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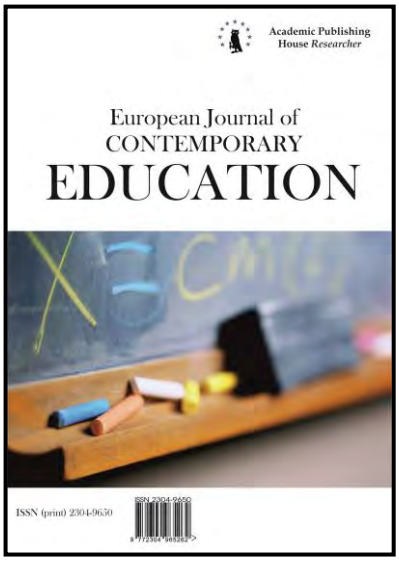

Emotion Regulation and Its Relationship to Social Competence Among Kindergarten Children in Jordan

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Abstract

The study aimed at exploring the levels of emotional regulation and social competence among kindergarten children. Further, the relationship between emotional regulation and social competence and its sub-domains: (overall emotional adjustment, social interactions with peers, and social interaction with adults). Furthermore, the significant differences in the relationship between emotional regulation and social competence that are caused by gender. The study researchers used the descriptive and relational approaches to answer the study questions. After ensuring the validity and reliability of the two research instruments, they were applied among 220 (110 females, 110 males) Jordanian kindergarten children: The Social Competence and Behavior Evaluation Preschool Edition (SCBE) and the Emotion Regulation Checklist (ERC). The study results revealed that there is an average level of emotion regulation and an average level of social competence among the participants. There was a statistically significant relationship between children's emotion regulation competence and their social competence, as a correlation between emotion regulation and each of the social competence subscales (general adaptation, overall emotional adjustment, social interactions with peers, and social interactions with adults) was high and statistically significant. Finally, the results revealed that there was no statistically significant gender discrepancy in the relationship between emotion regulation and social competence. Implications and future research recommendations were discussed.

Keywords: emotion regulation competence, social competence, relationships, kindergarten children, Jordan.

1. Introduction

Social competence is one of the essential indicators of children's functioning across several settings. It predicts their ability to sufficiently interact with others like their peers, teachers, and

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other community members. Social competence is a broad construct which comprises of social skills, social acceptance, relationships with others and the functional outcomes of social interactions (Rose-Krasnor, 1997; Rubin et al., 2006).

Social competence has been mentioned as a vital indicator of adaptive functioning in early childhood. It involves the formation of relationships with others, as well as managing to maintain these relationships (Burt et al., 2008). The inability to fulfill social competence can result in several negative outcomes, which include peer rejection (Miller-Johnson et al., 2002) as well as possible withdrawal from peer groups (Hodges et al., 1999).

Research has frequently found that during preschool years, social competence steadily rises because children obtain substantial cognitive and emotional maturity and self-control. At the same time, aggressive behaviour and angry outbursts steadily decrease (Lafreniere, Dumas, 2003).

Previous research related to predictors of social skills and peer relationships has concentrated on how children perceive social partners, and how they handle social cues and produce responses to various behaviours when interacting with peers (Dodge et al., 1986). However, recent research has paid attention to children's emotion-relevant behaviours which can be seen in an environment where they interact with their peers. It includes the possibility of predicting children's responses to others' behaviours (Denham et al., 2003; Eisenberg et al., 2000; Graziano et al., 2007). These behaviours include children's temperament and their reactions to both positive and negative behaviours coming from others, as well as their ability to manage those reactions adequately, that is also known as their emotion regulation ability (Calkins, Hill, 2007).

In general, emotion regulation competence refers to the management of responses emerging from cognitive-experiential, behavioural-expressive, and physiological biochemical components (Salovey, Sluyter, 1997). Specifically, it is defined as the "Extrinsic and intrinsic processes responsible for monitoring, evaluating and modifying emotional reactions, especially their intensive and temporal features, to accomplish one's goals" (Thompson, 1994: 27-28). Moreover, emotion regulation processes are defined as the skills, behaviours, and strategies that aim to regulate, amplify, or inhibit emotional experiences and expressions. These skills and strategies can range from conscious to unconscious, and automatic to effortful behaviours (Calkins, Hill, 2007). Research suggests that emotional knowledge is used by children, in order to assist in the process of regulating their own emotions (Salovey, Sluyter, 1997). Furthermore, previous studies had found that children's self-regulation abilities predicted children's social skills and peer acceptance during preschool (Eisenberg et al., 1993).

