Stories, Emotions and Word Formation: Two Contextualised Interventions for Albanian Kindergartens



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Abstract

Substantial research has shown the role of emotion comprehension skills on a range of outcomes, including social competence, relationships, prosocial behaviour and even academic outcomes. Similarly, the role of morphology skills in a range of children's outcomes such as reading ability and vocabulary skills has been well-established. Research has considered children's development on emotion comprehension and morphology skills and has found interventions effective in promoting these skills, although evidence base is limited to a small set of countries. Research in Albania on these skills is sparse, and no interventions aiming to improve them have been developed or tested in Albania to date, despite the Albanian kindergarten curriculum expressing the aim to develop children's emotional and language competence. Responding to these gaps in the literature, we developed two contextualised interventions, one targeting emotion comprehension and the other morphological skills for Albanian Kindergarteners. This study included 53 kindergarteners aged 4- to 5-year-olds in two state kindergartens in Tirana, Albania. The children were randomly assigned to one of the two groups, either receiving the emotion comprehension intervention which focused solely on happiness and sadness (the emotion comprehension group) or receiving the morphological awareness intervention which focused solely on derivational morphology (the morphology group). These two groups act as control groups to one another. For both interventions we considered near- and far-transfer. Since our emotion comprehension intervention focused only on happiness and sadness, we investigated the far-transfer to children's understanding of anger and fear. Because our morphological awareness intervention focused only on derivational morphology, we explored far-transfer to children's compound morphology skills. Our results indicated that Albanian kindergarteners' have mastered emotion matching skills, perform well at receptive understanding of emotions, and have a considerable understanding of emotion-eliciting situations. They, however, perform poorly in labelling emotions, providing sometimes behavioural manifestations of emotions instead. Our results also showed that Albanian children find derivational and compound morphology tasks difficult. These sets of skills are comparable to those of children from other countries. Considering the effectiveness of the emotion comprehension intervention, we found the emotion comprehension group improved more in their overall emotion comprehension performance between pre-test and post-test than the morphology group. This was also the case for most of the emotion comprehension sub-components tested. Considering the effectiveness of the morphology intervention, we found that the morphology group improved more in their overall derivational and compound morphology performance between pre-test and post-test than the emotion comprehension group. This was also the case for all the morphology skills tested. We also found evidence of far-transfer for both interventions, which has not been explored by prior research. These findings are discussed and interpreted in this paper in relation to previous research from other countries and their implications, and suggestions for future research are made.

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1 Introduction

Research on children's emotion comprehension (EC) and morphological awareness (MA) development, has recently increased interest in these skills' developmental trajectories cross-culturally/linguistically, to inform research promoting children's EC and MA, and larger universalism-relativism debates. While MA and EC skills have been contrasted across multiple cultures/languages, research on Albanian children has been very sparse. Such research would further inform literature on cross-cultural contrasts of EC and MA skills.

EM and MA have been linked to multiple children's outcomes in different countries. EC has been found important for social skills, positive relationships, prosocial behaviour, and academic success (Ensor et al., 2011; Trentacosta & Fine (2010); Reschke et al., 2017; Voltmer and von Salisch, 2017). Children's reading abilities, vocabulary development and spelling skills have been meaningfully linked to MA (e.g., Bowers et al., 2010; Goodwin & Aht, 2010, 2013; Carlise, 2010). EC and MA interventions as such may be effective to improve children's outcomes related to social skills, academic performance, and language.

The Albanian curriculum aims to develop children's EC and MA. Nonetheless, no research has developed, implemented and/or tested EC and MA in the Albanian context. While multiple intervention studies for EC and MA have been conducted and researchers search for time- and cost-effective interventions, far-transfer of training some skills to other very similar skills has not been considered. The present study aims to explore Albanian kindergarteners' EC and MA, test two contextualised interventions developed for this study targeting EC and derivational MA, and consider their far-transfer to similar skills.

2 Literature review

2.1 Emotion Comprehension

2.1.1 Conceptualising emotions

There is a lack of universal agreement regarding emotion's definition (Izard, 2010). There have been multiple opposing perspectives regarding emotions. Here, we focus on universalist (Ekman, 1994; Scherer & Wallbott, 1994) and relativist (Lutz, 1988; Shweder & Haidt, 2000; Wierzbicka, 1998) perspectives given their importance in conceptualising and

interpreting EC data. It should be noted, however, that most researchers hold an intermediate perspective (Breugelmans & Poortinga, 2006).

Ekman (1972), holding a universalist perspective, developed the Basic Emotions Theory (BET) and the Neurocultural Theory of Emotions. He supported emotions' biological evolution whereby, as Darwin (1872) suggested there are discrete biologically useful universal facial expressions. These emotions follow emotion-triggering events (Ekman & Davidson, 1994). Ekman and Friesen (1971) supported Ekman's theories. Subjects from a Papua New Guinea tribe, who had virtually no contact with Westerners, were read emotion stories and showed pictures of North Americans displaying emotion expressions (happy, sad, fear, anger, surprise, disgust). The researchers found the participants to be competent in correct emotion expressions identification, apart from distinguishing surprise from fear. Similarly, showing North Americans pictures of emotional expressions in South Fore, they found them to competently identify the correct responses. The authors argued that this supports facial expressions' universality, at least for the emotions tested, which they came to consider 'basic' emotions.

The relativism perspective argues instead that cultural processes structure emotions (Lutz, 1988). Emotion categories and concepts are cultural products, and so is the emotional experience (Barratt, 2006). These researchers usually consider emotion expressions (e.g., people smiling/laughing from contempt instead of happiness; Klineberg, 1940) and language (e.g., focusing on culturally specific emotion words, arguing that these words could portray emotions' existence within a culture; Sabini & Silver, 2005). This approach has been contested with arguments that words' non-existence in a country does not necessarily portray feelings' non-existence. For example, German having a word meaning satisfaction regarding someone's misfortune ('Schadenfreude') and some other cultures not, does not mean that only Germans experience this emotion (Proyer et al., 2009).

Despite the mentioned disagreements, there is a general consensus that emotions and their expressions are distinct from one another, and are initiated by emotion-triggering events. Izard (2010), surveying 34 emotion scientists, found that researchers agreed on emotions comprising neural circuits, systems of response, and feeling processes that motivate cognition and behaviour and deliver information to the experiencer. Ekman (2016), also surveying emotion researchers, found considerable agreement on universal emotion expressions and on the empirical establishment of happiness, sadness, anger, fear, and disgust as emotions. Less

agreement was found for universal emotion-eliciting events, physiological responses, and appraisal processes.

Here, we treat emotions (viz. happiness, sadness, fear, and anger) as discrete and distinguishable from one another regarding their internal states, labels, facial expressions and the emotion-eliciting events. We support the view, though, that culture may influence which events/situations elicit which emotions (e.g., what is seen as appropriate/inappropriate in a culture may influence the protagonists' feelings in a situation). This is also our reason for considering Albanian authors' children's books important for our interventions, and for choosing a culturally-sensitive EC test.

2.1.2 Developmental Perspectives on Emotion Comprehension in Early Childhood

Extensive research suggests that children's EC develops with age. Pons et al. (2004) supported this through an influential study. Based on previous research, Pons et al. (2004) conceptualise EC as children's competency in nine components: emotion recognition and labelling (Recognition, Component I); understanding of external causes as emotion-elicitors (External Cause, Component II); and understanding that: desires influence emotions (Desire, Component III); one's beliefs affect emotions (Belief, Component IV); memory influences emotions, (I.e., over time emotion might decay, but elements that act as reminders can re-trigger emotions; Reminders, Component V); psychological strategies are more effective emotion-regulation strategies than behavioural ones (Regulation, Component VI); people can hide emotions (Hiding, Component VII); someone might experience more than one, even conflicting, emotions at a time (Mixed, Component VIII); and that an action's morality may affect emotions (Morality, Component IX).

Pons et al. (2004) assessed 100 children aged 3- to 11-years-old in Oxford, UK, through the Test of Emotion Comprehension (Pons & Harris, 2000), finding EC increased with age across three developmental periods, each comprising the emergence of three different emotion comprehension components. The first developmental period, present at around 5-years-old, includes 'recognition', 'external cause' and 'reminders' (external components). The second developmental period, present at around 7-years-old, includes 'desires', 'beliefs' and 'hiding' (mentalistic components). The last developmental period, present at around 9- to 11-years-old includes 'regulation', 'mixed', and 'morality' (reflective components).

Pons et al. (2004) found that between components of different developmental periods there is a hierarchical structure (i.e., first developmental period components are prerequisites for second developmental period components, and so on). These findings aligned with those of previous research considering one or two EC components at a time with children of different ages (e.g., Cutting & Dunn, 1999; Harris et al., 1989; Lagattuta & Wellman, 2001; Lake et al., 1995), with inconsistencies only regarding 'reminders' found to develop earlier and 'desire' found to develop later by Pons et al. (2004). Importantly for our study, Pons et al.'s (2004) research suggests that kindergarten children extensively develop their 'recognition', 'external cause' and 'reminder' skills at kindergarten-age (including 4- to 5-year-olds).

Research with other EC tools designed specifically for kindergarteners, which usually focus on 'recognition' and 'external cause' components (e.g., The Emotion Matching Task; Izard et al., 2003) also supports children's 'recognition', 'external cause' and 'reminder' components' development during kindergarten years. Such research in different countries does not tend to report ceiling effects for kindergarteners (Morgan et al., 2010; Alonso-Alberca et al., 2012), indicating the potential of these components' development during kindergarten years. Because these three components are developing at kindergarten age, and are perquisites for the other EC components, we deem appropriate for kindergarten intervention to focus on deepening knowledge of these three EC components. As noted in Section 2.1.5, many kindergarten intervention studies tend to focus on different components from these and/or in more than these three components.

Another EC skill suggested to develop with age is differentiating between emotions in terms of both valence (positive/pleasant versus negative/non-pleasant) and arousal (high versus low activation). Studying 6- to 25-year-olds Nook et al. (2017) found that emotion representation developed with age, shifting from a mono-dimensional (considering only valence) to a bi-dimensional configuration (considering both valence and arousal). Nook et al.'s (2017) study is cross-sectional, thus developmental claims should be treated cautiously. Despite Nook et al.'s (2017) research not including kindergarteners, other research on face perception in newborns has found that they are able to distinguish facial expressions according to valence (Farroni et al., 2007). Development in emotions' representation along the arousal continuum between infancy and early childhood should therefore be studied. Studies have also found a positivity bias in younger children's emotion-terms processing, with younger children being quicker and more accurate in processing categorisation of

positive emotion terms than negative ones, which seems to reduce or even reverse with age (Bahn et al., 2017).

2.1.3 The relationship between emotion comprehension and language

Despite the broad EC's developmental trajectory in typically-developing children, individual differences are extensive (Pons & Harris, 2019). One key factor related to and influential on EC individual differences throughout childhood is language. Multiple language components are linked to emotion comprehension.

Pons et al. (2003) studied 4- to 11-years-olds and found a high correlation between EC (Test of Emotion Comprehension performance) and grammar skills, even when controlling for age. Language ability explained between 27% and 28% of EC's variance which was even higher, though not statistically significantly so, than the age-explained variance (20% to 23%). Similarly, Cutting and Dunn (1999) studied 4-year-olds and found a relationship between EC (face recognition; emotion situational knowledge) and language skills (receptive vocabulary and narrative ability). They found these language skills accounted for more variance in EC than age and family background. These studies suggest language's importance in EC, although longitudinal or experimental studies would be needed for stronger causal claims.

Researchers have explained EC and language relationships in multiple ways. For example, they have argued that language facilitates cognitive representations of concepts, especially abstract ones like emotions. The more detailed these representations are, the better children can process emotions (Barrett, 2017; Holodynski et al., 2013). Another possible explanation is existence of a bi-directional relationship, in that children's language influences the amount of language complexity, including emotional language input, they get from parents/others (van Dijk et al., 2013). The correlation between language and EC may also result from EC tasks' language demands, as even tasks that do not require verbal input from children, require understanding verbal instructions and stories (Ogren & Johnson, 2020). Regardless of the reasons for the relationship, based on such correlations, many researchers use language ability as a covariate in EC studies (Ogren & Johnson, 2020). However, different language components are included in different studies.

Empirical evidence also suggests that emotional and mental state language (mentions of mental and psychological processes, e.g., 'think', 'believe', 'feel') are related to children's EC. For example, Streubel et al. (2020), studying 4- to 9-year-olds, found emotion-specific

vocabulary to predict multiple children's EC components (e.g., facial emotion recognition, emotion regulation) over and above general vocabulary. Similarly, for mental state language, Hughes and Dunn (1998) longitudinally followed children from 3- to 5-years-old and found that mental state talk frequency during dyadic play with friends was correlated with EC performance. Because of these correlations between EC and emotion/mental state language, such specific language components could also serve as potential covariates in EC studies.

2.1.4 Emotion Comprehension interventions' importance in early childhood

As we consider below, EC is linked to and predictive of various positive outcomes including: prosocial behaviours, interpersonal relationships, social competence, and academic success. Therefore, enhancing children's EC skills through intervention would be beneficial in multiple aspects of children's healthy development. Extensive research has found links between EC and prosocial behaviour with children of different ages, in both kindergarten and primary school (e.g., Denham, 1986; Denham, 2007; Farrant et al., 2012). However, to make stronger arguments that EC interventions would be helpful in fostering children's prosocial behaviours, more causal evidence is needed. Indeed, longitudinal studies, which provide more, though imperfect, causal evidence, have found EC to predict prosocial behaviour. Ensor and Hughes (2005) and Ensor et al. (2011), for example, found EC at 3-years-old to be longitudinally predictive of prosocial behaviour at 4-years-old.

Experimental studies also suggest that EC influences prosocial behaviour. Ornaghi et al. (2016) randomly assigned 26- to 36-months-olds to either a two-month intervention group involving emotion stories and conversations about emotions, or a control group that listened to the same stories but did not participate in conversations. Controlling for age and general language abilities, the researchers found the experimental group increased more in EC and emotion state talk than the control group. Furthermore, the experimental group showed more prosocial behaviour gains than the control group, though there were no significant differences between the groups in aggressive behaviours. Running mediation analyses, the researchers found that this increase in prosocial behaviours was mediated by gains in EC and emotion state talk. These studies suggest that EC plays a role in prosocial behaviours, and thus that EC may be a good potential target for interventions aiming to increase prosocial behaviours.

Research has also found EC to be linked to and predictive interpersonal relationships and social competence. Cassidy et al. (1992), for example, studied kindergarteners and first-graders, finding that children's EC (interview-assessed emotion recognition, emotion

causality understanding and reactions to emotions) was related to peer acceptance (classmates rating how much they would like to play with the child). Similarly, a meta-analysis by Trentacosta and Fine (2010) found that children who scored higher in emotion identification and emotion regulation showed higher capability in interpersonal interactions, dealt better with interpersonal conflict, and had higher peer acceptance.

While correlations indicate a relationship but its direction, longitudinal evidence has shown EC to predict social competence. A longitudinal study by Denham et al. (2003) found that emotional competence (emotional situation identification tasks performance) at 3- to 4-years-old predicted social competence (sociometric likability completed by classmates; teacher ratings) both concurrently and later, at age 5- to 6-years-old. Researchers suggest that a main reason for EC's importance for social competence is that it enables inferences of others' feelings and prediction of behaviours, thus facilitating appropriate social responses and relationship maintenance (Olson et al., 1988; Reschke et al., 2017). All this research suggests that EC is important for social competence and relationships, providing a rationale for enhancing social comprehension through interventions.

