task. The test analyses the following components of the knowledge of emotions: (1) ability to name basic emotions (happiness, sadness, anger and fear) based on facial expressions; (2) ability to recognize facial expressions of the same basic emotions based on their verbal labels; (3) ability to understand the causes of emotions in typical situations of emotional context and (4) ability of affective decentralization in emotionally ambiguous situations.

The tasks included in the AKT are distributed in the following dimensions: (1) verbal recognition and nonverbal identification of emotional expression and (2) knowledge of emotions triggered in typical and atypical situations (Machado et al., 2008). It is, therefore, a test that assesses the child's emotional knowledge as well as the recognition of the expression of emotion and the understanding of situations that cause emotions, using puppets with removable heads representative of happiness, sadness, anger and fear (Denham et al., 2012). It is designed to investigate socio-emotional development in pre-school children and it has been used as a development measure of the knowledge of emotions, being considered one of the SEC components that are associated with other variables of socio-emotional development (Machado, Veríssimo, & Denham, 2012).

According to Denham (2006) AKT has proven to be ecologically valid since it requires little verbalization and is playfully performed. It's easy to use and children have fun during the 20 minutes of its duration. The literature review suggests that AKT has not been implemented with children with ID yet, but there is evidence of its usage with visually impaired children (Oliveira, 2015). The Portuguese research context reveals that for the overall skills of emotion knowledge, tasks relating to happiness are the easiest followed by those relating to sadness, anger and fear (Machado et al., 2012). The figures also point out that the task of naming emotions is the less acquired ability, followed by recognition, affective decentralization and the identification of the causes of emotions. Several studies conducted by Denham (2011, 2012) confirm an important link between emotional knowledge, self-regulation and academic success.

In 1997, Mayer and Salovey, who created the concept of Emotional Intelligence (EI) in 1990, constructed the first instrument to measure individual performance in tasks of emotional situations through the Multifactor Emotional Intelligence Scale – MEIS. This instrument consists of twelve tests grouped into four skills: identification, use, understanding and management of emotions (Faria, 2011). Later, Mayer, Salovey & Caruso (2002) revisited the

previous model emphasizing that each of the 4 skills can be singly separated, measured, learned and developed. The authors made some changes to the initial model and proposed the MSCEIT (Mayer Salovey Caruso Emotional Intelligence Test) (Mayer, Salovey, & Caruso, 2002), which is an EI test built as a performance measurement. It assesses the individual's ability to solve problems involving emotions. The instrument includes eight sections grouped in pairs, distributed over four dimensions: facilitate thought and perceive, understand and manage emotions (Mayer et al., 2003), so it aims to assess the individual's ability to perceive, understand and use emotions in order to ease thinking, as well as manage emotions to facilitate cognitive processes and promote personal and intellectual growth (Gonzaga & Monteiro, 2011). The studies already performed include the full test or, as proposed by Noronha, Primi, Freitas & Dantas (2007), a partial use of the scales using only half of the score, more specifically the understanding and management skills of emotions. Psychometric studies reveal that, in general, the subtests showed acceptable internal consistency levels. Brackett & Salovey (2006) suggest that EI can be measured, predicting important psychological and behavioral outcomes, such as depression, peer relationships and satisfaction in relationships.

The Test of Emotion Comprehension (TEC-1) (Pons, Harris & Doudin, 2002) aims to assess nine components of emotional development: (1) recognition of emotions based on facial expressions; (2) external cases of emotions; (3) assignment of a desire as a cause of emotion; (4) the role of beliefs in the determination of emotions; (5) influence of memory in circumstances of emotional states assessment; (6) ability to regulate emotions; (7) ability to hide or conceal emotions; (8) mixture of emotions regarding a particular situation and (9) the role of morality in emotion (Rocha, 2016). There is a version for girls and a version for boys. The test consists of a book with illustrations (in digital format) with a story read for each situation, and on every page there are four possible endings represented by facial expressions. The authors designate them as happy, sad, angry, scared and OK and children are asked to assign an emotion to the presented situation (Pons et al., 2002). The advantages of this instrument are many, being a test that is not restricted to a few aspects of SEC but provides an opportunity to assess the nine aforementioned components. Being easily applicable and computerized, it is appealing for children (Santos, 2012). Another advantage is the existence of a Portuguese version and its validation for children with ID (Pons, 2016). Studies with TEC suggest that the most complex components of emotions understanding (conceal or hide, mixed emotions and morality) related to the reflexive features are those which most distinguish the performance, being also the ones that vary according to age, SEC and academic performance (Pons, Harris, & Rosnay, 2004; Tenenbaum, Visscher, Pons, & Harris, 2008; Rocha, 2016).