Recent studies have suggested a link between self-regulation abilities and social competence. Blandon et al. (2010) suggested that toddlers with lower self-regulation skills have higher levels of behavioural problems. That is, they were less liked by their peers due to having fewer social skills by the time they attended kindergarten (Blandon et al., 2010). Rydell et al. (2007) also suggested that emotion regulation predicted social functioning for children up until they entered middle childhood.

The relationship between emotion regulation and children's vagal regulation was discussed in previous literature. For example, Cole et al. (1996) found that there are no significant differences between the vagal regulation of expressive and inexpressive groups. Stifter and Corey (2001) experimenters rated infants with greater vagal regulation as more social. Finally, Graziano et al. (2007) found that higher respiratory sinus arrhythmia (RSA) was related to more positive relationships, which provided support for the hypothesis stating that children who have better vagal regulation have a more significant capacity for social functioning than children with less vagal regulation.

When it comes to emotion regulation, Florence Good enough was among the first researchers who studied age trends as he conducted a study where he supplied mothers with a questionnaire about certain behaviours. He found a developmental trend which suggested that anger and aggression were highest at age two, after which they steadily declined through preschool years, though they remained more common in boys than in girls. These age trends were later accompanied by gender trends. Studies suggest that girls are more likely to seek social support than boys, in order to deal with affliction or distress (Salovey, Sluyter, 1997). Furthermore, emotion focused regulation that is connected to the cognitive experiential component of emotion is more likely to be used by girls than boys. Thus, there are several noticeable differences between the strategies used by girls and boys for regulating negative emotions. As example, girls are being more likely to seek support and guidance from other individuals. They prefer to use emotion-focused

regulation whereas boys are more likely to prefer to use physical exercise to diminish negative emotions (Salovey, Sluyter, 1997).

As for social competence, a study with a sample of 257 participants examined emotion regulation as a mediator between early behavioural inhibition and later social competence. The results showed that behavioural inhibition predicted less engaged emotion regulation strategies, which is engaged emotional regulation predicted higher social competence for highly inhibited children (Penela et al., 2015).

Finally, a current research study utilized data from the National Institute of Child Health and Human Development (NICHD) examined a development model focusing on early caregiver environments as predictors of social emotional competence. The model included features of parenting and emotion regulation, and the findings supported the hypothesis that features of the caregiver environment in early stages like toddler and preschool periods had significant influence on social emotional competence in 1st grade children (Underwood, Rosen, 2011).

In conclusion, emotion regulation skills predict children's adjustment and social competence (Diener et al., 2002; Thompson, Lagattuta, 2006; Zeman et al., 2006). Thus, when children with high social competence face peer rejection, they employ more effective coping strategies (Reijntjes et al., 2006).

Given the previous discussion, the importance of examining emotion regulation among children was discussed thoroughly in international settings. As a result, this study is important because it presents existing knowledge within a different early education national context in Jordan regarding the topic of emotion regulation among kindergarten children in Jordan. This study highlights many aspects related to emotion regulation and social competence among children in Jordan.

1.1. Emotion Regulation in the Jordanian Context

Some studies were conducted to investigate emotion regulation in early childhood in the Jordanian context. One of the studies investigated the relationship between emotion regulation and academic difficulties in early childhood education (Mattar et al., 2018). The study examined the level of emotion regulation and the level of academic difficulties of first grade students in Jordan. Findings showed that there is a significant relationship between emotion regulation and academic difficulties especially for male students. The results draw attention to emotion regulation as an essential factor in predicting academic success. It can play an effective role in raising children's preparedness for school and making them more capable of completing tasks in the elementary stage. This is expected to lead to better school functioning in their future education. In addition, Alziyoudi and Mattar (2019) investigated the predictive ability of cognitive control for emotion regulation and social competence with (adults and peer) among first grade students at private schools in Amman-Jordan. The results showed a positive relationship between cognitive control and emotion regulation among children. Furthermore, results indicated that there are no differences in the relationship between cognitive control and emotion regulation according to gender variable.