EC has also been found to correlate with and predict academic performance. A meta-analysis by Voltmer and von Salisch (2017), including 49 studies with 6,903 three- to 12-year-olds, found that emotion face recognition and external and internal causes of emotions knowledge, was correlated with academic performance. Longitudinal research, providing more causality information, has found EC to predict later academic success. Denham et al. (2012) studied US preschoolers longitudinally from the fall/early spring of preschool year (Time-1; 3- to 4-years-old) to the academic year's end (Time-2). They found that emotion knowledge (emotion labelling and emotion situation knowledge) at Time-1 predicted school adjustment and academic success at Time-2, even when controlling for gender, age and economic risk. Similarly, Cavadini et al. (2021) studied over 700 French pre-schoolers (3- to 6-years-old). They found through mediation analyses that academic performance increase (academic mathematics scores) was explained by increases in emotional knowledge (emotion recognition; understanding of 'external causes') and social behaviour. This resulted in children with higher EC having better mathematics scores and locomotor skills. The study is, however, cross-sectional, thus findings should be interpreted carefully.

Lecce (2017) followed longitudinally 5- to age 8-years-olds, assessed at three time points, and found that social understanding and EC at 5-years-old predicted social

competence (peer relationships; social skills) at 7-years-old, which in turn predicted school achievement at 8-years-old. While this study suggests that social competence mediates the link between EC and school achievement, other studies suggest a different pattern. Torres et al. (2015) found teacher- and peer-relationships' quality at preschool year's start predicted higher emotion knowledge (identifying emotions in photographs; story emotion recognition) during the preschool academic year and higher kindergarten achievement in emergent literacy and early numeracy skills. Furthermore, they found that increases in emotional knowledge mediated the link between and peer- and teacher-relationships and academic achievement. These findings are not necessarily contradicting as there may be bi-directionality between EC and social competence/interpersonal relationships. These findings also point to EC's importance in academic achievement, suggesting that effective EC interventions could positively influence academic achievement.

As reviewed in this section, EC is important for multiple important children's outcomes, which indicates the importance of finding effective EC interventions.

2.1.5 EC Interventions in Early Childhood

Given the benefits that early childhood EC interventions may have for children's outcomes (as considered in Section 2.1.4), training studies have increasingly targeted EC. The role of direct instruction, emotion stories and conversations in promoting children's EC has been recognised by training studies. The conversational approach, involving dialogues with peers and adults regarding emotion processes, has been found beneficial in promoting EC (Aznar & Tenenbaum, 2013; Grazzani et al., 2015). Such an approach aims to support children's emotion exploration, make their implicit emotion knowledge explicit, reflect on their own emotional experiences, and explore emotional differences between people based on different beliefs and desires.

Research suggests that EC can be trained through intervention. Tenenbaum et al. (2008), for example, focusing on hidden and ambivalent EC, developed an intervention for 5- to 8-year-old children. The children listened to vignettes and either answered unrelated questions (control group), gave self-explanations of the causes of story characters' hidden or ambivalent emotions (self-explanation condition), or listened to the experimenter giving such explanations (experimenter-explanation condition). It was found that the children in both training conditions improved more in their understanding of hidden and ambivalent emotions than those in the control condition.

A meta-analysis by Sprung et al. (2015), including 19 EC training studies from seven different countries, with 749 children (average age of 7-years-old) also supported EC interventions' effectiveness in promoting EC. This meta-analysis found EC interventions to be effective in increasing all external, mental and reflexive EC levels (EC levels drawn by Pons et al., 2004; see Section 2.1.2). This held regardless of the interventions'/intervention sessions' duration, study sample type (typical or atypical) and publication year. One third of this meat-analysis' studies, however, did not include a control group, which questions the findings' validity.

While most studies included in Sprung et al.'s (2015) meta-analysis targeted a few EC components, since then, multiple researchers have focused on training most or all emotion components of Pons et al.'s (2004) model. Ornaghi et al. (2015) studied Italian 4- to 5-year-olds who either received a six-week conversational approach intervention (story reading, followed by conversing about emotions' nature, causes and regulation), or were read the same stories, followed by free play (control group). The researchers found that the training group improved more in their EC (Test of Emotion Comprehension performance), than the control group. Similarly, Pons et al. (2019), attempting to find cost-effective dialogue-based interventions, studied 5-year-old preschoolers in Canada and France. Their eight- to nine-month intervention, delivered by non-trained teachers, comprised story-reading, emotion processes discussions (of all Pons et al. (2004) model' emotion components). Intervention group children improved more than control group children (who did not engage in discussions) in overall EC and specific EC levels (Test of Emotion Comprehension performance).

Other interventions have focused on shared book readings rather than conversations. LaForge et al. (2018) read training group preschoolers six short stories developed according to the first six components of Pons et al.'s (2004) model, during a three-week period. The control group was instead read ready-available storybooks. They found that only the experimental group's EC (Test of Emotion Comprehension performance) increased from pre-test to post-test. Michaud et al. (2021), also read story-books created according to Pons et al. (2004) model to the experimental group, and other stories to the control group. The researchers found that the children's improvement over-time in the overall Test of Emotion Comprehension, did not differ between the groups, and was no longer significant after controlling for receptive vocabulary. However, for the 'belief' and 'reminder' components, which are developing at preschool age, the experimental group performed significantly better

in post-test compared to pre-test, even after controlling for receptive vocabulary, whereas control group did not. Although book-reading interventions are easy to implement, results appear rather mixed regarding their effectiveness and future research should confirm its effectiveness.

In most available training studies children have been tested on the trained emotions. The above studies testing children using the Test of Emotion Comprehension, have trained children on all four emotions captured by this test (happiness, sadness, anger, fear). These designs do not allow to investigate whether training children on some emotions generalises to their comprehension of other emotions, and thus this remains unknown. Assessing this generalisability is important since interventions should promote children's comprehension of a multitude of emotions, rather than only the limited emotions' number an intervention can target.

Most recent studies have measured children's EC using the Test of Emotion Comprehension (Pons & Harris, 2000). While this test has the advantage of measuring all EC components of Pons et al.'s (2004) developmental model, it includes very few questions for 'recognition' and 'external causes', and only one question for each remaining component. This limits this test's usefulness when attempting to assess the depth of children's understanding of each component. This is because children may be able to understand some components for one emotion but not for others (e.g., a child may understand a reminder may trigger sadness, but not that it may trigger fear). Considering Nook et al.'s (2017) findings (see Section 2.1.2), this particularly may hold for the test's components with 'happiness' as the correct answer, because children may understand the valence of the answer, but not the emotion arousal. Thus, they may answer correctly differentiating between 'happiness' and three negative emotions, but could find distinguishing the correct answer between two negative valence components, which they might be less able to differentiate, more difficult.

Furthermore, even for the same component and same emotion, the child may understand one prompt but not another (e.g., understanding that a situation may cause sadness, but not understanding another situation may too). Therefore, if one aims training and assessing EC's depth, a test with more questions for each component may also be needed. This has not been the case in most recent studies. Thus, the extent to which these interventions have deepened each component's EC remains unknown/questionable.

2.1.6 Emotion Comprehension in the Albanian Context

Albania a small, post-communist, Eastern European country, is still characterised by a fragile democracy (Freedom House, 2020). Research on EC in the Albanian context is very limited. Farina and Belacchi (2014) conducted the only study considering Albanian kindergarteners' EC. They explored the links between EC and prosocial/hostile behaviours in 63 three- to 6-years-olds in Tirana, Albania. To measure EC, the researchers used the Italian standardised version (Albanese & Molina, 2008) of the Test of Emotion Comprehension. They found that children's overall EC scores increased with age, and the scores on the 'external' and 'mental' sub-domains, but not of the 'reflective' sub-domain, also increased with age. The youngest kindergarteners performed less well than the kindergarten's middle and old group, with these latter two performing similarly. Gender did not affect children's scores. While these findings align with research on other countries (e.g., Pons et al., 2004; Albanese & Molina, 2008), Farina and Belacchi (2014) do not report descriptive statistics of children's scores. Therefore, Albanian children's EC performance remains unknown.

Regarding EC's relationship with prosocial/hostile behaviours, Farina and Belacchi (2014) found that EC correlated to some prosocial role subscales, namely the 'mediator' and 'defender' role in bullying events. EC's 'external' sub-domain positively correlated with the macro-prosocial role, particularly with the 'defender' role. EC's 'mental' sub-domain was positively associated with the 'mediator' role. EC correlated negatively with the 'hostile' macro-role and 'victim' role, and the 'mental' sub-domain correlated negatively with the 'reinforcer' role. This aligns with literature from other countries reporting positive links between EC and prosocial behaviour, and negative links between EC and hostile behaviour (e.g., Belacchi & Farina, 2010). These associations between EC and prosocial/hostile behaviours suggest that effective EC interventions in Albania may be suitable in promoting prosocial and demoting hostile behaviour, although this should be treated cautiously given no causational evidence for Albania.

The Albanian kindergarten curriculum considers children's emotional development important, placing it under child's development standards, and its stimulation under teacher's standards. Further, it includes emotional development as a target in 'Albanian Language', 'Education for Society' and 'Arts' kindergarten subjects (Arsimi i Gjenerates Tjeter, 2022). To which extent kindergartens' activities and tools actually support the children's emotional development is, however, unknown.

Loka (2013) analysed first- to fourth-grade Albanian schools' textbooks considering the percentage of textbooks' elements that support eight different emotional competencies (e.g., mixed emotions awareness, emotion-triggering situations recognition, self-regulation ability). Further, she explored the degree to which human images correspond to the text, what was considered as promoting understanding possible discrepancy between emotional states and external expression (i.e., hidden emotions; however, this can be problematic if attempting to promote emotional expressions' recognition). She also examined the percentage of vocabulary relating to eight emotions (anger, love, sadness, surprise, fear, disgust, pleasure, shame). Loka (2013) found a lack of surprise, fear, disgust, shame and anger emotions in textbooks, and an absence of self-adjustment strategies' promotion. The results also indicated that other emotional competencies' mentions in textbooks are also low, and most pictures with people do not correspond to text emotions. While this suggests school textbooks' neglect of emotional development opportunities for children, we do not know whether this holds for kindergartens' tools. Furthermore, no interventions have been developed/tested for Albanian kindergarteners' EC.

2.2 Morphology

2.2.1 Albanian and Morphology

Some words have simple structural complexity and cannot be divided without losing meaning. More complex words can be divided into smaller parts (morphemes), as they contain one/more lexical morphemes/roots and affixes (i.e., prefixes and/or suffixes)(Fejzo et al., 2018). Creating new words through affixes changing the word's syntactic category or adding substantial new meaning, is referred to as derivational morphology (Lieber, 2017). Derivations are contrasted with inflections, whereby affixes only change the word's grammatical form (e.g., modifying number, case, tense, voice, aspect, person, gender) and not syntactic category. Other structurally complex words are formed by compounding (i.e., two/more lexical morphemes).

Morphological skills can be measured in terms of morphological knowledge (morphological elements' use and morphological rules' application in forming words; not necessarily consciously done) and MA (capacity to reflect on and manipulate morphemes, employing language's word formation rules; Kuo & Anderson, 2006). Although morphological knowledge and MA relate to somewhat different skills, with the main difference being the awareness/consciousness (or thereby lack of it) in following language

word formation rules, we use these terms synonymously. We make this decision because these terms are largely overlapping, making distinguish between tasks measuring MA and morphological knowledge difficult, especially given the large use of researcher-developed morphology tasks. Multiple other studies do also not distinguish between them (Carlisle & Goodwin, 2013).

Albanian is an Indo-European language with no clear close affinities to other language sub-groups (Hamp, 2019). Albanian language's orthography is extremely transparent (Hoxhallari, 2006). There are two Albanian dialects: Gheg (predominant in the North) and Tosk (predominant in the South; Lloshi, 1999; resembling the standard language more). Albanian is also very morphologically rich, with very high inflection, derivations and compounds levels (Hoxhallari, 2006). Nouns are inflected according to number, case and definiteness, verbs according to tenses, voices, and moods, and adjectives according to the noun they modify and contain a particle before them which aligns with the noun (Hoxhallari, 2006). Regarding derivations, words are created with prefixes and/or suffixes (Kuqi, 2015; Sherko & Shumeli, 2015). Multiple different affixes serving the same function (e.g., forming a profession word) need to be used for different words (e.g., '-ist' to indicate a football/volleyball player, but '-tar' to indicate a writer or dancer; Veselaj, 2016). Compounds are usually formed by combining two words. Sometimes, derivational affixes are added to compound words (e.g., prefixes to indicate opposites).

In the present study we only focus on derivation and compounding. This is because of Albanian language's high morphological complexity, with very high levels of inflection, and large levels of derivation and compounding (Hoxhallari, 2006). Therefore, children are frequently exposed to inflection. As we consider in Section 2.2.2, the higher the exposure to a morphological information is, the easier the children can understand/internalise the rules. Hence, we aim to train children's derivational and compounding MA, for which Albanian children have lower, despite still high, exposure and internalisation opportunities.

Studies with Albanian-speaking children suggest that children learn to read fluently and accurately more quickly and easily than children speaking some other languages, which has been attributed to Albanian's orthographic transparency (Hoxhallari et al., 2004). Regarding inflections, Cenko (2017) studied Albanian-speaking 2- to 3-year-olds and found them able to effectively use familiar and novel verbs in both transitive and intransitive constructions, which contrasts English-speaking children who find this more difficult.

However, no studies to our knowledge have investigated Albanian-speaking children's derivational and compound MA.

2.2.2 Developmental perspectives on derivational and compounding morphology in early childhood

Children acquire morphological knowledge as part of natural language learning (Carlise, 2010). To understand when morphological knowledge starts developing, research has investigated when children start using morphologically complex neologisms in their natural speech. Gathering evidence from multiple studies, Clark (1993) found that English-speaking children start producing compounds at approximately 18-months-old. Derivations are contrastingly observed in English-speaking children from 2-years-old, and comprise only a small proportion of children's new words. Clark (1993) found compounding to remain children's preference until 6-years-old, and derivations' use to increase gradually since when first occurring. If the derivation's affix has multiple meanings, children start using the most frequent first. For French-speaking children, contrastingly, Clark (1993) found that neologisms remain sparse in the first three years, but 4- to 5-years-old children produce derived neologisms using multiple suffixes, although compounds are used later and less frequently.

These differences in children's neologisms between English- and French-speaking children may reflect language differences, such as compounds being less and derivations more, frequent in French than English. This shows the importance of the spoken language's importance in children's morphological development. We find no studies considering Albanian children's derivational and/or compound neologisms' use. Regardless of language, Clark (1993) suggested that children use neologisms with no phonological changes to the word root when adding affixes are added earlier and more frequently, due to easier morphological division, and use easier to understand affixes earlier (e.g., the suffix '-er' in English to give the word an agentive meaning).

It has also been argued (Taft, 2003; Carlise, 2010; Bowers & Kirby, 2010) that the more words children know with an affix, the more likely they are to understand that affix's semantic meaning. However, an affix's semantic meaning may be processed later in childhood. Colé et al. (2004), for instance, showed French children of first, second and third school-grades pseudowords with attached suffixes, and two definitions for each pseudoword, one consistent and one inconsistent with the suffix meaning. The children needed to choose

the ‘correct’ pseudoword’s definition. Performance for all children was very low, suggesting that children may find attaching meanings to isolated affixes challenging.