Asking children to tell stories is an effective way to figure out how they deal with their emotions and there are some instruments using this methodology. One of them is the projective test Era uma vez… (Once upon a time…) by Fagulha (1994; 1997; 2002), a story completion test designed for children between five and eleven which aims to study the way children elaborate their emotions (Estrada, 2008). It is characterized as a thematic projective test since the children have to develop a story from the presented stimuli and allows us to assess their ability to regulate emotions, namely their defense mechanisms (Fagulha, 2002). The test consists of eight cards with comics reporting common situations of a child's life. In every story there is a main character (boy or girl) to whom happens something. The eight cards present graphically the story in three pictures, being the thematic common daily event: separation and loss, disease and need to receive care, relationships with peers, nighttime terrors and nightmares, birthday, disagreement between parents and learning difficulties at school (Estrada, 2008). The purpose of the test is to see how children react to the emotions evoked by the events presented in the cards, existing situations that cause anxiety and others that cause pleasure. This test enables us to broaden our understanding of children's emotional life, particularly to perceive how they cope with disturbing and pleasurable events. Studies indicate that it may be used with children without and with ID and there is already some investigation with this population (Pereira & Faria, 2013; 2015) showing that children with ID live and identify emotions the same way children without ID do. However, the group with ID seems to have more difficulty in identifying fear and shame. Regarding the expression of emotions, the studies suggest that there are no relevant differences between the two groups although the group of children with ID relies more on fantasy and less on reality.

Another instrument is the Emotion Matching Task (EMT) (Izard, 2003) which aims to measure emotional knowledge, in particular the receptive (recognition of facial expressions of emotions) and expressive (labeling of these emotions) besides the knowledge concerning situations that cause emotions (Andrade, Abreu, Duran, Veloso & Moreira, 2013). It was designed for preschool children and features pictures of children of different ethnicities showing facial expressions alluding to emotions like happiness, sadness, anger, fear, surprise and also a neutral facial expression (Morgan, Izard & King, 2009). It is divided into four parts which assess different aspects of the emotional knowledge: (1) matching emotions expression; (2) labeling receptive emotion; (3) labeling emotional expression and (4) knowledge of emotional situation (Alonso-Alberca, Vergara, Fernandez-Berrocal, Johnson, & Izard, 2012; Seidenfeld, 2011).

EMT was the basis for the Emotion Knowledge Test used for a study in the University of Canterbury, New Zealand, with children with ID and entitled "Intervention for emotion

knowledge and behaviour problems in children with developmental disabilities" (Randall, 2012). This and other studies evidence the effectiveness of the test in the assessment of SEC in children (Alonso-Alberca et al., 2012; Morgan, 2009). These works highlight that emotional knowledge is related with adaptiveness and externalization of problems. Moreover, these studies strengthen the idea that older children with greater verbal skills have a better emotional knowledge. Another aspect this test appears to highlight is the difference between genders. Generally, in the findings of studies researching this instrument, girls have a more developed emotional knowledge with regard to the correspondence of emotions and the knowledge of expressive emotions, when compared with boys (Bennett, Bendersky, & Lewis, 2005).