Finally, Bisharat and Mattar (2019) identified the relationship between the emotional regulation and school readiness among first-grade students. the results showed a statistically significant positive relationship at the significance level (0.05) between emotional regulation and school readiness, the results also showed that emotional regulation explained (12.3 %) of the variance in school readiness.

The review of previous research of the Jordanian context regarding emotion regulation showed that the focus was on the emotion regulation relation with academic difficulties and school readiness of first grade students (6 years of old). In addition, previous research investigated the predictive ability of cognitive control for emotion regulation and social competence with (adults and peer) among first grade students. All of the conducted studies in the field of emotion regulation in Jordan recommended conducting further studies at different age stages. As a result, this study investigated preschool stage and focused on kindergarten children's emotion regulation and its relationship to social competence.

1.2. Research Questions

This study aimed to examine the relationship between kindergarten children's emotion regulation and social competence in Jordan. Specifically, the study attempted to answer the following questions:

(1) What are the levels of emotional regulation and social competence among kindergarten children?

(2) What is the relationship between emotional regulation and social competence and its sub-domains: (overall emotional adjustment, social interactions with peers, and social interaction with adults)?

(3) Are there significant differences in the relationship between emotional regulation and social competence that are caused by gender?

1.3. Theoretical Framework

Social competence is considered as an indicator of adaptation in early childhood stage. It refers to how individuals can form and maintain relationships with others. Failure in achieving this competence can affect various developmental aspects of the child. In the past, focus on this component has been solely related to social skills and peer relationships and their relation to social competence. However, recently more attention was given to emotions and behaviours pertaining to them, and how they might relate to social competence. One of these behaviours is emotion regulation. In early childhood period, children are still developing their abilities to regulate emotions through modelling, language acquisition, and social interactions, which adds to their ability to regulate.

The research revealed that studying emotional regulation seems to emerge from two theoretical approaches: the personality psychological approach and the functionalist emotion theory. The personality psychological approach has roots in research on stress and coping, as well as the psychoanalytic study of psychological defenses. On the other hand, the functionalist emotion theory – along with the developmental psychology approach – has roots in functionalist theory which focuses on the development of emotion regulation in light of factors like socialization and temperament (Gross, Thompson, 2007). Other research has also emphasized that the study of emotions from a functional point of view pays focus to the organizational and adaptive role of emotions (Campos et al., 2004).

Thompson's (1994) definition of regulation outlines six possible ways with which emotion is regulated; these include neurophysiological responses, access to coping resources, exposure to environment, attentional processes, responses and behaviour, and construals and attributions. Furthermore, Cole et al. (1994) have highlighted the fact that emotion regulation brings out the variation between control and regulation. Most theorists perceive emotion regulation as something which surpasses simply reducing, stopping, or controlling emotions but involves adjustment of emotional behaviors, while control merely refers to restraining of emotional processes, regardless of adjusting or regulating them (Cole et al., 1994).The opposite of suppressing or restraining emotions is sometimes needed as part of emotion regulation, in order to increase emotional arousal when needed to create a certain kind of positive atmosphere (Fredrickson, 1998).

Child's environmental variables play a role in emotion regulation. Particularly, child temperament and caregiver characteristics and behaviors, as the context of these variables, directly influence emotion regulation, which is viewed as an essential process in socioemotional competence as well as mental health (Southam-Gerow, 2013). Furthermore, it has been argued that emotional development is highly associated with social development. That is regulation between the child and his or her caregiver affects the ability of self-regulation, stressing that the ability to successfully regulate one's emotions is ingrained in positive and affective interactions between children and their caregivers (Sroufe, 1996).

Finally, several theories explain the powerful relationship between emotional and social developments. Ekman (1992) suggested that emotions prepare people to respond in interpersonal situations. Moreover, theorists suggest that emotional experiences can impact children's responses to social situations (Crick, Dodge, 1994).

2. Methods and procedures

2.1. Participants

Study participants consisted of kindergarten children (KG 2) from private Jordanian kindergartens. The study sample was randomly chosen. It comprised of 220 children: 110 males and 110 females with a mean age of 5.5 years. Stratified random sampling was employed. Twelve kindergartens were randomly selected from the same sector. From each kindergarten, one KG 2 classroom was chosen. Following this, 10 children were picked randomly from each classroom, 5 of

whom were males and 5 females. The lead teachers of each classroom filled in the two questionnaires for the selected children.