Researchers have also considered children’s task-performance to capture their MA’s development. Such tasks include morphological judgement tasks, whereby children indicate whether two words containing affixes are of the same morphological form (e.g., ‘runner’ and ‘cooker’); sentence completion and analogy tasks whereby children extract morphologically complex words’ roots, or produce morphologically complex words from a root; and pseudo-words manipulation tasks (sentence completion or analogy pseudo-words tasks). Most studies investigating children’s task-performance, however, involve school-aged children. Besides school-aged children being older than our population of interest, schooling may affect development and therefore act as a confound, especially since learning to read influences MA (Manolitsis et al., 2017). Nonetheless, we consider this research briefly to explore children’s MA task-performance developmental trajectory.

Regarding relational judgement tasks, first-grade English-speaking children perform nearly at ceiling for the widely-used suffix ‘-er’ (de Villiers & de Villiers, 1973). Their performance is low for less common suffixes (Duncan et al., 2009). Performance is even lower for words where derivation requires changes to word’s root (Singson & Mann, 2000). All these studies found task-performance to improve with grade level. Studies in other languages (e.g., French), have found a similar developmental trajectory on MA task-performance, although performance on each specific age has been found to differ between languages, potentially due to exposure to affixes in each language (Duncan et al., 2009).

In root extraction tasks children’s performance improves with age. In derived word-production-sentence-completion-tasks, Carlisle and Nomanbhoy (1993), studied children in kindergarten and first school-grade. The derived target words either required phonological changes to the root or not. Kindergarteners found this task very difficult (23% average accurate performance for derived words with no phonological changes, and only 2% for derived words with phonological changes to roots). Performance was higher for first graders (41% and 11% respectively). Children find pseudo-word morphology tasks even more difficult, but older children perform better (Duncan et al., 2009). Tyler and Nagy (1989) also explored children’s understanding of derivational suffixes development, but again with school-aged children. They found that children recognise words’ roots and the fact that words share roots before fourth grade, followed by developing syntactic knowledge about suffixes,

and noticing the restricted use of suffixes for different syntactic purposes, which increases through to eighth grade.

While developmental trajectories on derivational morphology tasks seem similar across languages, ages of development seem to be dependent on the language, potentially due to differential exposure to morphologically complex words between languages (Fejzo, 2018). No studies with Albanian children, to our knowledge, have investigated their developmental trajectories in derivational/compound morphology tasks.

2.2.3 Why are MA interventions important in early childhood?

MA is linked to, and predictive of important children's outcomes, including reading ability (itself very important for academic success and later opportunities, Francis et al., 1996), vocabulary knowledge and spelling accuracy. MA interventions in early childhood, therefore, are promising to improve children's opportunities.

Many studies have found concurrent and longitudinal links between MA and reading ability, vocabulary knowledge and spelling accuracy in different orthographies (Tibi & Kirby, 2017; Schiff & Raveh, 2007, Saiegh-Haddad & Geva, 2008; Nagy et al., 2006; Lyster, 2021). Nunes and Hatano (2004), reviewing MA studies, argued that regardless of the orthographic differences MA is important for reading and spelling across languages.

However, in some orthographies some predictive links are more important than others. While in non-transparent orthographies MA has been found important for children's reading fluency, this does not necessarily apply to transparent orthographies. Manolitsis et al. (2017) longitudinally tracked Greek kindergarteners until second school-grade. They found inflectional and derivational MA in kindergarten, and inflectional, derivational and compounding MA in first school-grade explained 2% to 5% of unique variance in reading comprehension, controlling for multiple linguistic abilities and general cognitive ability. Contrastingly, after controlling for vocabulary and rapid automatised naming, no MA skill predicted word reading fluency. The researchers suggested that MA's lack of predictive power for reading fluency in transparent orthographies might result from children's reliance on letter-sound conversion, rather than orthographic knowledge, to read. They note that reading instruction might have an influence, in that learning to read through phonetics instruction might result in children's reliance on easy letter-sound conversion and thus fluent reading.

Albanian is a transparent orthography, which could mean that Albanian children might rely on phonetics to read, and thus MA may be important for their reading fluency. However, the Albanian educational reform asks teachers to teach reading through a whole-word-method (Hoxhallari, 2006) and even though some teachers decide combining this with phonetics instruction (Hoxhallari et al., 2004), the whole-word-method instruction might mean that MA still influences children's reading fluency. No studies have investigated this. However, as the evidence above suggests, even in transparent orthographies MA is important for multiple other outcomes.

The strongest causal evidence of MA's role in reading, spelling and vocabulary abilities comes from MA intervention studies. Lyster at al. (2016) trained 5- to 6-year-old Norwegian preschoolers on MA (inflections, derivations and compounding), phonological awareness, or did not train them (control condition). They measured reading ability at first school-grade's end and at sixth-grade. They found that at first grade, MA condition children scored higher than controls on word and text reading. However, there were no differences between the phonological and MA conditions. In sixth-grade the MA condition children scored higher than controls on reading ability, whereas the phonological awareness group did not differ from the controls and there were no significant differences between the morphological and phonological awareness groups. Causal conclusions should be made cautiously given that children in Lyster et al. (2016) control group children were not randomly assigned. However, this study importantly shows the long-term effects that MA interventions can have on children's reading skills. Various meta-analysis exploring MA interventions' effects have also shown that such interventions improve children's word reading, spelling, vocabulary and reading comprehension skills (Bowers et al., 2010; Goodwin & Aht, 2010, 2013).

Researchers have attempted understanding why MA predicts reading. It has been suggested to improve word identification automaticity, whereby correspondences between written and spoken language are at a morphemic level (Frost, 2012). Suggestions have also held that understanding affixes' meaning may lead to vocabulary development, since new words children learn are mostly morphologically complex, and vocabulary development improves reading abilities (Bowers & Kirby, 2010; Bowers et al., 2010; Anglin, 1993). Regardless, MA intervention are important as they seem to improve multiple child outcomes in a wide variety of languages.

2.2.4 The effectiveness of MA interventions in early childhood to train kindergarteners' MA

Most morphological intervention studies have been delivered to school-aged children (Goodwin & Ahn, 2013). There are, however, some interventions in different countries delivered to kindergartens. Most focus not only on improving MA, but also other related skills (see Section 2.1.5). Here, we focus only on whether MA interventions improve kindergarteners MA.

Casalis and Colé (2009) randomly assigned French kindergarteners to a MA intervention (focusing on derivations: suffixes concept, word root identification, word segmentation and production (i.e., fusion), and pseudo-word derivation activities, apart from one day on inflections), a phonological awareness intervention, or a control group. They found that the morphological intervention group's performance improved more in morphemic segmentation, derivation in sentence context, and inflectional morphology task compared to both the phonology and control group.

Similarly, Lyster (2002), found their MA training effective in improving Norwegian preschoolers' morphological skills. Five- to 6-year-olds were randomly assigned to a MA (inflections, compounds and derivations) intervention, a phonological awareness intervention, or a control group. The interventions were delivered by trained teachers, in 30-minute sessions, once a week for 17 weeks. The interventions included game-like oral activities, and there was some exposure to print to aid children's understanding. It was found that the MA intervention group improved more in the word compounds task and analysis of compound words task than the control group. However, surprisingly the phonological group outperformed the morphological group in the word compounds task. Moreover, highly educated mothers' children benefited most from the MA intervention.

Kindergartens' MA training has also been found effective in improving some MA for Chinese children. Chow et al. (2008) studied kindergartens from Hong Kong, randomly assigned to either a dialogic reading condition (parents received 12 books and instructions on the dialogic reading's prompt, evaluate, expand and repeat (PEER) technique); a dialogic reading and metalinguistic training condition (parents received the same books with same instructions, and also information about Chinese morphology, sound-meaning and homophone training); a typical reading condition (parents received the books but no instructions); or a control condition (parents received no books). The interventions involved

parents working with children for 20 minutes, twice a week for 12 weeks. The researchers found that the dialogic reading and metalinguistic training group improved more in morpheme identification task performance than the typical reading condition, although not significantly more than the control or the dialogic reading condition. No significant differences between the groups on a morphological construction task were found. Nonetheless, besides recording the reading-time, this study did not measure treatment fidelity, which might have been a confound.

Despite some mixed results, these studies suggest that MA interventions can improve children's MA in many languages. No MA intervention study for Albanian kindergarteners has been reported, and it is unknown whether/which MA intervention would be effective in this setting. The Albanian kindergarten curriculum displays interest in children's language development (Arsimi i Gjenerates Tjeter, 2022), thus finding interventions to support such development is important. Furthermore, to our knowledge, no studies have investigated whether training children in derivations transfers to their compounds MA, which is uniquely predictive of some children's outcomes. This is important to investigate to help designing more time-effective morphological interventions (focusing on less components while improving multiple morphological skills).

3 The present study

Given the lack of literature on Albanian children's EC, derivational and compound morphological skills, this study first aims to inform on these Albanian kindergarteners' skills. This would help Albanian literature and cross-cultural literature considering culture, context and/or language effects in such skills' development. Second, given the positive EC and MA impacts for multiple children's outcomes, and the Albanian curriculum's interest in children's emotional and language development, this study aims to investigate whether two contextualised interventions targeting EC and derivational morphology are effective in Albania. No interventions targeting such skills have been developed/tested in the Albanian context. Third, this study aims to consider whether there is far-transfer of training children in some basic emotions to other basic emotions, and of training in derivations to compounds. No studies to date, to our knowledge, have made such investigations (important when considering developing time-effective interventions). Our research questions are therefore as follows:

1. How do the Albanian children perform in EC and derivational and compounding morphology tasks?

2. a) Does an EC intervention focused solely on happiness and sadness improve overall EC for Albanian children as compared to a language intervention? If yes, which child EC components are improved?

2. b) Does an EC intervention focused solely on happiness and sadness improve EC of anger and fear for Albanian children as compared to a language intervention? If yes, which child EC components are improved?

3. Does a morphology intervention focusing solely on derivational morphology improve derivational and compound MA for Albanian children as compared to an EC intervention? If yes, which components MA components are improved?

4 Methods

4.1 Ethics

This study was approved by University of Oxford's Central University Research Ethics Committee (CUREC). The CUREC application, CUREC approval letter, information letter for the Municipality of Tirana and the Directorate of Nurseries and Kindergartens in Tirana, Albania, information letters and consent forms sent to parents, and oral information read to children prior to pre-test are attached in Appendix A.

We reflected on multiple ethical considerations throughout conducting the study. For example, we considered that children's time engaging in the kindergarten activities is valuable. Therefore, to ensure that children were not missing important activities in the kindergarten, the researcher scheduled the tests and the intervention together with the teachers. Furthermore, we ensured our interventions' targets (EC and MA) and the activities included align with the aims and activities of the Albanian kindergarten curriculum, and thus with locally-valued outcomes.

Since participant well-being was a priority, we reflected on the potential harms of our interventions. Our EC intervention involved discussions about emotions, which could bring children in touch with their positive or negative feelings. While this is necessary in a EC intervention, it may trigger emotions/ emotional memories to children. We carefully considered how to deal with such situations. For instance, we created a safe atmosphere

during discussions where children are respectful of others' answers. A safe sharing environment was created by children being encouraged to empathise with the others through being asked if they would feel the same in similar situations. The researcher would also note such similar feelings. We also ensured cooperation of the teacher, kindergarten psychologist and/or social worker in case of eventual triggering of negative emotions.

4.2 Design

This is a small-scale randomised controlled trial (RCT) whereby 4- to 5-year-old participants were randomly assigned to either an EC or morphology intervention group. While each group received an intervention, each of them acted as an active control group to the other group. The morphology group served as an active control group for the EC intervention and vice versa. The two interventions have the same dosage amount and very similar unit and lesson structure (see section 4.3). The children of both groups spent the same amount of time with the researcher in sub-groups with the same pupil-researcher proportion. The children were exposed to the same stories, and both interventions rely largely on language. These similarities between the interventions reduce the possibility of these factors confounding between-group comparisons, making these two intervention groups good controls for one another.

Both groups participated in pre-tests, intervention (either EC or morphology), and post-tests. Pre-tests (a total of three; approximately 42 minutes per child) and post-tests were the same including: Fikiria Hisia Test, Derivational and Compound Morphology test; Multilingual Assessment for Narratives Instrument (see Section 4.5). The researcher pre-tested and post-tested each child individually, in a kindergarten's available room. The pre-test and post-test periods took approximately eight school days each. The interventions started immediately following the pre-test period, and the post-tests started right after the intervention.

Both interventions comprised of nine 20-minutes lessons, each involving an introduction/do-now activity, children's book read-aloud, topic of the day discussions, and session wrap-up. One lesson per day was delivered. Thus, the intervention period lasted approximately two weeks. All lessons were researcher-delivered in seven/eight children sub-groups.

4.3 Intervention Development

Both EC and morphology interventions followed a distributed practice approach (content distributed between sessions, rather than few long sessions). Such an approach has been found effective in educational settings and helpful for memory(e.g., retention of learned content; Seabrook et al., 2005). Both interventions also placed large importance on content/tasks repetition, whose importance in the classroom to acquire new knowledge/skills has been supported by evidence considering multiple subjects in multiple countries (Kim et al., 2020; Brown, 2000; Ferguson et al., 2021; Saville, 2011)

4.3.1 The Emotion Comprehension Intervention

This intervention sits within shared book reading and conversational approaches. Both the PEER (prompt, evaluate, expand, repeat) and CROWD (completion, recall, open-ended, 'Wh' and distancing prompts) techniques from the shared book reading approach (Whitehurst, 1988) are used, as well as interactive conversations with metacognitive reflections aiming to make implicit knowledge explicit (conversational approach; Siegal, 1999; de Rosnay & Hughes, 2006). The intervention comprises nine 20-minute sessions in seven/eight children subgroups. The first three sessions (Unit 1) focus on happiness, the second triad (Unit 2) on sadness, and the last three (Unit 3) are revision sessions on both happiness and sadness. For all units, the first session focuses on emotion recognition (facial expression and emotion terms), the second on emotions' external causes, and the third on reminders. All sessions include four elements: an introduction/do-now activity, a 'read-aloud' activity, discussions, and a closure activity.

Most kindergarten EC interventions to date have targeted different/all EC components and not necessarily those suggested by Pons et al., (2004) to be developing at kindergarten-age. Contrastingly, our intervention focuses on deepening the three EC components suggested to be developing at the study's target age-band (4- to 5-year-olds): emotion recognition (facial expression and emotion terms), emotion causes (emotion-eliciting situations), and reminders (reminders of emotion-eliciting situations as emotion triggers). The intervention only focuses on two emotions: happiness and sadness. Research suggests that these two emotions are the most frequent in Non-Western children's books (e.g., Wege et al., 2014). It was of interest whether teaching children about some emotions would generalise to other emotions' comprehension.

All intervention sessions start either by a ‘do-now’ activity (to grab attention) coupled with a topic of the day introduction, or a lesson’s short recap and topic introduction. The do-now activities are wide-ranging (e.g., drawing a happy or a sad face, smiling widely or frowning and looking at each-others' faces change, saying the name of something that you like and imagining someone bought it for you). All do-now activities were related to the day’s topic and were used throughout the lesson as examples. The topic of the day’s introduction was brief and concise, drawing children’s attention to later discussions.