Assessment of Children Education Skills (ACES) is an instrument developed by Schultz, Izard & Bear (2004) and aims to assess children's emotional knowledge. It comprises three scales: Facial Expressions, Emotions Situations and Emotions Behaviors which contribute to the definition of the total score of the Correct Emotional Perception. The scales intend, respectively, to analyze children's ability to perceive facial expressions observed in others, the situations that trigger emotions and behaviors associated with emotions. Pictures of children of school age and different races, expressing different emotional expressions are used (Alves, 2006, Boznac & Knoleksiz, 2014). It is a suitable instrument for children attending the 1st and 2nd cycles (1st cycle starts immediately after pre-school at the age of 6 and lasts 4 years; 2nd cycle starts at the age of 10 and lasts 2 years), and there is no evidence of its use with children with ID. Several studies with ACES suggest that gender is not connected with the understanding of emotions during childhood. Furthermore, the same surveys demonstrate the role of verbal competence in understanding emotions, meaning that children with better verbal skills have a greatly enlarged domain on vocabulary allusive to emotions which enhances the SEC acquisition (Boznac & Komleksiz, 2014; Parker, Mathis, & Kupersmidt, 2013; Verron, 2014).

The Bar-On Emotional Quotient Inventory (Bar-On, 1997, 2006) appears as one of the first measurements for EI that Bar-On defined as a set of personal, social and emotional skills that influence the person's competence to cope with the demands and environmental pressures. To assess that concept this self-report instrument of socio-emotional behavior, providing an assessment on EI was developed. It is an inventory of five scales with fifteen subscales: (1) intrapersonal (includes self-esteem, emotional awareness, assertiveness, independence and self-realization); (2) interpersonal (includes empathy, social responsibility and interpersonal relationships); (3) stress management (includes stress tolerance and impulse control); (4) adaptability (includes reality testing, flexibility and problem-solving) and (5) mood (includes optimism and happiness) (Bar-On, 2006).

The investigation suggests that EI is connected with academic success (Khajehpour 2011; Qualter, Gardner, Pope, Hutchinson & Whiteley, 2011), corresponding with a higher level of EI to a better performance in school. It should also be noted that subjects with a high level of EI tend to suffer less psychological disorders.

Inspired by the projective test Era uma vez… (Fagulha, 1997; 2002) the Emotion Icons were created by Carreteiro (2015), which is a semi-projective test that aims for the assessment and psychological intervention in the context of human emotions. It includes four sections (children, youth, adults and seniors) with each one having two versions (male and female). All versions show the same set of twelve facial expressions, differing only in gender and age. Each section always begins by displaying a picture of the main character and the subject is asked to answer the questions on the character: What's his/her name? How old is he/she? How is he/she feeling now? This is followed with a picture of the supposed character's family with full body images and an expressionless face (Carreteiro, 2015). The subject then must answer the questions: Which is the most happy/sad family member? Which of them does the character like most? Which of them would the character like to be? After answering the questions, the subject assigns an emotion icon to each family member. The results of the test must be interpreted according to the psychodynamic model and for each case we must relate the thematic of the picture with the emotion chosen by the subject, trying to figure out the emotions already generated and their meaning to the experience and psychological functioning of each child (Carreteiro, 2015). To date, there are no studies published with this instrument yet.

Another kind of material concerns children's stories. Since childhood stories have evoked in us fantasies, dreams and emotions, being an instrument that facilitates emotional and affective growth. Bettelheim (1976) emphasizes that the fanciful nature of stories is important because it makes it obvious that its goal is not to give useful information on the external world but on the inner psychological processes that take place in an individual. Thus, children go through several stages that lead them to the acquisition of knowledge, values and affections decisive in their personality consolidation. The contribution of children's literature to children's emotional and affective growth is indisputable (Branco, 2001).

Looked at in this way, children's books, validated by experts in children's literature and psychology, may serve as effective instruments to assess SEC in children with and without ID. Two of these books, "Sebastião" (Conti, 2002) and "About friends" (Santos, 2013) take into account the cognitive and emotional components that involve and encourage the infant universe. The books are presented and read to children who are then questioned, individually and in semi-structured interviews, with the purpose of perceiving the emotions identified (Faria, 2011). Their answers revealed that children with ID reveal difficulty in understanding

oral statements, not perceiving that some questions concerned the generality of characters' emotional states, answering for specific situations. The use of past and future tenses are particularly difficult for these children (Thirion-Marissiaux & Nader-Grosbois, 2008). However, this instrument can be used with children with ID since the interviewer is free to adapt and clarify his/her speech so all children can understand.