2.2. Measurements

The implemented research instruments consisted of: (1) The Social Competence and Behavior Evaluation Preschool Edition (SCBE) by Lafreniere and Dumas (2003), and (2) the Emotion Regulation Checklist by Shields and Cicchetti (1997).

The SCBE is a standardized instrument which investigates patterns of social competence, affective expression as well as adjustment difficulties in children whose age ranges between 30 months to 78 months. It is a questionnaire consisting of 80 items on a six-point rating scale. It can be completed by teachers. The SCBE not only provides contextual, reliable and valid description of behavior which is useful to early childhood specialists, but also assesses children's positive social adaptation or competence.

The SCBE offers eight basic scales and four summary scales. Each basic scale contains 10 items. To answer the research questions three basic and two summary scales were used. The basic scales are: (1) the Overall Emotional Adjustment Scale, (2) the Social Interactions with Peers Scale, and (3) the Social Interaction with Adults Scale. As for the summary scales, both of the Social Competence Scale and the General Adaptation Scale were used (Lafreniere, Dumas, 2003).

The Emotion Regulation Checklist consisted of 24 items that describe child's behavior on a four point Likert scale. It evaluates emotion regulation in preschool and school aged children. It can be completed by parents, teachers, or adults who know the child well. It is a valid and reliable measure which has been extensively used in research on emotion regulation in children (Shields, Cicchetti, 1997). It has been translated to different languages and successfully used (Molina et al., 2014).

2.3. Validity and Reliability of Research Instruments

For both of the instruments, the following steps were taken to ensure validity and reliability in the Jordanian version of these measures.

The items in the scales were initially translated, and then three university faculty members reviewed the primary translation individually according to the following criteria: (a) the linguistic correctness (word by word translation/vocabulary correctness) of the translation in comparison to the English version; (b) the content resemblance (to ensure that each item in the translated version is similar to the one in the original version in terms of content, meaning, and the purpose of measurement of the item; the total number of items is similar to the ones in the original version; the total number of subscales if applicable and the sequence of subscales is similar in both versions; and completion directions are similar in both versions); (c) the cultural appropriateness of each item's content for the Jordanian culture; and (d) the comprehensibility and clarity for its targeted populations. All amendments were mainly related to improving and modifying the readability of the translated items. All of the reviewers' comments were considered and modifications were made on the translated version.

Back translation was another procedure used to assure the translation correctness and the ability to match the original version. A faculty member proficient in Arabic and English translated the translation back from Arabic to English. This back-translated version was then compared with the English version item by item to ensure that it was similar to the original one.

The validity of the scales was achieved in the following ways: (a) face validity which was accomplished through the previously mentioned translation steps for both of the scales, and (b) construct validity, as the internal consistency of the translated version of the SCBE was checked through calculating the correlation coefficient between the sub-scales forming the scale, and the total score of the scale, and the internal consistency of the translated version of the ERC was checked through calculating the correlation coefficient between items, and the total score of the scale. Both measures had internal consistency which was statistically significant.

The reliability coefficients were checked through looking at the internal consistency: This was measured according to Cronbach's Alpha, with a reliability coefficient of (0.952) for the total score of the SCBE. As for the ERC, the reliability coefficient of the total score was (0.84), which indicated high reliability for both instruments.

2.4. Statistical treatments

The researchers used The Statistical Package for Social Sciences (SPSS) software to analyze research data and accomplish the following statistical treatments: 1) Means and standard

deviations were used to answer the first question, 2) Pearson Correlations were used to answer the second question, and 3) Pearson Correlations and Fisher r-to-z Transformation were used to answer the third question.

3. Results

3.1 First Question

Means and standard deviations were used to answer the first question: What are the levels of emotional regulation and social competence among kindergarten children? Table 1 explains the results.