During the ‘read-aloud’ activity the researcher advises children to try focusing on a specific thing (e.g., look at characters’ faces and synonyms of the target emotion words coming up in the story). For Unit 1’s first two sessions, an age-appropriate Albanian author’s children’s book with happiness as prevalent emotion was selected. For the third session, a continuation of the story read in the first two sessions written by the researcher was read, focusing conversations on happiness reminders. For Unit 2, the book for the first two sessions was also age-appropriate and written by an Albanian author, but focused on sadness. For session three of Unit2, the story read was a continuation of the first two sessions’ story and prompted discussions of sadness reminders. For Unit 3, all three sessions used an age-appropriate book written by an Albanian author focused on both happiness and sadness.

Every intervention session also includes a conversation on the day’s topic as applied to the story characters and everyday life. The discussion’s link with everyday life is prompted either by revisiting the ‘do-now’ activity, or by asking children to think of everyday situations wherein story characters’ emotions are experienced. These discussions follow the PEER, CROWD (Whitehurst, 1988) and conversationalist approaches (Siegal, 1999; de Rosnay & Hughes, 2006).

The closure activity typically involves lesson’s recap including researcher’s explanation, questions asked to children, and/or final thoughts. One lesson plan is attached to Appendix B. Figure 1displays a simple lessons’ structure.

4.3.2 The Derivational Morphology Intervention

This intervention is structured as nine 20-minute researcher-delivered sessions in seven/eight children sub-groups. The first lesson focuses on suffixes to derive professions, the second on suffixes to derive adjectives from nouns, and the third on prefixes to derive words that indicate over/under (Unit 1). Unit 2 includes three lessons on prefixes to create

opposites[1]. In Albanian multiple prefixes are be used to derive opposites (‘pa’, ‘mos’, ‘sh’, ‘zh’, ‘ç’). The first of these lessons focuses on the prefix ‘pa’, the second on ‘mos,’ and the third on ‘sh’, ‘zh’, ‘ç’. The last three lessons (Unit 3) comprise revision lessons of first suffixes to generate professions, followed by prefixes to derive under/over words and nouns into adjectives, and finally opposites’ prefixes. This division in three units, with the last three lessons being revision aligns with EC intervention’s structure.

The morphology intervention was inspired by research on MA for Norwegian kindergarteners by Lyester (2002) and Lyster et al. (2016). However, as we explain in the intervention’s structure below, we did not use compounds of inflections activities, but focused solely on derivations. This decision aligns with the present study’s aim to investigate whether a derivational morphology intervention generalises to child compound words understanding.

Although inspired by Lyster (2002), intervention activities were changed according to Albanian morphology. This intervention also differs from Lyster et al. (2016) in that it adopts a shared book reading approach where words used as primary examples in discussions about morphology and play-like activities arise from the content of the stories read. Words are also discussed in terms of story content. This morphology intervention arguably adopts elements of the conversationalist approach too as its aim is to provide children with both new morphological and metacognitive strategies to turn implicit knowledge explicit. This element does not differ from Lyster et al. (2016), however, as their intervention also aimed to increase MA.

The morphology intervention lessons’ structure resembles the EC intervention’s one. All sessions begin with a do-now activity (e.g., asking children what they want to become when they are older) and the day’s topic introduction, or previous lesson’s recap and the day’s introduction. Next, there is a children’s book read-aloud, during which children are advised to focus on something related to the day’s topic (e.g., ‘Try to find a word that starts/ends with X). The same stories as in the EC intervention are used. The stories contained words with the needed morphological structure and/or such words could be generated easily from the story content. This is followed by explanations, conversations, and/or play-like

[1] Piloting at pre-test indicated children struggled to understand the notion of the ‘opposite.’ As such, explaining this concept was also touched upon in the intervention to facilitate understanding of the role of these prefixes.

morphology games, which included words from the stories, do-now activities, and other age-appropriate examples. Similarly, to Lyster (2002), even though not all children knew how to read, they were exposed to some writing in order to have a visual representation of a root to which an affix is added, or a word to which affixes is removed. Lastly, closure activities usually included a lesson recap either structured as explanation, questions asked to children, and/or final thoughts. An example lesson plan is attached to Appendix B. Figure 1 displays lessons' structure.

Figure 1

The Timeline and Structure of Pre-Tests, Interventions, and Post-Tests

<table>
<tr><td>Day 1 - 8</td><td colspan="6">Day 9 - 17</td><td>Day 18 - 26</td></tr>
<tr><td>Pre-Tests
Individually Administered
Approximately 42-minutes in total
(+5 minutes optional break)</td><td colspan="6">Intervention Period
9 x 20 minutes Sessions
Groups of 7 - 8 Children</td><td>Post-Tests
Individually Administered
Approximately 42-minutes in total
(+5 minutes optional break)</td></tr>
<tr><td>Both Groups</td><td colspan="3">Emotion Comprehension
Interention</td><td colspan="3">Morpholgy Intervention</td><td>Both Groups</td></tr>
<tr><td rowspan="2">Easy Oral Infromation about the Study;
Agreement to Participate</td><td>Day 9 - 11 (Unit 1)
Happiness</td><td>Day 12 - 14 (Unit 2)
Sadness</td><td>Day 15 - 17 (Unit 3)
Revision</td><td>Day 9 - 11 (Unit 1)
Prefixes & Suffixes</td><td>Day 12 - 14 (Unit 2)
Opposites (Prefixes)</td><td>Day 15 - 17 (Unit 3)
Revision</td><td rowspan="6"></td></tr>
<tr><td>9. Recognition
10. Causes
11. Reminders</td><td>12. Recognition
13. Causes
14. Reminders</td><td>15. Recognition
16. Causes
17. Reminders</td><td>9. Professions
10. Under/Over
11. Nouns into Adjectives</td><td>12. 'Pa'
13. 'Mos'
14. 'Sh', 'Zh', 'Ç'</td><td>15. Professions
16. Over/Under + Adjectives
17. Opposites</td></tr>
<tr><td>1. Fikiria Hisia Test (Extended and Adapted)</td><td colspan="3">Structure</td><td colspan="3">Structure</td><td>1. Fikiria Hisia Test (Extended and Adapted)</td></tr>
<tr><td>Optional 5-Minute Break</td><td colspan="3">Introduction + Do-Now
Activity/Recap</td><td colspan="3">Introduction + Do-Now
Activity/Recap</td><td>Optional 5-Minute Break</td></tr>
<tr><td>2. Derivational Morphology Test</td><td colspan="3">Story Read-Aloud (Vocabulary +
Focus Suggestion)</td><td colspan="3">Story Read-Aloud (Vocabulary +
Focus Suggestion)</td><td>2. Derivational Morphology Test</td></tr>
<tr><td>3. Multilingual Assessment Instrument for Narratives</td><td colspan="3">Activities - Discussion +
Explanations
(a) Book Characters
(b) Daily Life</td><td colspan="3">Activities - Language
Games/Discussion + Explanations
(a) Words from Story/Generated
by story content
(b) Other words from
children/researcher/do-now
activity</td><td>3. Multilingual Assessment Instrument for Narratives</td></tr>
<tr><td>Sticker</td><td colspan="3">Session Closure</td><td colspan="3">Session Closure</td><td>Sticker</td></tr>
</table>

Note: The numbers before the components of each unit of the intervention indicate the working day of data-collection that component was delivered.

4.4 Participants

Participants were 53 typically developing 4- to 5-year-old children (M_{age}= 61.58 months, *SD* = 4.41) from two state kindergartens in high socio-economic areas of Tirana, Albania (Dumani et al., 2018). The kindergartens were selected based on discussions with Tirana's Directorate of Nurseries and Kindergartens and the Municipality of Tirana regarding the facilities available within the kindergartens to conduct the study. Sixty-four parents of the two kindergartens' second year-group (middle group, children aged 4- to 5- years-old) were asked to consent for their children's participation in this study. Fifty-nine parents consented. Two children were dropped from the study as they did not meet the age requirements. One child did not participate in any study's part because they did not come into the kindergarten at any day while the study was ongoing. Of the 56 remaining children, three children (two from the EC group and one from the morphology group, all females) participated only in pre-test and interventions session, but not in post-test. Attrition in all cases was due to family holidays during post-test. Thus, overall 53 children (33 males, 20 females) participated in the study's stages.

Children were randomly assigned (random assignment with replacement) to either the EC or morphology intervention using dCode (2022) website. The EC group comprised 26 participants (18 males, 8 females) who participated in all study's stages. The morphology group included 27 participants (15 males, 12 females) who participated in all study's stages. Participant's sex did not differ significantly between the groups, $x^2(1, N = 53) = 1.05$, $p = .31$, and neither did their age in months (EC group: $M = 61.42$, $SD = 4.21$; the morphology group: $M = 61.74$, $SD = 4.68$; $t(51) = 0.26$, $p = .67$). Table 1 displays this information.

Due to sickness or holidays, some children were absent for some of the intervention sessions. The number of absences was not significantly different between the EC group (*Mdn* = 0.50, Mean Rank = 25.27) and the morphology group (*Mdn* = 1.00, Mean Rank = 28.67), $U = 306$, $z = -0.85$, $p = 0.39$ (Table 1).

Table 1

Children's Sex, Age and Absences by Intervention Group

	Morphology Group (N = 27)			Emotion Comprehension Group (N = 26)					
							Chi-Square		
	N (%)			N (%)			χ^2	df	p
Sex							1.05	1	.31
Male	15 (55.56%)			18 (69.23%)					
Female	12 (44.44%)			8 (30.77%)					
							Independent Samples t-Test		
	M	SD		M	SD		t	df	p
Age (months)	61.74	4.68		61.42	4.21		0.26	51	.67
							Mann-Whitney U-test		
	Mdn	Mean Rank	IQR	Mdn	Mean Rank	IQR	U	z	p
Absences (no. of sessions)	1.00	28.67	2.00	0.50	25.27	2.00	306	-0.85	.39

4.5 Measures

This study focused on the impact of interventions on EC and MA. We were also interested in children's narrative skills and internal state term references as theoretically-driven potential covariates as suggested by the literature. EC was operationalized as scores on the Fikiria Hisia Test; MA as scores on the Derivational and Compound Morphology Test; and Narrative Skills and Internal State Term references as scores on each of these on the Multilingual Assessment for Narratives Instrument.

4.5.1 Fikiria Hisia Test (FHT), adapted and extended

The FHT was developed as a culturally sensitive test of EC to investigate EC of Zanzibari preschoolers in Tanzania by Simmons & Nag (2021) who piloted it with 43 typically-developing Zanzibari 5- to 6-years-olds. Its performance was significantly related with The International Development and Early Learning Assessment (IDELA, Pisani et al., 2015; Save the Children, 2022) socio-emotional items. An adapted and extended version of the FHT was used as the present study's EC measure. This task took approximately 20 minutes to administer.

The FHT comprises six tasks (three verbal and three non-verbal) to measure three EC components (facial expression matching, emotion labels knowledge, and emotions causes understanding) for four basic emotions: happy, sad, scared and angry (Ekman, 1972; Izard, 1977).

The Facial Expression Matching task (Task 1) is a non-verbal task whereby children are shown a 12-card sequence. On each card there is one character demonstrating a target facial expression and another character demonstrating three facial expressions, one which matches the target and two distractors. Children need to point at the target-matching one.

While being shown these cards for Task 1, children are asked to describe each target face's feeling. These verbal responses comprise Task 2, which measures Expressive Knowledge of Emotion Labels.

Task 3 is a non-verbal task that measures Receptive Knowledge of Emotion Labels. Children are shown 12-card sequence, each displaying one character demonstrating three facial expressions. The children need to point to the facial expression that matches the emotion label the researcher says. While being shown these cards, the children are asked: 'What makes you feel (X)?'; 'When do you feel (X)?' OR 'Did you feel (X) today?' (where X is the emotion label said by the researcher in Task 3). These verbal responses comprise Task 4, that measures the Expressive Understanding of Emotion Situations, that is, children's comprehension and expression of basic emotions causes.

Task 5 measures Receptive Interpretation of Emotion-Eliciting Situations through a non-verbal task where the children are shown a 12-card sequence with a character demonstrating three facial expressions. For each card the researcher narrates 12 emotion-triggering situations (e.g., 'Huruma's dad has given him a present'). The children need to point to the facial expression that best matches the characters' emotion elicited by the situation narrated.

After answering each question for Task 5, children are asked one of three follow-up questions which concerned the character's emotion valence ('Does he/she feel good or bad here?'), the emotion label ('What is the name of this feeling?'), or their own experiences of the target emotion ('Are there times when you feel X, like this?'). These verbal responses make up Task 6 measuring the Expressive Interpretations of Emotion-Eliciting Situations.

Each basic emotion is the target answer for three of the 12 questions in each task.

Extension. We extended the test developing two further tasks to include children's understanding of 'reminders'.

Task 7 (Receptive Understanding of Reminders as Emotion-Elicitors) includes two cards, each containing a character displaying three facial expressions. For each card a situation whereby characters' emotions would be elicited by reminders (e.g., 'One morning, Amelia was bitten by a dog. Later she sees a different dog. How does she feel?') is narrated. The children need to point at the facial expression that best matches the characters' reminder-elicited emotion. For Task 8 (Expressive Interpretation of Reminders as Emotion-Elicitors),

for each of the two cards shown in Task 7, the children were asked ‘What is the name of that feeling?’. For these tasks, one target emotion is fear and the other sadness. We did not include happiness and anger since any reminder of a happy situation can create nostalgia which might be interpreted more as a negative than positive emotion, and anger might not be last-longing enough to be re-elicited by a reminder of an anger-eliciting situation.

While we believe that having more scenarios would make this task more valid and reliable given it would be less influenced by the understanding of a specific scenario, we consider this part of the study exploratory.

Adaptation. We adapted the FHT for Albania, through changes of the character faces, facial emotion expressions, and names to match the local culture. Further, it included small changes of three emotion-eliciting situations for Task 5 to match the local culture (e.g., because approximately 58% of the Albanian population is Muslim (World Population Review, 2022) and not all children celebrate Eid, and children get more toys than clothes for celebrations, changed the scenario ‘Asma’s father bought her new clothes for Eid.’ to ‘Era’s father bought her new toys for Children’s Day.’.

The adaptation process included communications with local teachers and the test developers, and piloting with six 7-year-olds from Tirana, Albania, who matched our sample’s socio-economic status. The pilot sample was intentionally chosen to be older than the study sample because based on prior literature showing EC’s development increase with age, we expected 7-year-olds to be largely competent in this task. This competence was important to enable us to consider whether the task made sense to local children who would not face difficulties due to some EC components not having developed yet. The pilot’s results ensured us of the local appropriateness of the adapted FHT.

Scoring. Children scored one point for each correct answer and zero points for each incorrect answer in each task.

Rationale for selecting this test. Since this test includes four emotions (happy, sad, scared, angry) for each task and our intervention only trains two emotions (happy, sad) it allowed us to investigate far-transfer of training happiness and sadness, to the development of anger and fear EC. Most other EC tests have been developed within a Western framework, whereas this test provides a more culturally-sensitive measure. Also, this test has been specifically designed for kindergarteners, and measures every component by multiple emotions and situations, rather than considering only one emotion and situation for each

component. The FHT, thus, enables considering depth of understanding for each component developing at this age-range, making it appropriate for our study's purposes.