In short, from the literature review, we highlight these instruments to assess SEC, considered the most adequate to use with children with ID.

## 3. Programmes to Promote Socio-emotional Competence

SEL is the process whereby children and adults are able to recognize and manage their emotions, make responsible decisions, establish positive relationships with others and become individually healthier and more productive (Zins, Bloodworth, Weissberg, & Walberg, 2004). Academic success will be enhanced. Hence, schools will also have more success in their educational mission when integrating efforts to promote not only academic, but also social and emotional learning (Elias et al., 1997). Although SEL plays an important role in non-academic outcomes, the truth is it is vital to improve academic performance and lifelong learning (Zins et al., 2004). A way to promote SEL in schools is based on the use of programmes to promote these competences. By means of safe, endearing and productive environments, the programmes lead to a closer relationship with school which is associated with decreased risky behavior and increased academic success (Elbertson, Brackett, & Wissberg, 2010).

For a programme to be considered of high quality, it must be linked to a theoretical background and emphasize cognitive, affective and behavioral skills (Vale, 2012). Some authors grouped these three types of skills in five major categories, which represent the first step for SEL: (1) awareness of self and others; (2) positive attitudes and values; (3) making responsible decisions; (4) communication skills and (5) social skills (Hawkins, 1997; Payton, Wardlaw, Graczyk, Bloodworth, Tompsett, & Weissberg, 2000). It is believed that the most successful schools are those which have developed efforts to promote in children not only academic learning but also SEL. Likewise the Collaborative for Academic, Social and Emotional Learning (CASEL, 2003) argues that these programmes should be for all students since all of them benefit from the socio-emotional development, including children with ID. The length of the programme is another criterion mentioned by CASEL as the practice of some strategies and their repetition in order to verify a cognitive, behavioral and socio-emotional integration is important. Payton et al. (2000) state that programmes should include assessment methods to achieve goals, which is important for their empirical validation. Existing studies

demonstrate that a well-structured programme leads students to successful academic, socio-emotional, behavioral and health outcomes (Zins et al., 2004).

The literature review suggests several such programmes one of which is Promoting Alternative Thinking Strategies (PATHS) (Greenberg & Kuché, 1993). A programme for 1st cycle children it emphasizes conflict resolution, thinking before acting, emotions management and expression in an effective way. It was designed to promote SEC in students and teachers as well as to reduce aggression and behavior problems while improving productivity in classroom. Vale (2012) adds that PATHS aims to promote emotional literacy, develop SEC, decrease and prevent emotional distress, be aware of behavioral and emotional problems and reduce the risk of social maladjustment. The results achieved with this programme point to an improvement in the resolution of social and emotional problems, an increase in the emotions recognition and understanding (self and others) and a decrease in conduct problems by promoting self-control (Ocak & Arda, n.d., as cited in Amaral, 2014).

PATHS has already been tested in various contexts, proving to be effective with children with ID, its use having led to immediate and significant improvements regarding comfortable and uncomfortable feelings. It also shows an increase in the understanding of emotions as well as an improved ability to identify emotions in others in addition to a greater ability in problem-solving and self-control (Greenberg & Kusché, 1993).