Table 1. Means and standard deviations of the social competence subscales

Social competence subscales	Mean	Std. Deviation
Emotional adjustment	4.3	.838
Peer interaction	4.16	.789
Adult interaction	4.28	.847
General adaptation	4.24	.767
Social competence	3.83	1.228
Level of emotion regulation	2.86	.475

Table 1 revealed that the mean level of emotion regulation for the sample was (2.86). That is the level of emotion regulation was average. On the other hand, the mean level of social competence for the sample was (3.83), general adaptation (4.24), overall emotional adjustment (4.30) social interactions with peers (4.16), and social interactions with adults (4.28), which was also average for all the subscales.

3.2 Second Question

Pearson Correlations were used to answer the second question: What is the relationship between emotional regulation and social competence and its subdomains: (overall emotional adjustment, social interactions with peers, and social interaction with adults)? Table 2 describes the results.

Table 2. Pearson Correlations between emotional regulation and social competence and its subdomains

Social competence subscales		Emotional Regulation
Emotional adjustment	Pearson Correlation	.728**
	Sig. (2-tailed)	.000
Peer interaction	Pearson Correlation	.676**
	Sig. (2-tailed)	.000
Adult interaction	Pearson Correlation	.697**
	Sig. (2-tailed)	.000
General adaptation	Pearson Correlation	.751**
	Sig. (2-tailed)	.000
Social competence	Pearson Correlation	.553**
	Sig. (2-tailed)	.000

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2 indicated that the correlation between emotion regulation and social competence was (0.553), general adaptation (0.751), overall emotional adjustment (0.728), social interactions with peers (0.676), social interactions with adults (0.697). The correlation between emotion regulation and each of the social competence subscales was high and statistically significant.

3.3. Third Question

To answer the third question: "Are there significant differences in the relationship between emotional regulation and social competence that are caused by gender?" Pearson Correlations were used, and Table 3 demonstrates the results.

Table 3. Pearson Correlations between emotional regulation and social competence regarding gender

Gender			Emotional Regulation	Social Competence
Male	Emotional Regulation	Pearson Correlation	1	.740**
		Sig. (2-tailed)		.000
	Social Competence	Pearson Correlation	.740**	1
		Sig. (2-tailed)	.000	
Female	Emotional Regulation	Pearson Correlation	1	.761**
		Sig. (2-tailed)		.000
	Social Competence	Pearson Correlation	.761**	1
		Sig. (2-tailed)	.000	

**. Correlation is significant at the 0.01 level (2-tailed).

Table 3 indicated that the correlation between emotion regulation and social competence regarding male gender was (0.740), and regarding female gender (0.761). That is, the correlations between emotion regulation and each of the social competence regarding male and female were high and statistically significant.

Fisher r-to-z Transformation was used to determine if there are significant differences in the relationship between emotional regulation and social competence that are caused by gender. Table 4 demonstrates the results.

Table 4. Fisher r-to-z Transformation between emotional regulation and social competence that are caused by gender

Sig	z-value	Female	Male
0.741	-0.335	.761**	.740**

**. Significance level of 0.01

Table 4 showed no statistically significant gender discrepancy in the relationship between emotion regulation and social competence when using the Fisher r-to-z Transformation, as the z-value equalled (-0.335).

4. Discussion

The study results indicated average levels of emotion regulation among kindergarten children in Jordan. This result is expected because at this age children have just entered the school environment and they are starting the process of building their emotion regulation strategies and their social skills. Children in preschool are learning to talk about their emotions. They are developing their emotion language including receptive and productive vocabulary. By spending more time in preschool settings, children can develop the language by which they can describe their emotions (Zeman et al., 2006). By spending more time in preschool, children's verbal abilities continue to develop which notably contributes to their emotion regulation skills (Camspos et al., 2004).

The emerging capacity for children to control and manage their emotions is related to language and cognition development. That is, emotional development can be understood in relation to social, cognitive, and linguistic development. Also, it is affected by different cultures. For example, the components of school environment, such as teachers, peers, and even parents contribute to emotion regulation through feedback and modelling within the context of the micro-system, which places several demands on the child in order to adapt to different groups and learn to apply emotion regulation (Berns, 2016).

In addition to the above factors, there is a biological as well as environmental transition from late childhood into adolescence that affects emotion regulation. Recent evidence in developmental

neuroscience research indicates that the regions of the brain which are associated with emotion regulation include the prefrontal cortex, anterior cingulate cortex, and the amygdala, are actually continuing to mature and develop through childhood to adolescence (Beauregard et al., 2004).