4.5.2 Derivational and Compound Morphology Test (DCMT)

Test Development. The DCMT was developed for this study to assess children's derivational and compound MA. The test is oral and includes three tasks and lasts approximately 10 minutes. No derivational/compound morphology test for Albanian kindergarteners was found in the literature. We consulted with cross-cultural literature (Manolitsis et al., 2017; Carlisle, 1995, 1996; Singson et al., 2000; Green, 2004), the Albanian morphology literature, including Albanian Language and Literature books used in Albanian schools and academic writings (Agalliu et al., 2002; Veselaj, 2016; Sherko & Shumeli, 2015; Kuqi, 2015), and Albanian kindergarten/primary-school teachers. We piloted this test with eight 4- to-6-year-olds. ***The Tasks.*** Task 1, Suffixes and Prefixes (General), includes 10 questions measuring child ability to: 1) add suffixes (-ist, -tor, -tar, -atar) to derive professions, and to 2) add prefixes to derive words indicating whether something is above/over (mbi) or below/under (nën) from some lexical morphemes. An example question is 'When Mateo grows up, he wants to play football for a living. What does Mateo want to become when he grows up?'. The correct answer to this question is 'futbollist', which would be derived from adding the suffix '-ist' to the root 'futboll' [football].

Task 2, Prefixes for Opposites, includes 13 questions measuring child ability to add prefixes ('pa', 'mos', 'sh', 'zh', 'ç') to derive words with the opposite meaning of lexical morphemes. The questions are asked in the form: 'If you are not X, what/how are you?' or 'If you do not have X, what do you have?' (e.g., If you are not 'i lodhur' (tired) how are you? 'i *pa*lodhur' [Not tired]).[2]

For both Task 1 and Task 2, some test words were taught, and others were similar, but not the same, to those taught in the intervention (done to investigate whether children generalise the rules they learn to other words).

[2] There were strong indications from piloting that children might not understand the 'opposite' concept. Piloting indicated that this way of rephrasing the question was more easily understood by children, thus potentially increasing task validity.

Task 3, Compound Words, includes 10 compound words told to children. Children are asked to define/create a meaningful sentence with the word. Six words were ‘simpler’ structure compound words (two morphemes’ combination), and four words are of a 'more complex’ structure (two morphemes and an opposites’ prefix).[3]

Scoring. For all tasks, zero points were awarded for wrong answers, and one point for correct answers.

4.5.3 Multilingual Assessment Instrument for Narratives (MAIN)

The MAIN (Gagarina et al., 2012), translated and adapted into Albanian by Kapia (in Gagarina et al., 2019) was used to measure children’s narrative skills. This instrument has been developed to measure narrative skills in 3- to 10-year-olds, and has been translated into multiple languages. The Albanian version is based on this tests' 2019 English version of this test, which was revised based on data from 700 children in Germany, Russia and Sweden between 2013-2019 (Gagarina et al., 2019). This tool has been used with Albanian monolingual and Albanian-Greek bilingual children (Kapia, 2013; Andreou et al., 2022; Tsimpli et al., 2016). Although this test has not been norm-referenced, it offers standardised procedures.

Children are provided with six-pictures sequences. There are four story sets that can be used, ‘Cat’, ‘Dog’, ‘Baby Goats’ and ‘Baby Birds’. The ‘Cat’ and ‘Dog’ stories, as well as ‘Baby Goats’ and ‘Baby Birds’, parallel each other in macrostructure and microstructure. We used both modes of testing narrative skills this test provides, namely ‘retelling’ a story read by the researcher and ‘telling’ (story generation) a story from pictures seen. We benefited from story parallelism to reduce children’s training effects by testing children with either the ‘Cat’ or the ‘Dog’ story for ‘retelling’, and either the ‘Baby Birds’ or ‘Baby Goats’ story for ‘telling’ in pre-test, and testing them with the parallel stories y for each mode in post-test. This test took approximately 12 minutes to administer.

Scoring. Children’s narratives are transcribed and scored. For story structure, a maximum 17 points for each story is awarded (two for mentions of setting and others for presence of initiating events, goals, attempts, outcomes, and reactions for each of the three episodes each story contains). Since the children complete two stories, a maximum of 34

[3] The morphology intervention did not focus on compound words. This task, thus, is used to investigate whether there is far-transfer of a derivational morphology intervention to understanding compound words.

points overall is awarded for story structure. For Internal State Terms (perceptual and physiological state terms, emotion terms, and linguistic and linguistic verbs), we calculated the total number of Internal State Terms mentioned overall.

4.6 Procedure

Figure 1 displays the interventions' structure.

Pre-test. The pre-tests began in May 2022. Parental consent for their child's participation was gained. The researcher collected children one by one from their classroom to a free kindergarten room. The researcher and child sat on opposite table sides. Before administering the first assessment, the researcher briefly described the study to the children and made them aware they could withdraw at any time. The researcher also told the children that the answers would be audio-recorded, showed them the device, and reassured them that only the research team would hear their answers. The researcher then asked them if they wished to participate. If they agreed, the assessments were administered for all children in the same order (FHT, DCMT, MAIN).

All children's responses were audio-recoded by an encrypted, password-protected device. Before starting testing, the researcher said the child's participant number aloud and ensured no name's mention at any testing point. The pre-test lasted approximately 42 minutes in total for each child. The children could have a 5-minute break after the first test if they wished. After pre-test completion, each child was given a sticker to thank them for their time and returned to class. The researcher tested around seven/eight children each day. Immediately after finishing pre-tests with all the children, which took approximately eight school days, the interventions started.

Interventions. Both interventions (approximately two weeks overall) were organised as nine 20-minute researcher-delivered sessions delivered in seven/eight children subgroups. For both interventions, the researcher went into the classroom and said the names of the children that were part of the subgroup that was going to be picked-up for the session. The children were picked-up in groups from their classroom by the researcher, walking together to a free, quiet kindergarten classroom. Children sat in chairs around a big table, forming a semi-circle around the researcher. Once in the free classroom, the researcher noted down the absences, made sure the children were ready to start, and then started the lesson. The researcher ensured all children were engaged and involved in the lesson. The children were let to use the toilet facilities during the lesson following kindergarten rules. When each

session ended, the researcher returned the children to their classroom, and picked-up the subsequent group.

If a child missed a lesson, this lesson was not repeated for them. The day of the researcher was organised in such a way to be in one kindergarten in the morning, and in the other kindergarten in late-morning/afternoon. Since the intervention groups were not divided according to the kindergartens, the researcher would alternate between delivering emotion and morphology interventions throughout the day. The children were always part of the same groups.

Post-test. The exact same procedures as at pre-test were followed, except giving children information about the study.

5 Results

5.1 Analytic Plan

All statistical analyses were done using SPSS Version 27.

Research Question 1. To answer the first research question concerned with children's performance regarding EC (operationalized as FHT scores) and morphology (operationalized as DCMT scores), we explore the means and standard deviations at pre-test for both tasks' components. For the two tasks of the FHT that can take less than five values, we explore medians and Inter-Quartile Ranges (IQR) instead. Pre-test performance is selected since this displays children's performance at baseline.

***Research Question 2a.i)*.** To address the second research question concerned with the effectiveness of the EC intervention, we investigated whether children's change in scores in the FHT (composite of all FHT tasks) from pre-test to post-test were different between the EC and morphology groups. Here, children in the morphology group served as an active control to children in the EC intervention group. The FHT pre-test scores between the EC (M = 52.19; SD = 5.99) and the morphology group (M = 53.74; SD = 10.40) were not significantly different, $t(51) = 0.66$, $p = .51$ (successful randomisation). Therefore, we did not include pre-test scores as a covariate.

Before proceeding with the analysis, study data were checked to confirm ANOVA assumptions were met. We investigated independence of observations (Durbin-Waston coefficient), normal distribution of the dependent variable within each group (for skewness

and kurtosis values, we consider approximately normally distributed a skew smaller than |2.0| and kurtosis smaller than |9.0|; Posten, 1982), and homogeneity of variances. All these ANOVA assumptions were met, and thus we proceeded with one-way ANOVA.

We then also considered which of the theoretically-driven covariates can act as a covariate for this analysis, by testing the correlations between the theoretically-driven covariates and the dependent variable (Appendix C). The only significant correlation was found between the dependent variable and the pre-test MAIN story structure scores, $r(51) = -0.276$, $p = .046$. The pre-test MAIN story structure scores were approximately normally distributed (skewness = -0.183, kurtosis = -0.113), and had an approximately linear relationship with the dependent variable. We thus only include this as a covariate and run a one-way ANCOVA model.

Research Question 2a.ii) Because the EC group improved significantly more in overall FHT performance from pre-test to post-test than the morphology group (See Section0), we consider for which FHT task this is the case. To do this we compared the change in scores for each FHT task from pre-test to post-test between the EC and morphology groups. We do not include pre-test scores as covariates as they were not different between the two groups for any FHT task (i.e., successful randomisation). We only included the MAIN story structure at pre-test as a covariate for Task 3, as only changes in scores between pre-test and post-test for this task were significantly correlated to pre-test MAIN story structure, $r(51) = -0.274$, $p = .047$, and this relationship was approximately linear. We decided not to test for the differences between the groups on FHT Task 1 (Emotion Matching) given predominant ceiling at pre-test for both groups ($M = 11.53$, $SD = 1.48$), and all but one child achieved ceiling at post-test.

Before proceeding with the analyses, we checked whether ANOVA assumptions were met. The approximate normal distribution of the dependent variable within each group was met for all Tasks apart from Task 4, whereby the EC group dependent variable was slightly skewed (Skewness = 2.24, Kurtosis = 6.47), Task 7 (Receptive Understanding of Reminders as Emotion-Elicitors) and Task 8 (Expressive Interpretation of Reminders as Emotion-Elicitors). For Task 4, because there is only a slight skew and one-way ANOVA tolerates some data non-normality (Laerd Statistics, 2018), we decide to continue with one-way ANOVA. However, for Tasks 7 and 8, given the skewness and kurtosis, and that the values of change in scores from pre-test to post-test only ranged from -1 to 2 (only whole numbers), we

decided to use a non-parametric test, namely Kruskal-Wallis test (Armstrong & Hilton, 2010).

We also checked for homogeneity of variances using Levene's Test. This ANOVA assumption was violated for Task 2, $F(1, 51) = 5.73$, $p = .02$, Task 3, $F(1, 51) = 8.00$, $p = .01$, and Task 4, $F(1, 51) = 7.15$, $p = .01$. We proceed with Welch's ANOVAs for these tasks a solution to this violation (Garson, 2012).

Since multiple comparisons are done for this research question, we use Bonferroni corrections (Bonferroni, 1936; Dunn 1961) to reduce Type-I error probability.

Research question 2b.i). To answer this question considering far-transfer from teaching children about happiness and sadness, to their anger and fear comprehension, we test whether the change in scores in composite FHT *only for* the anger and fear items, from pre-test to post-test for the EC group and the control group is significantly different. We found that the pre-test scores in FHT between the EC group ($M = 24.27$; $SD = 4.19$) and the morphology group ($M = 23.74$; $SD = 5.98$) are not significantly different, $t(51) = -0.37$, $p = .71$ (successful randomisation). Therefore, we did not include pre-test scores as covariates.

Before proceeding with ANOVA to compare the change in FHT anger and fear items from pre-test to post-test (dependent variable) between the two groups (independent variable), we investigated independence of observations (Durbin-Watson coefficient), normal distribution of the dependent variable within each group, and homogeneity of variances. All ANOVA assumptions, apart from the homogeneity of variances were met. Thus, we proceed with Welch's ANOVA as a solution to the non-homogeneity of variances.

To decide on whether to include covariates, we investigated the correlations between the potential covariate (MAIN story structure at pre-test, that was significantly correlated with the composite FHT scores for all items), and the dependent variable (change in FHT anger and fear composite scores between pre-test and post-test). We did not find any significant correlation and thus do not include any covariates (Appendix C).

Research Question 2b.ii) Because we found far-transfer for the FHT anger and fear overall (See Section 0), we considered for which FHT task there is far-transfer evidence. We compared the change in scores for each FHT anger and fear items from pre-test to post-test between the EC and morphology groups. Pre-test scores on anger and fear items were not different between the two groups for FHT task (successful randomisation) and we did not

include these as covariates. We decided not to test for the differences between the groups on FHT Task 1 (Emotion Matching) because of predominant ceiling effects on this task at pre-test for both groups (M = 5.72, SD = 0.99), and only one child not achieving ceiling at post-test.

Before proceeding with the analyses, we checked whether ANOVA assumptions were met. The approximate normal distribution of the dependent variable within each group was met for all Tasks apart from Task 4, whereby the morphology group dependent variable was slightly skewed and kurtotic (Skewness = 2.46, Kurtosis = 9.60) and Task 8 (Expressive Interpretation of Reminders as Emotion-Elicitors). Because for Task 4 there was only a slight skew and kurtosis for the morphology group dependent variable and ANOVA tolerates some extent of data non-normality (Laerd Statistics, 2018), we decided to continue with ANOVA for this task. For both Task 7 and 8 given that the values of change in scores between pre-test and post-test only ranged from -1 to 1 (whole number values only) we decided to use Kruskal-Wallis test.

We also investigated variances' homogeneity using Levene's Test. This ANOVA assumption was violated for Task 3, $F(1, 51) = 13.85$, $p < .001$; Task 4, $F(1, 51) = 15.92$, $p < .001$; and Task 6, $F(1, 51) = 9.78$, $p < .005$. We proceeded with Welch's ANOVA as a solution (Garson, 2012). For the other tasks which meet this assumption we proceeded with one-way ANOVA. We used Bonferroni corrections given multiple analysis.

Research question 3i) This research question concerns the effectiveness of the derivational morphology intervention to improve children's morphology skills (derivational and compound). We compared whether the change in scores in the Derivational and Compound Morphology test (DCMT; composite) between pre-test and post-test for the morphology group and the EC group is significantly different. The pre-test scores in DCMT between the morphology (M = 11.22; SD = 4.99) and the EC group (M = 11.50; SD = 4.10) were not significantly different, $t(51) = -0.22$, $p = .86$ (successful randomisation), thus we did not include them as a covariate.

Before proceeding with ANOVA to conduct the analysis, we investigated independence of observations (Durbin-Watson coefficient), normal distribution of the dependent variable within each group, and homogeneity of variances. All of these ANOVA assumption, apart from homogeneity of variances, were met. We proceeded with Welch's ANOVA as a solution to the non-homogeneity of variances.

Considering whether we need to control for any theoretically derived covariates, we investigated the correlations between the potential covariates and the dependent variable (change in DCMT composite scores between pre-test and post-test). We found no significant correlations (Appendix C), and thus did not include covariates.

Research question 3ii). Because we achieved a significant result for Research Question 4a, we considered for which DCMT task(s) the intervention is effective. We tested differences between the groups in changes in scores between pre-test and post-test for Task 1 (Prefixes and Suffixes, General), and Task 2 (Prefixes for Opposites), and Task 3 (Compound words). Pre-test scores were not included as covariates for any of the tasks as there were no significant differences between the EC and morphology groups at pre-test (successful randomisation).