Another programme that has proven to be effective is the GROP's Programme on Emotional Education (Grupo de Recerca en Orientació Psicopedagogica) created in 1998 under the supervision of Rafael Bisquerra. This programme is intended for children to control the emotion concepts, the types of emotion and affective phenomena, and also that children become aware of the main features of emotions (Bisquerra, 2003). This programme not only allows children to broaden their emotional vocabulary but also use coping strategies towards resolving emotionally difficult situations, reaching emotional self-control in order to properly manage emotions and conflictive impulses (Bisquerra et al., 2012). It is divided into five thematic blocks: (1) emotional awareness; (2) emotional regulation; (3) self-esteem; (4) SEL and (5) life skills. Each of these blocks contains six activities with guidelines, specific vocabulary and suggestions, as adaptations according to the child's age. The strategies include some short stories with puppets, being recommended to create a mascot and making use of daily routine experiences. The programme, already implemented in educational centres, has been found to be effective in reducing conflicts, increasing empathy, solidarity and cooperation, reading, writing and calculation improvement, greater involvement of the school community in the development of SEC in addition to a greater awareness of families to SEL (Bisquerra, 2012; Cassá, 2003; Segovia, 2012).

Crescer a Brincar (Growing Playing) (Pereira & Moreira, 2000) is a programme using comics which stresses the subjects' active role in knowledge construction, privileges the decision-making process, motivational factors and vicarious learning. It is used with children throughout the 1st cycle of basic education and its main purpose is the promotion of psychological adjustment by strengthening protection factors and reducing risk factors (Crusellas, Cruz, & Barbosa, 2013). Applied in the classroom context, it focuses on working discipline and self-control, self-esteem, differentiation and emotional management, social skills, ability in decision making and conflict resolutions, providing strategies that help to prevent indiscipline, delinquency and school failure. Divided into several sessions, Crescer a Brincar is explored in a playful manner and adapted to children's age, which enables its use with children with ID. This exploration helps children to deal with their inner world while various dimensions are promoted as motivation, self-esteem, decisions and consequences, perceived (in)vulnerability, emotional differentiation and management, assertiveness, distinction between facts and beliefs and values clarification (Moreira, 2001, as cited in Gonçalves, 2013). Several studies show its effectiveness in terms of assertiveness, self-confidence and decision-making (Pereira & Moreira, 2000; Freitas, Prette, & Prette, 2012; Crusellas et al., 2013).

Incredible Years (Webster-Stratton & Reid, 2004) refers to a series of programmes for parents, teachers and children having started off as a therapeutic programme of treatment and intervention for children aged 4-8 with opposition, defiance and behavior disorders. It includes a curriculum on social development, problem solving and behavior management to intervene with children who show aggressive behavior through group work, which is called Dina Dinosaur Classroom Curriculum, aiming to improve SEC, reduce behavior problems and enhance academic competence (Webster-Stratton, 2008). Thus, the two assumptions that support this programme concern the intervention with children presenting behavioral problems and the prevention of these problems (Vale, 2012). The intervention is further enhanced with the use of a parental programme that aims to improve positive parental interactions, family communication and partnership with school (Webster-Stratton & Reid, 2004). The goals of the programme for teachers relate to the SEC development and academic skills, problem solving strategies, behavior management, positive interactions with peers, decrease of negative behaviors, increase of empathy skills, decrease of aggressive and opposition behavior (Institute of Education Sciences, 2011).

Zippy's friends is a different programme. Its main purpose is to train children to cope with adversity and less positive events of daily life (Mishara & Ystgaard, 2006). The hypothesis underlying the programme development is that if children learn early on to expand

their repertoire of coping strategies, they would be less likely to develop serious problems during childhood, adolescence and even adulthood, when faced with the unavoidable occurrence of problematic situations. Studies carried out by the authors indicate that children's coping strategies can be enhanced with this intervention since this integrates problem solving and SEC understanding (Wong, 2008). This is a programme that not only addresses children's problems and difficulties but also highlights their strengths, skills, positive emotions and an effective use of support and resources. It is built around six illustrated stories about a group of children, their families, friends and a pet insect, Zippy. The programme neither tells children what to do nor indicates to them what is correct or wrong, but encourages them to explore and think for themselves and emphasizes the importance of talking with others, listening, giving and getting help (Mishara & Ystgaard, 2006). Zippy's friends was designed for children attending the beginning of the 1st cycle of basic education, but some studies have shown its success with pre-school children (aged 4-5) and with children attending the four years of the 1st cycle (aged 6-9), being considered effective with children with different education needs (Clarke, 2011; Wong, 2008).