The study results also indicated average levels of social competence among the participants. This is consistent with research that noted a consistent rise in social competence throughout early childhood education as children acquire greater cognitive skills, emotional maturity, and self-control. These factors are associated with lower levels of angry outburst and aggressiveness. Children also learn negotiation skills as well as emotion regulation in this developmental stage (Lafreniere, Dumas, 2003).

In addition, the results of this research also indicated that the correlation between emotion regulation and social competence was high and statically significant. Children with high emotion regulation ability tend to have higher attention and lower impulsiveness, as well as more efficient coping strategies which all go to hone their social skills that they employ in their interactions with peers and others which in its turn affects all aspects of children's growth and development. This result agrees with previous research that found a relationship between emotion regulation and general adaptation, overall emotional adjustment, social interactions with peers, and social interactions with adults. Children who have high emotion regulation are expected to be more competent in managing negative emotions as well as interacting with others. It is possible that the children's anger management abilities when interacting with peers are related to the conscious control of emotion (Eisenberg et al., 1994). This effortful control is also thought to be related to high levels of sympathy, prosocial behavior, and ultimately, social competence (Spinrad et al., 2006; Eisenberg et al., 1993; Eisenberg et al., 1995; Eisenberg et al., 2003). Therefore, effortful control may give the child the base or skills needed to engage in socially constructive behaviors while interacting with peers. This can enhance peer liking (Arsenio, Lemerise, 2004). Therefore, school aged children have a higher ability to employ effortful, active, and effective regulation strategies, and to re-evaluate different situations more positively (Kalpidou et al., 2004; Stansbury, Sigman, 2000).

When it comes to the lack of gender discrepancy in the relationship between emotion regulation competence and social competence, some previous studies disagreed and suggest that girls are more likely to seek social support than boys, in order to deal with affliction or distress (Salovey, Sluyter, 1997). However, other previous studies do not appear to have looked at gender differences when it comes to social competence, and past research has indicated mixed results on gender differences effect on the display of social competence (Eisenberg, 2001). Moreover, while studying gender effect on emotional functioning can be helpful, the results are inconsistent across personality, social, cultural, and situational variables, as well as the types of emotional processes employed (Brody, Hall, 2008).

Moreover, the sample used in this study was relatively small and it is possible that a larger sample would reveal significant gender discrepancies. Finally, while some studies report that girls are more likely to rate themselves as more emotionally expressive than boys, the fact that the teachers who filled out the measures could account for more objective reporting (Simon, Nath, 2004).

In summary, as children cognitively, socially, and linguistically mature within the context of preschool after they leave their care giving environment, they employ their learned skills and continue to develop more advanced self-regulation skills, including emotion regulation, managing to inhibit negative behaviors like impulsivity and anger, and learning to deal with lower emotional intensity, allowing the child to form positive socially constructive relationships with peers which can lead to higher levels of social competence and general adaptation.

5. Conclusion

This study aimed at investigating the relationship between kindergarten children's emotion regulation and social competence in Jordanian kindergartens. The main findings indicate that there was a statistically significant relationship between children's emotion regulation competence and their social competence, as correlation between emotion regulation and each of the social competence subscales (general adaptation, overall emotional adjustment, social interactions with peers, and social interactions with adults) was high and statistically significant. In addition, the results revealed that there was no statistically significant gender discrepancy in the relationship between emotion regulation and social competence.

The implications of this study can affect early childhood educators' teaching practices related to emotional development of their children. Based on the results of this research kindergarten teachers are encouraged to integrate learning outcomes that enhance emotional development in their educational plans and design more learning activities in kindergarten setting. Such activities and learning experiences can assist children in understanding and interpreting emotional cues in their environment before they can begin to learn the strategies needed to regulate these emotions. As for parents, it is recommended that they regulate their own emotions as they are their children's models. This includes emotionally coaching their children on how to interact with their peers, including showing sympathy, inhibiting impulsivity and managing their anger. All these aspects and more can be developed with emotional coaching and through parental modelling so that children can develop better social skills. Finally, further future research on identifying the effect of gender on the indicators of regulation of emotions and social competence is recommended. Furthermore, the effect of emotion regulation on other variables related to early childhood settings is highly recommended.

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