Before proceeding with the analyses, we investigated normal distribution of the dependent variable within each group and homogeneity of variances. Apart from a slight skewness for the change in Task 1 scores from pre-test to post test for the EC group (skewness = 2.59), the other variables were approximately normally distributed within each group. We however proceeded with ANOVA given its toleration for slight skewness (Lared Statistsics, 2018). The homogeneity of variances assumption was violated for Task 1, and thus we proceeded with Welch's ANOVA for this task. For Task 2 and Task 3 the homogeneity of variances assumption was met, and for these tasks we proceeded with one-way ANOVAs.

5.2 Results

5.2.1 1) How do the Albanian children perform in EC and derivational and compounding morphology tasks?

Results are summarised inTable 2 and

Table 3. For the FHT, results show that children score highest at Task 1 (Facial Expression Matching; *M* = 11.53, *SD* = 1.48), with most children achieving ceiling. The second highest score is for Task 3 (Receptive Knowledge of Emotion Labels; *M* = 10.28, *SD* = 1.95), with multiple children achieving ceiling for this task, and with most children being able to correctly answer most questions. This was followed by Task 4 (Expressive Understanding of Emotion Situations; *M* = 9.00, *SD* = 2.35). The poorest performance from the tasks with a maximum score 12, was for Task 2 (Expressive Knowledge of Emotion

Labels, *M* = 4.28, *SD* = 2.78). Considering qualitatively children's responses, multiple children stated the emotion's behavioural manifestation (e.g., 'smiling/laughing' for happiness) instead of the emotion label. For the morphology test's task, on average, children were able to answer correctly less than half of the questions.

Table 2

Descriptive Statistics of Children's Performance on the Fikiria Hisia Test (FHT), Overall and Each Task

Task	*M*	*SD*	Maximum Score
Emotion Comprehension (Composite FHT)	52.98	8.48	76
Task 1 (Facial Expression Matching)	11.53	1.48	12
Task 2 (Expressive Knowledge of Emoiton Labels)	4.28	2.78	12
Task 3 (Receptive Knowledge of Emotion Labels)	10.28	1.95	12
Task 4 (Expressive Understanding of Emotion Situations)	9.00	2.35	12
Task 5 (Receptive Interpretation of Emotion-Eliciting Situations)	8.06	1.56	12
Task 6 (Expressive Interpretation of Emotion-Eliciting Situations)	8.25	1.59	12
	Mdn	IQR	Maximum Score
Task 7 (Receptive Unverstanding of Reminders as Emotion-Elicitors)	1.00	1.00	2
Task 8 (Expressive Understanding of Reminders as Emotion-Elicitors)	1.00	1.00	2

Note: The scores reported are at baseline performance (pre-test).

Table 3

Descriptive Statistics of Children's Performance on the Derivational and Compound Morphology Test (DCMT), Overall and Each Task

Task	*M*	*SD*	Maximum Score
Derivational and Compound Morphology (Composite DCMT)	11.36	4.53	33
Task 1 (Prefixes and Suffixes, General)	2.96	1.51	10
Task 2 (Prefixes to form Opposites)	3.68	2.10	13
Task 3 (Compound Words)	4.72	1.73	10

Note: The scores reported are at baseline performance (pre-test).

5.2.2 2**a.i) Does an EC intervention focused solely on happiness and sadness improve overall EC for Albanian children as compared to a language intervention?**

Table 4 displays the results. One-way ANOVA results showed that the EC group (*M* = 15.04; *SD* = 5.16) improved significantly more in FHT performance between pre-test and post-test, $F(1, 51) = 94.28$, $p < .001$, $\eta^2 = 0.65$, than the morphology group (*M* = 3.26, *SD* = 3.56).

Including the MAIN story structure at pre-test as a covariate in one-way ANCOVA analysis, only slightly affected the findings, with results showing that the EC group (M = 15.04; SD = 5.16) improved significantly more in FHT performance, $F(1, 50) = 106.73$, $p < .001$, $\eta^2 = 0.68$, than the morphology group (M = 3.26, SD = 3.56).

Table 4

Comparison of Change in FHT Scores between Pre-Test and Post-Test (Time 2 – Time 1) between the Emotion Comprehension Group and the Morphology Group

	Emotion Comprehension Group (N = 26)		Morphology Group (N = 27)		One-Way ANOVA				
	M	*SD*	*M*	*SD*	*F*	*df* (Num)	*df* (Den)	*p*	η^2
FHT (composite) change in scores (T2-T1)	15.04	5.16	3.26	3.56	94.28	1	51	< .001***	0.65

One-way ANCOVA				
F	*df* (Num)	*df* (Den)	*p*	η^2
106.73	1	50	< .001***	0.68

Note: *** $p < .001$

2a.ii) Because we found the EC group to improve more in FHT (composite of all tasks) between pre-test and post-test than the morphology group, we now turn to exploring *which components of FHT are improved*. It should be noted that since we run seven tests to answer this question, the Bonferroni-adjusted p-value for this analysis is 0.0071.

Table 5 summarises the results. For Task 2 (Expressive Knowledge of Emotion Labels), results show that children in the EC group (M = 6.12; SD = 2.80) improved significantly more in performance, Welch$F(1, 38.91) = 68.44$, $p < .001$, $\eta^2 = 0.58$, than the morphology group (M = 0.93, SD = 1.57). Similarly, for Task 3 (Receptive Knowledge of Emotion Labels), where the MAIN story structure at pre-test scores were included as a covariate, one-way ANCOVA results show that children in the EC group (M = 1.42; SD = 1.39) improved significantly more in performance, F(1, 50) = 12.16, p = .001, $\eta^2 = 0.20$, than those in the morphology group (M = 0.26, SD = 1.02). The results would be very similar also if the covariate was not included (Welch $F(1, 45.86) = 11.98$, $p = .001$, $\eta^2 = 0.19$).

For Task 4 (Expressive Understanding of Emotion Situations) children in the EC group (M = 2.19; SD = 1.92) improved significantly more in performance, Welch $F(1, 37.33) = 19.35$, $p < .001$, $\eta^2 = 0.28$, than the morphology group (M = 0.33, SD = 1.00). For Task 5 (Receptive Interpretation of Emotion-Eliciting Situations) results also show that the EC group

(*M* = 1.88; *SD* = 1.45) improved significantly more in performance, $F(1, 51) = 11.53$, $p = .001$, $\eta^2 = 0.18$, than the morphology group (*M* = 0.48, *SD* = 1.55). Similarly, for Task 6 (Expressive Interpretations of Emotion-Eliciting Situations), one-way ANOVA results show that the EC group (*M* = 2.08; *SD* = 1.35) improved significantly more in performance, $F(1, 51) = 27.08$, $p < .001$, $\eta^2 = 0.35$, than the morphology group (*M* = 0.33, *SD* = 1.07).

For Task 7 (Receptive Understanding of Reminders as Emotion-Elicitors), the EC group (*Mean Rank* = 30.60, *Mdn* = 0.5, *IQR* = 1) and the morphology group (*Mean Rank* = 23.50, *Mdn* = 0, *IQR* = 1) did not differ significantly in their performance change between pre-test and post-test, $H(1) = 3.37$, $p = .066$, $\eta^2 = 0.05$. Contrastingly, for Task 8 (Expressive Interpretation of Reminders as Emotion-Elicitors), the EC group (*Mean Rank* =32.19, *Mdn* = 1; *IQR* = 1) improved significantly more in performance between pre-test and post-test that the morphology group (*Mean Rank* = 22.00, *Mdn* = 0, IQR = 0), $H(1) = 7.34$, $p = .007$, $\eta^2 = 0.12$.

Table 5

Comparison of Change in Scores for Each FHT Task between Pre-Test and Post-Test (Time 2 – Time 1) between the Emotion Comprehension Group and Morphology Group

Change in Scores T2 - T1	Emotion Comprehension Group (*N* = 26)			Morphology Group (*N* = 27)			Welch's ANOVA				
	M	*SD*		*M*	*SD*		Welch-*F*	*df* (Num)	*df* (Den)	*p*	η^2
Task 2	6.12	2.8		0.93	1.57		68.44	1	38.91	< .001***	0.58
Task 3	1.42	1.39		0.26	1.02		11.98	1	45.86	0.001**	0.19
Task 4	2.19	1.92		0.33	1		19.35	1	37.33	< .001***	0.28
							One-Way ANOVA				
	M	*SD*		*M*	*SD*		*F*	*df* (Num)	*df* (Den)	*p*	η^2
Task 5	1.88	1.45		0.48	1.55		11.53	1	51	0.001**	0.18
Task 6	2.08	1.35		0.33	1.07		27.08	1	51	< .001***	0.35
							Kruskal-Wallis				
	Mean Rank	*Mdn*	IQR	Mean Rank	*Mdn*	IQR	*H*	*df*	*p*	η^2	
Task 7	30.6	0.5	1	23.5	0	1	3.37	1	.07	0.05	
Task 8	32.19	1	1	22	0	0	7.34	1	.007**	0.12	

Note: ** $p < .01$; *** $p < .001$; Given multiple comparisons, the Bonferroni-adjusted *p*-value for this analysis is 0.0071.

5.2.3 2 b.i) Does an EC intervention focused solely on happiness and sadness improve EC of anger and fear for Albanian children as compared to a language intervention?

Results (Table 6) showed that the EC group (M = 7.92; SD = 3.86) improved significantly more in FHT anger and fear items performance, *Welch* $F(1, 38.89) = 40.90$, $p < .001$, $\eta^2 = 0.45$, than the morphology group (M = 2.31, SD = 2.15).

Table 6

Comparison of Change in Scores for Composite FHT, Anger and Fear Items Only, between Pre-Test and Post-Test (Time 2 – Time 1) between the Emotion Comprehension Group and Morphology Group

Change in scores (T2-T1)	Emotion Comprehension Group (N = 26)		Morphology Group (N = 27)		Welch's ANOVA				
	M	*SD*	*M*	*SD*	*F*	*df* (Num)	*df* (Den)	*p*	η^2
FHT Anger, Fear (composite) T2-T1 Change	7.92	3.86	2.31	2.15	40.9	1	38.89	< .001***	0.45

Note: *** $p < .001$

2b.ii) Because we found that the EC group improved more in FHT (composite) anger and fear items than the morphology group, we now turn to exploring *which components of child EC are improved.* Since we run seven tests to answer this question, the Bonferroni-adjusted *p*-value for this analysis is 0.0071.

Table 7 summarises the results. For Task 2 (Expressive Knowledge of Emotion Labels) anger and fear items, the EC group (M = 3.58; SD = 2.02) improved significantly more in performance, $F(1, 51) = 17.97$, $p < .001$, $\eta^2 = 0.26$, than the morphology group (M = 1.44, SD = 1.69). Similarly, for Task 3 (Receptive Knowledge of Emotion Labels) anger and fear items, children in the EC group (M = 0.88; SD = 1.33) improved significantly more in performance, Welch $F(1, 45.29) = 7.61$, $p = 0.008$, $\eta^2 = 0.13$, than those in the morphology group (M = 0.00, SD = 0.96).

For Task 4 (Expressive Understanding of Emotion Situations) anger and fear items the EC group (M = 1.08; SD = 1.44) improved significantly more in performance, Welch $F(1, 36.40) = 8.73$, $p = .005$, $\eta^2 = 0.15$, than the morphology group (M = 0.15, SD = 0.72). For Task 5 (Receptive Interpretation of Emotion-Eliciting Situations) anger and fear items also the EC group (M = 1.04; SD = 1.25) improved significantly more in performance, $F(1, 51) =$

5.76, $p = .02$, $\eta^2 = 0.10$, than the morphology group ($M = 0.30$, $SD = 0.99$) [Note that this is not statistically significantly different if we use the Bonferroi-adjusted *p*-value]. Similarly, for Task 6 (Expressive Interpretations of Emotion-Eliciting Situations) anger and fear items, the EC group ($M = 0.88$; $SD = 0.86$) improved significantly more in performance between pre-test and post-test, $F(1, 51) = 16.74$, $p < .001$, $\eta^2 = 0.25$, than the morphology group ($M = 0.07$, $SD = 0.55$).

For Task 7 (Receptive Understanding of Reminders as Emotion-Elicitors) anger and fear items, the EC group (*Mean Rank* = 29.04, *Mdn* = 0, *IQR* = 1) and the morphology group (*Mean Rank* = 25.04, *Mdn* = 0, *IQR* = 0) did not differ significantly in their change in performance from pre-test to post-test, $H(1) = 1.67$, $p = .20$, $\eta^2 = 0.01$. Similarly, for Task 8 (Expressive Interpretation of Reminders as Emotion-Elicitors), the EC group (*Mean Rank* =28.63, *Mdn* = 0; *IQR* = 0.25) and the morphology group (*Mean Rank* = 25.43, *Mdn* = 0, IQR = 0) did not differ significantly in the change in their performance from pre-test to post-test for the anger and fear items $H(1) = 1.35$, $p = .25$, $\eta^2 = 0.01$.

Table 7

Comparison of Change in Scores for Each FHT Task, Anger and Fear Items Only, between Pre-Test and Post-Test (Time 2 – Time 1) between the Emotion Comprehension Group and Morphology Group

Change in Scores T2 - T1 Anger and Fear Items Only	Emotion Comprehension Group (N = 26)			Morphology Group (N = 27)			One-Way ANOVA				
	M	*SD*		*M*	*SD*		*F*	*df* (Num)	*df* (Den)	*p*	η^2
Task 2	3.58	2.02		1.41	1.69		17.97	1	51	< .001***	0.26
Task 5	1.04	1.25		0.30	0.99		5.76	1	51	0.02*	0.1
							Welch's ANOVA				
	M	*SD*		*M*	*SD*		Welch-*F*	*df* (Num)	*df* (Den)	*p*	η^2
Task 3	0.88	1.33		0	0.96		7.61	1	45.29	.008**	0.13
Task 4	1.08	1.44		0.15	0.72		8.73	1	36.4	.005**	0.15
Task 6	0.88	0.86		0.07	0.55		16.74	1	51	< .001***	0.25
							Kruskal-Wallis				
	Mean Rank	*Mdn*	IQR	Mean Rank	*Mdn*	IQR	*H*	*df*	*p*	η^2	
Task 7	29.04	0	1	25.04	0	0	1.67	1	.20	0.01	
Task 8	28.63	0	0.25	25.43	0	0	1.35	1	.25	0.01	

Note: * $p < .05$; ** $p < .01$; *** $p < .001$; The Bonferroni-adjusted *p*-value for this analysis is 0.0071; The difference between the groups for Task 5 is no longer significant after applying the Bonferroni-adjusted *p*-value.

5.2.4 3 a) Does a morphology intervention focusing solely on derivational morphology improve derivational and compound MA for Albanian children as compared to an EC intervention?

Results (Table 8 showed that the morphology group (M = 10.37; SD = 4.08) improved significantly more in DCMT performance, Welch $F(1, 34.06) = 63.61$, $p < .001$, $\eta^2 = 0.55$, than the EC group (M = 3.61, SD = 1.62).

Table 8

Comparison of Change in Scores for the Derivational and Compound Morphology Test (Composite) between Pre-Test and Post-Test (Time 2 – Time 1) between the Morphology Group and Emotion Comprehension Group

Change in scores (T2-T1)	Morphology Group (N = 27)		Emotion Comprehension Group (N = 26)		Welch's ANOVA				
	M	*SD*	*M*	*SD*	Welch-*F*	*df* (Num)	*df* (Den)	*p*	η^2
Derivational and Compound Morphology Test	10.37	4.08	3.61	1.62	63.61	1	34.06	< .001***	0.55

Note: *** $p < .001$

5.2.5 3 b) Which components of derivational and compound MA are improved?