Devagar se vai ao longe (Slowly but Steadily) (Raimundo, 2012) is a programme that meets the conceptual framework of SEL programmes. To be used in the classroom, it aims at the development of SEC, specifically socio-emotional effectiveness, understanding, management and expression of emotions (Faria, 2011). Its main goals are the improvement of self-awareness and self-control skills in order to achieve success in school and in life by the use of social and interpersonal awareness skills to establish and maintain positive relationships and by demonstrating decision-making competence as well as responsible decisions and behavior in personal and social contexts (Raimundo, 2012). The strategies include reading stories based on real or imaginary facts, reflection on the same stories, brainstorming on how to deal with social and emotional problems, role-playing better attitudes and behaviors, pedagogical games, group-work, training of daily skills and reinforcement of positive behavior and attitudes. With this programme, significant benefits on the intervention groups were already observed, mainly at the SEC level and psychological adjustment. However, in the control groups an improvement was noted in terms of emotional awareness although anxiety and relationships with peers worsened (Faria, 2011).

In a professional and preventive approach emerges the series of books Vamos sentir com o Necas (Let's feel with Necas) by Carvalho, Caldeira, Maia, and Correia (n.d. as cited by Maia, n.d.), which is a project that works with the emotions in children as a way to encourage self-esteem, healthy living and facilitate academic success (Maia, n.d.). In each book the reader finds an attractive story in which the characters are a group of children with a

special friend, the dolphin Necas. Each story is followed by some interactive strategies which correspond to a set of simplified tools to help children to deal with their emotions (Moniz, Amaral, Carvalho, Caleira, & Sousa, 2015). The children of the stories have the same fears and apprehensions, suffer the same doubts and concerns, and have the same surprises and joy of real children. Necas identifies the emotions and teaches his friends, using simple and direct language, the role they play in our life and the appropriate way to use them in the promotion of our wellbeing (Maia, n.d.).

These programmes aim to: (1) promote children's knowledge of basic emotions; (2) promote the ability to identify basic emotions in themselves and in others; (3) enable adequate and positive ways of dealing with different emotional states; (4) promote self-motivation, empathy and assertiveness, considering their facilitating role in academic success and in life adjustment; (5) train the use of SEC as important resilience tools and in the prevention of risky behavior; (6) promote the recognition of emotions and (7) enable adequate strategies for emotional regulation (Amaral et al., 2015; Moniz, 2015).

## 4. Final considerations

To sum up, there is indeed a wide range of measures to assess SEC, although only a few have been used with children with ID. Among all, TEC (Pons, Harris, & Doudin, 2002) seems to be the most suitable one to use with this population, as it provides an opportunity to assess several components of SEC. Additionally, there is a Portuguese version and it has already been used with children with ID, being simple to apply and appealing for children.

While programmes designed to improve SEL provide some evidence of their use with children with ID, those analysed in this paper may provide a solid basis to the construction of a new programme, specifically directed for this population. A new programme is required in order to meet the needs of children with ID, making use of simple and clear language, clear illustrations and simple activities, while those analysed in this paper seem to be complex and more difficult to use with this population.

Previous studies that aimed to give answers to questions related to the way that children with ID express, identify and regulate their emotions, have found that this population presents some difficulties in the understanding and organization of coping strategies (Pereira & Faria, 2015). Following the investigative sequence of the available programmes, the analysis formed the basis to initiate the construction a new programme, which is already being formulated. This new programme will have an innovative methodology, with differentiating objectives beyond its social relevance in relation to existing programmes. This new programme will certainly

address the gaps found in the current programmes analysed in this paper as it takes into consideration several limitations of children with ID.

This new programme is part of a new study that is currently being conducted in order to validate its effectiveness in the promotion of SEC in children with ID. For that, it will use the TEC (Pons, Harris & Doudin, 2002) as the pretest and posttest, once it assesses the components of SEC that the new programme will include.

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