Table 9 displays the results. For Task 1 (Prefixes and Suffixes, General), the morphology group (M = 4.22; SD = 1.91) improved significantly more in performance, Welch $F(1, 32.90) = 54.02$, $p < .001$, $\eta^2 = 0.51$, than the EC group (M = 1.35, SD = 0.69). Similarly, for Task 2 (Prefixes for Opposites), the morphology group (M = 4.30; SD = 1.96) improved significantly more in performance, Welch $F(1, 34.95) = 48.05$, $p < .001$, $\eta^2 = 0.48$, than the EC group (M = 1.46, SD = 0.81). For Task 3 (Compound Words), also, the morphology group (M = 1.85; SD = 0.95) improved significantly more in performance, $F(1, 51) = 18.67$, $p < .001$, $\eta^2 = 0.27$, than the EC group (M = 0.81, SD = 0.80).

Table 9

Comparison of Change in Scores for each Task of the Derivational and Compound Morphology Test between Pre-Test and Post-Test (Time 2 – Time 1) between the Morphology Group and Emotion Comprehension Group

Change in Scores T2 - T1 DCMT	Morphology Group (*N* = 27)		Emotion Comprehension Group (*N* = 26)		Welch's ANOVA				
	M	*SD*	*M*	*SD*	Welch-*F*	*df* (Num)	*df* (Den)	*p*	η^2
Task 1	4.22	1.91	1.35	0.69	54.02	1	32.90	< .001***	0.51
Task 2	4.30	1.96	1.46	0.81	48.05	1	34.95	< .001***	0.48
					One-Way ANOVA				
	M	*SD*	*M*	*SD*	*F*	*df* (Num)	*df* (Den)	*p*	η^2
Task 3	1.85	0.95	0.81	0.80	18.67	1	51	< .001***	0.27

Note: *** $p < .001$

6 Discussion

The present study aimed to explore Albanian 4- to 5-year-old children's EC and morphology skills. Further, it aimed to assess the effectiveness in improving these skills using two targeted interventions: an EC intervention and a derivational morphology intervention. Moreover, it aimed to investigate far-transfer effects. First, whether the EC intervention focusing on happiness and sadness has far-transfer effects to children's EC of anger and sadness. Second, whether the morphology intervention focusing on derivational morphology had far-transfer effects on compounding morphology skills. We found that Albanian 4- to 5-year-olds EC is relatively high on the task used, with children reaching ceiling in some EC component tasks. The children found it difficult, however, to label emotions. In derivational and compounding morphology, Albanian 4- to 5- year-olds answered less than half of the questions.

To investigate the effectiveness of the interventions we compared gains in emotion comprehension and morphology of a group receiving an EC intervention with another receiving a morphology intervention. These groups acted as active control groups to one another. To reduce any confounds, the two interventions' activities, group sizes and timelines were designed to mirror each other as much as possible. Regarding the EC intervention, the EC group improved significantly more in their overall EC scores than the morphology group children. This was also true for all the EC components, apart from the Receptive Understanding of Reminders as Emotion-Elicitors task (note that Facial Emotion Matching was not tested). The EC group also improved more than the morphology group in their overall understanding of fear and anger, and all the EC components tested apart from the Receptive Understanding of Reminders as Emotion-Elicitors and Expressive Interpretation of Reminders as Emotion-Elicitors task (and the Receptive Interpretation of Emotion-Eliciting Situations after applying Bonferroni corrections). Regarding the morphology intervention, the

morphology group improved significantly more in their overall MA skills than the EC group, and this held also for all the morphology tasks tested (Suffixes and Prefixes, General; Prefixes for Opposites; Compound Words).

6.1 Interpretation of Findings and Specific Implications

6.1.1 Albanian 4- to 5-year-old children's Emotion Comprehension

We used the FHT (Simmons and Nag, 2021) to measure children's EC. This task has investigated EC for 5- to 6-year-old Zanzibari children in Tanzania. FHT's Emotion Facial Expression Matching Task, Receptive Knowledge of Emotion Labels Task, Expressive Knowledge of Emotion Labels Task and Receptive Knowledge of Emotion-Eliciting Situation Task match closely four tasks of the Emotion Matching Task (Izard et al., 2003), whereby the maximum score per sub-task was also 12. Therefore, we can compare to studies using this task too. We found that children in our study performed best in the Facial Expression Matching Task, whereby most children achieved ceiling. This contrasts the Zanzibari children investigated by Simmons and Nag (2021) whereby on average children scored slightly more than half the items of this task correctly. It is also in contrast 3- to 6-year-olds Spanish (Alonso-Alberca et al., 2012) and American (Morgan et al.,2010) children, who also did not perform at ceiling in a similar sub-task. This might point to cross-cultural differences in children's ability to match facial expressions.

For the Receptive Knowledge of Emotion Labels task, the children in our study also performed very high, with some reaching ceiling. Performance in a similar sub-task of the Emotion Matching Task for 3- to 6-year-old Spanish (Alonso-Alberca et al., 2012) and American children (Morgan et al., 2010) was also very good. On the other hand, for 5- to 6-year-old Zanzibari children, on average, answered just slightly more than half of the questions correctly (Simmons & Nag, 2021). This points to some cultural differences in understanding emotion labels and/or choosing a facial expression that matches a label, with Albanian children resembling more the performance of Western children on this task.

For the Expressive Understanding of Emotion Situations both Albanian children in the present study, and Zanzibari children in Simmons and Nag's (2021) study performed well, answering, on average, more than half of the questions. There is no similar task to this in the Emotion Matching Task. For the Receptive Knowledge of Emotion-Eliciting Situations Task, children in the present study also, on average, answered more than half of the question, and so did 3- to 6- year-old Spanish and American children in a similar sub-task of the Emotion

Matching Task (Alonso-Alberca et al., 2012; Morgan et al., 2010). Simmons and Nag (2021) do not report mean and standard deviation scores for this task, and neither for the Expressive Knowledge of Emotion-Eliciting Situations Task, so we cannot compare between them. For the skills measured by these tasks there seems to be more cross-cultural similarity.

For the last two comparisons (Expressive Understanding of Emotion Situations between Albanian and Zanzibar children; and Receptive knowledge of Emotion-Eliciting Situations Task between Albanian and Spanish children), Albanian children had slightly higher scores, but we do not know whether the difference is statistically significant. Interpretations of comparisons between countries should be made carefully, however, due to the non-representativeness all these studies' samples to the general population.

Our lowest score was for the Expressive Knowledge of Emotion Labels Task, whereby children, on average, answered less than half of the questions correctly. It was also noted qualitatively that many children answered with the behavioural manifestation of the emotions rather than the target emotion label. The score for this task was also low for the Zanzibari preschoolers in Simmons and Nag (2021) study, whereby some children also tended to answer with emotions' behavioural manifestation. While this indicates a cross-cultural similarity, in a very similar sub-task of the Emotion Matching Task, 3- to 6-year-old Spanish and American children did not seem to perform so poorly. They answered, on average, more than half of the questions correctly (Alonso-Alberca et al., 2012; Morgan et al., 2010). It might be that Albanian and Zanzibari cultures place more importance to understanding emotion expressions and focusing on behavioural manifestations rather than labelling emotions, which might be more important/a task done more often in Spanish and American kindergartens. General expressive language abilities might also play a role in these cross-cultural differences, given that Albanian children had a good receptive knowledge of emotion labels but not a good expressive knowledge. We do not know about Albanian children's general expressive language abilities. Future cross-cultural research is needed to confirm and accurately interpret these differences.

Our results also show that children in the FHT task could answer some items correctly and others incorrectly for the same component. This finding aligns with ideas from Nook et al. (2017) indicating younger children's reliance on emotion's valence more than arousal dimensions. This is because upon further inspection of children's answers, we noticed that children were better in responding correctly when the choice was between emotions of

different valence, rather than of same valance but different arousal. For example, confusion of the correct answer between sadness and anger was common, whereas between sadness and happiness was not. This suggests that if there is only a single question for each component, as in the Test of Emotion Comprehension (Pons & Harris, 2000), depth of children's understanding for each component may be lost in the measure. This, therefore, also calls for using tasks considering children's depth each EC component on developmental and intervention studies, where it is important to consider gains in children's comprehension of each component with age/intervention.

6.1.2 Albanian 4- to 5- year-old children's derivational and compound MA

Children in the present study seemed to find all the morphological tasks difficult, answering fewer than half of the questions. This is not very surprising and aligns with the literature on other languages, finding kindergarteners' performance on derivational and compound morphology tasks poor. Carlisle and Nomanbhoy (1993), found that English-speaking kindergarteners' sentence completion task (production of derived words) performance was 23% for phonologically-transparent derived words. This is a similar task to Task1 (Suffixes and Prefixes Task, General) in the present study whereby children needed to answer to questions producing phonologically transparent derived words, and to some extent even Task2 (Prefixes for Opposites), whereby children needed to produce derived words with opposite meanings by adding prefixes. Similarly, Casalis and Louis-Alexandre (2000) found French-speaking kindergarteners to find sentence completion tasks requiring derived word production difficult, answering on average only 40% correctly. This displays cross-linguistic similarity in MA development, with preschoolers finding morphology tasks difficult regardless of spoken language. This cross-linguistic similarity is interesting given the differences in languages' morphology complexity and exposure opportunities for children. While exposure and knowledge of many morphologically complex words might promote MA (e.g., Duncan et al., 2009; Taft, 2003), MA still overall remains poor in kindergarten.

Comparisons between studies and languages should be made cautiously because the test used in the present study and many other MA studies are not standardised. Therefore, it is not known whether task difficulty is comparable. Furthermore, the present study's and other studies' samples may not be representative of populations. Thus, generalisations to countries should be made carefully.

Fewer studies have considered kindergarteners' compound MA. However, just like in our sample, these studies find kindergarteners to find compound tasks difficult. Ramirez et al. (2014), for instance, found Canadian 5- to 6-year-olds at pre-test, on average, answered correctly only 37.6% of times for compound words creation. However, the compound morphology task in Ramirez et al. (2014) study was different to the one in the present study, as it required production of compound words, whereas the present study's task required understanding them. Nonetheless, while more studies and converging evidence is needed, this suggests cross-linguistic kindergarteners' MA being low. Whether this is related to age or understanding of tasks and more general language/reading skills needs to be explored through mediation analysis.

6.1.3 The Emotion Comprehension Intervention

We found that EC intervention focusing solely on happiness and sadness, developed for Albanian 4- to 5-year-olds, improved EC intervention group children's overall EC significantly more than that of morphology intervention children, and with a large effect size. This is an initial positive indication showing Albanian kindergarteners emotion understanding can be improved through intervention. Caution is needed generalizing this given our sample's non-representativeness. Nonetheless, this finding adds to the literature from other countries, showing that cross-culturally conversational and shared book reading approaches, including direct instruction about emotions promotes children's EC (e.g., Aznar & Tenenbaum, 2013; Grazzani et al., 2015). Importantly, thisalso shows the effectiveness of a contextualised emotion intervention. For instance, we chose Albanian author's children's books to have our conversations regarding emotions guided from a culturally appropriate story. Engaging culturally appropriate content of the books might have helped children to relate more to the characters' emotions and promote more references to children's daily lives which could aid EC. Indeed, references to children's lives and relating to story characters are seen as important parts of shared interactive book reading models (Curenton, 2011). While the level of relatedness that culturally appropriate books enable needs to be further explored to make firm conclusions, the effectiveness of a contextualised intervention with local materials shows that Albania does not need to adopt foreign measures, but can develop contextual, culturally appropriate ones.

We also considered which EC components improved more in the EC group than the morphology group. We found performance of all EC tasks of the FHT, apart from the

Receptive Understanding of Reminders as Emotion-Elicitors task, improved more for the EC group than for the morphology group. It should be noted that performance improvement comparisons for the Facial Expression Matching task that was not tested due to large ceiling at pre-test. The fact that the EC intervention group improved more in the majority of the FHT tasks than the morphology group is a positive indication that the EC intervention developed in this study seems to be effective.This again aligns with previous cross-cultural research showing EC conversational and shared book reading interventions for kindergarteners to improve multiple EC components (Sprung et al., 2015).Future research could explore whether our intervention focusing only on 'recognition', 'external causes' and 'reminders' improves children's comprehension of other emotion components of the Pons et al. (2004) model, such as Mixed Emotions, or Hiding of emotion, for which the components our intervention targeted are prerequisites (Pons et al., 2004). Our resultsalso suggest space for improvement in kindergarteners' 'recognition', 'external causes' and 'reminders' components, and individual differences between kindergarteners.Therefore, before aiming to further children's development of components that have been suggested by research to develop later (Pons et al., 2004), it may be useful for interventions to further develop these components for kindergarteners.

The Receptive Understanding of Reminders as Emotion-Elicitors task has only two questions and thus maximum score two points. As argued above this may have limited our ability to consider the depth of children's understanding of this component. Also, the use of non-parametric tests to compare the groups' performance for this item may have reduced our statistical power. Future research should therefore aim to include more items for the Reminders components. Regarding the Facial Expression Matching tasks, the majority children performed at ceiling in pre-test, which may show that Albanian 4- to 5-year-olds may have already mastered this skill before any intervention, and thus improvement in this task could not be explored.

We also considered the far-transfer effects of an EC intervention focusing solely on happiness and sadness, to children's comprehension of anger and fear. We found evidence of far-transfer, in that children in the EC group improved more in their overall understanding of anger and fear than children in the morphology group. Prior research, to our knowledge, had not explored this type of far-transfer. This finding is important to show that children's training in some emotion also improves other non-trained emotions. It is also important in attempts to develop time-effective EC interventions, in that fewer emotions can be trained to

improve children's comprehension of more emotions. This study, therefore, informs the recent call in the emotion development field to find time- and cost-effective interventions (e.g., Pons et al., 2019). This far-transfer wasonly assessed for negative valence emotions (anger and fear). It could be interesting and important to explore whether there is also far-transfer to positive valence emotions. Given previous research that has shown younger children to display a positivity bias in emotion processing(Bahn et al., 2017), we would expect kindergarten children to also show far-transfer for positive emotions. However, this should be investigated by future research using EC tests that do not constrain to one positive emotion.

For far-transfer on anger and fear comprehension we found that theEC group's performance improved more than the morphology group's for all tasks apart from the Receptive Understanding of Reminders as Emotion-Elicitors task, Expressive Interpretation of Reminders as Emotion-Elicitors task, and also after correcting for multiple analysis for the Receptive Interpretation of Emotion-Eliciting Situations. Due to ceiling effects at pre-test, the Facial Expression Matching task was again not included. These findings show the EC intervention developed for this study to be effective in improving a range offar-transfer EC skills, which is important in the context of far-transfer to see which EC skills improved, in particular, are generalisable to untrained emotions. This is an important addition to the EC literature, and future research should further explore the limits of this far-transfer. Further, we again suggest future research to include more items for both tasks on 'reminders' to enable more robust and nuanced findings.The Morphology Intervention

6.2 The Morphology Intervention

We found that the derivational morphology intervention improved the overall performance in a derivational and compound morphology task of children receiving this intervention more than that of children receiving an EC intervention. No prior study had developed and tested the effectiveness of a MA intervention for Albanian kindergarteners. Therefore, these findings align with cross-linguistic research showing that MA interventions can improve kindergartener's MA skills (e.g., Casalis and Colé, 2009; Lyster, 2002; Chow et al., 2008), and also adds to the Albanian literature of effective contextualised interventions. This finding is important in the Albanian context where the curriculum states the interest in developing children's MA skills. However, given our sample's non-representativeness generalisations should be done with care.

Our intervention used Albanian authors' children's books to guide our choice and conversations of the morphological components and words used in the intervention. We believe that the shared book reading approach, and the prompting of children to focus on finding a word which contains an affix while the story was read to them, might have put the words into context for children, instead of presenting them in isolation, which could have helped with their word comprehension and affixes' comprehension. Indeed, research has shown that shared book reading approaches help in multiple aspects of language development (Dowdall et al., 2020), such as vocabulary (in our case word comprehension), and that vocabulary development contributes in MA development (Ramirez et al., 2014). However, future research should test our suggestion of the role of a shared book reading approach in MA specifically.

While morphological intervention research in other languages has sought explore the far-transfer effects of morphological interventions in a wide range of literacy skills (e.g., reading ability, vocabulary) this was beyond our study's scope. Considering such far-transfer is promising future research. Because of the extreme transparency of Albanian language (Hoxhallari, 2006) such research would further inform international literature on whether orthography's transparency affects MA's role in reading, vocabulary, spelling and/or other skills, which is what some current research is interested in. For instance, Manolitsis et al., (2017) suggested that the Greek languages' orthographic transparency, which allows children to effectively read through letter-sound conversion, results in MA not playing a unique role for reading fluency. Testing this with Albanian children, would therefore, add to the understanding of the mediation and/or moderation effects that orthography and its demands on skills such as method of reading may have on MA's role in other skills. Such findings would also inform on how to best assist children's wider language development based on the orthography of the linguistic context.

Considering task-specific improvement, we found that the morphology intervention group's performance on the Prefixes and Suffixes (General) task, as well as on Prefixes for Opposites task improved more than that of the EC intervention group. These tasks, while similar in their requirement to produce derived words, may place different demands on children, with the Prefixes and Suffixes (General) task requiring mostly understanding of affixes playing a syntactic role, whereas the Prefixes for Opposites task requiring an understanding of an 'opposite' and that affixes enable expressions of opposites. Our intervention, which had specific lessons designed for both, seems to improve both. It could

also be interesting to investigate whether training in only one of these would lead to an improvement in the other skill. While our findings for these two tasks may be an indication of children's improved MA due to the intervention, we should be careful when making such interpretation since it may also be that children's performance may have improved due to memorisation of words and rules from the intervention rather than their awareness of morphology. Nonetheless, these tasks also included words not explicitly trained in the intervention, which may make memorisation less likely to be the (main) influence.

Furthermore, children receiving the derivational morphology also improved more in their compound words' performance than the EC group. This is a far-transfer effect, in that children improved in their compound word understanding without this being trained in the intervention. This is an important finding suggesting children's MA improvement without confounds of memorisations of words from the intervention. Furthermore, this far-transfer finding may also be used in designing time-effective morphological interventions, as it shows that training on one morphological aspect improves another. Therefore, it would be interesting to consider whether the intervention focusing solely on derivational morphology also improves inflectional morphology skills, and while this is beyond the scope of this study, future research could explore this.

6.3 Overall Limitations and Suggestions for Future Research

While specific limitations and suggestions for future research have been discussed in Section6.1, here we provide general limitations for this study and future research suggestions. An important point is that our study's sample is not representative of the Albanian population, making generalisations of the findings more difficult. Future research should thus test these findings with other Albanian children, such as from different socio-economic backgrounds and across country. Literature from other countries suggests that children from different socio-economic backgrounds respond differently to MA interventions (e.g., Lyster, 2002), and that socio-economic status is related to EC (e.g., Cutting & Dunn, 1999). Thus, socio-economic background might also make a difference for children's response to either of the interventions developed for this study. Geographical differences across Albania may make a difference in children's response especially to the morphology intervention which was delivered by the researcher in Albanian standard language and morphology, given the different dialects spoken in the North and South of Albania which even contain some different affixes.

A further limitation is that we do not know how durable the effects of these interventions are on children, since we did not have a delayed post-test measure. For the interventions to be considered effective and fruitful to implement for children, the effects of the interventions should be long-lasting. Therefore, future research could also explore how durable the effects of the interventions are.

Another limitation concerns the fact that the researcher who delivered the interventions also tested the children. Thus, this was not a blind design, which may have biased the findings (e.g., Hróbjartsson et al., 2013). However, the researcher carefully followed the protocol in testing children in order to minimise any bias in the findings.

Our interventions were researcher-delivered. It is not known, therefore, whether if teachers, social workers and/or psychologist deliver these interventions their effectiveness will be the same, a common issue with researcher-delivered interventions (e.g., Sprung et al., 2015). The children were taken out of their classrooms for this intervention in groups of seven or eight. This may not be feasible to do in the context of Albanian kindergarteners where there are big groups of children in the same classroom and fewer teachers. Future research should explore the effectiveness of these interventions if delivered by teachers, social workers and/or psychologists in a context that resembles the kindergarten classrooms more.

Despite these limitations, this research was the first to consider the effectiveness of an EC and MA intervention developed for Albanian kindergarteners, in Albanian kindergarteners' EC and MA skills. These findings therefore could serve as initial positive indications that these interventions may be helpful in the Albanian context. Furthermore, this study considered far-transfer skills of both interventions on other related skills (understanding of anger and fear for EC focusing on happiness and sadness and understanding of compound words for morphology intervention focusing on derivation) which was lacking, to our knowledge, in previous research. These findings could serve as initial useful indications for time-effective intervention development. It also provided some indications of 4- to 5- year-old Albanian children's EC and derivational and compound MA skills. Future research can therefore build on these findings.

7 Conclusions

This study explored Albanian children's EC and derivational and compound morphology skills. It found that the Albanian kindergarteners' EC skills were seemingly better in some tasks, and similar in other tasks, to these of children from other cultures (Zanzibar, Spain, America) which had used the same or a similar EC test to the one used in this study. It also found that Albanian kindergarteners found derivational and compounding morphology tasks difficult, a finding aligning with research from other countries. Furthermore, it was the first study to develop and test two contextualised interventions for Albanian Kindergarteners, one aiming to improve EC and the other morphology skills, which were found effective in improving these skills, respectively. It also considered some far-transfer effects of the EC intervention focusing on happiness and sadness to understanding of anger and fear, and of the morphology intervention focusing on derivations, to compound words understanding. Evidence of far-transfer were found for both. Therefore, this study, overall, provides evidence that EC and morphology skills can be trained through interventions for Albanian 4- to 5- year-old kindergarteners. While this needs to be tested with a larger and more representative sample, it provides evidence of the effectiveness of the interventions developed for this study in improving EC and derivational morphology skills, and also evidence that the skills trained generalise to other similar skills (e.g., understanding of other emotions, namely anger and fear, for the EC intervention focusing on happiness and sadness; and compound words awareness for the derivational morphology intervention). Future research could also aim to replicate these findings also in a classroom context with teachers delivering the intervention, and test the durability of these findings.

8 References

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9 Appendices

9.1 Appendix A

9.1.1 CUREC Application

SECTION A: Filter for CUREC 2 application		
This section determines whether the application for ethics review should be made using this form (CUREC 1A) or the CUREC 2 form (for research with more complex ethical issues).		
Please indicate with an 'X'.	**es**	**o**
1. Does the research involve the deception of participants?		
2. Are the research participants vulnerable in the context of the research, or classed as people whose ability to give free and informed consent is in question? For example, • Participants aged 16 or under (also answer question A5); • Participants aged 16 – 18 (refer to competent youths for guidance); • adults at risk; Note the University's Safeguarding Guidance and Code of Practice and its implications for researchers involving young people or adults at risk.		
3. By taking part in the research, will participants be at risk of criminal prosecution or significant harm?		
4. Does your research raise issues relevant to the Counter-Terrorism and Security Act (the Prevent Duty), which seeks to prevent people from being drawn into terrorism? Best Practice Guidance 07 on the Prevent Duty provides further guidance.		
If you answered **'No'** to all the questions above, go to Section B. If you answered **'Yes'** to any question above, continue to question 5 below.		
5. Is your project covered by a CUREC Approved Procedure?		
If yes, list the CUREC Approved Procedure(s) you will follow	AP25	
If you have answered '**No**' to all questions 1-4, go on to **Section B**. If you answered '**Yes**' to ANY of questions 1-4, and answered '**No**' to question 5, **stop** completing this form and do not submit it for ethical review. You will instead need to submit a CUREC 2 application form. If you answered '**Yes**' to **any** of questions 1-4, and your project is covered by an Approved Procedure, **go on to Section B**. If more than one Approved Procedure		

applies, contact the SSH IDREC or your DREC for advice on whether a CUREC 2 form should be submitted instead.

SECTION B: Researchers		
1. Name of Principal Investigator or student's supervisor	Dr XXX	
2. Department or Institute	Department of Education	
3. University of Oxford email address	xxx	
Copy and paste the following six rows as necessary to complete for each additional researcher who will be involved in this study, including student(s) and those external to the University.		
4. Name of researcher or student		
5. Department or Institute	Department of Education	
6. University of Oxford email address		
7. Role in research	Student	
8. Degree programme, if student research	MSc Education (Child Development & Education)	
The whole research team		
9. Have the researchers undertaken research ethics and integrity training?	**Yes** ☒	**No** ☐
10. Please provide details of any research ethics and integrity training undertaken, including the dates of the training. Alternatively state relevant research experience.	The student researcher is undergoing the core course of the University research integrity training. All course's modules will be completed before beginning fieldwork. The student researcher has also completed the Foundations of Educational Research 1 course as part of the MSc Education degree.	

	As part of undergraduate degree in Psychological and Behavioural Sciences at the University of Cambridge, the student researcher has completed 'Psychological Inquiry and Methods' course. This course included a class specifically focusing on 'Ethics' on 30/01/2019, as well as other classes touching upon the ethics involved in communicating research and in psychological, neurological and pharmacological interventions. Furthermore, the student researcher's undergraduate dissertation topic was highly sensitive, and therefore the student researcher was in constant discussion of ethical considerations in sensitive research topics with her dissertation supervisors.
11. State any conflicts of interest and explain how these will be addressed.	None

SECTION C: The research project	
1. Title of the research project	
Parental belief and conversing about emotions: Assessing the effectiveness of a conversational programme on the emotional development of Albanian kindergartners	
2. Anticipated start date of the aspect of the research project involving human participants and/ or personal data (**dd/mm/yy**).	02/05/2022
3. Anticipated research end date (**dd/mm/yy**).	12/08/2022
4. Provide a brief lay summary of the aims and objectives of the research. This should cover the questions it will answer and any potential benefits. (max 300 words)	

This research aims to investigate: (i) the effectiveness on enhancing children's emotion understanding following a conversational intervention in the Albanian context; (ii) whether different parental beliefs about situation resolution influence the effectiveness of the programme. We will compare the conversational intervention group (receiving shared book reading and conversations about emotions) with an active control group (receiving shared book reading and language games).

The benefits of this research are multiple, and include the following: (a) rather than generalising findings and/or implementing interventions primarily designed and tested on other contexts, a conversational programme specifically designed for, and tested in, the local Albanian context promises to provide grounded information. If effective, this programme can be a valuable addition to the curriculum, and if not effective, suggestions for future local research can be made; (b) contributing to address a gap in the literature regarding emotion intervention programmes and aiding literature's decolonisation; (c) understanding parental beliefs about situation resolution, and applying this to addressing literature's gaps on this topic.

5. Please indicate the methods to be used (indicate with an '**X**'):

Analysis of existing records	☐
Snowball sampling (recruiting through contacts of existing participants)	☐
Use of casual or local workers e.g. interpreters (refer to guidance in BPG 01: Researcher safety)	☐
Participant observation	☐
Covert observation	☐
Observation of specific organisational practices	☐
Participant completes questionnaire in hard copy [parents'/guardians complete a questionnaire]	☒
Participant completes online questionnaire or other online task (refer to guidance in BPG 06: Internet-mediated research)	☐

Using social media to recruit or interact with participants (refer to guidance in BPG 06: Internet-mediated research)	☐
Participant performs paper and pencil task	☐
Participant performs verbal or aural task (e.g. for linguistic study) [children perform a emotion representation task, a semantic fluency task and a narrative expression task]	☒
Focus group	☐
Interview (refer to guidance in BPG 10: Conducting research interviews)	☐
Audio recording of participant (you will generally need specific consent from participants for this) [audio-recordings of children's responses]	☒
Video recording of participant (you will generally need specific consent from participants for this)	☐
Photography of participant (you will generally need specific consent from participants for this)	☐
Others (please specify below) **Shared book reading and a conversational approach for the intervention group, and shared book reading and language play for the active control group.**	☒

6. Provide a brief summary of the research design and methods. What will research participants be asked to do? (max 300 words)
   Please also submit a copy of the questions participants will be asked, if applicable, or some information about the sorts of topics that will be covered.

The research will be designed as a clustered randomised controlled trial, with kindergartens randomly assigned to either the conversational intervention group, or active control group. The student researcher will deliver the activities in both groups, which will be done in groups of five to six children within kindergarten premises. Children in both groups will participate in two/three sessions a week for a total of nine sessions (please see Appendix A for lesson outlines). The student researcher will ensure that the children are not missing key academic content by scheduling the sessions in consultation with teachers. The tests will be individually administered by the student researcher in a quiet space in the kindergarten before the intervention (in the two weeks prior to the start of the intervention/active control activities), and post intervention (in the two week after the activities end). The parents/guardians of the children in the intervention group will be given a questionnaire regarding their parental beliefs about situation resolution (please see Appendix B for example questions), to be completed by them at their homes, and returned to the student researcher within kindergarten premises. This questionnaire will take approximately five to eight minutes to complete.

The test battery: both groups will complete a translated, adapted and extended version of the Fikiria Hisia Test (approximately 20 minutes), the expressive vocabulary item of the IDELA test (item 15; approximately two minutes to administer, used in this study to control for expressive vocabulary), and items from the Multilingual Assessment Instrument for Narratives (MAIN) translated and adapted in Albanian (approximately 6 minutes to administer; used here to control for expressive narrative language). The Fikiria Hisia Test has both verbal and non-verbal sections. For the non-verbal sections, the student researcher will note participant's responses by a paper and pencil. This same procedure will be used for one expressive vocabulary item of IDELA. For the verbal sections of the Fikiria Hisia Test and for children's responses on the MAIN, the student researcher will record the children's responses using a Password protected voice recorder. (Please see more information on the measures used on Appendix B; Also see section E2 of this form for how the data, including the audio recordings, will be safely stored).

7. List the location(s) where the research will be conducted, including any other countries.	Tirana, Albania: All research will be conducted within the premises of participating kindergartens.

	Parents/guardians will be able to complete their questionnaires at their homes and return them to the researcher within the kindergartens' premises.		
8. Clarify which parts of the research will be conducted in-person and which will take place remotely, e.g. online.	All parts of the research will be conducted in-person.		
9. If your research involves fieldwork or travel and your department requires a travel risk assessment, will you have completed and returned a risk assessment form beforehand? Please indicate with an '**X**'. (This must be approved by your department before you travel. If you are travelling overseas, you are advised to take out University travel insurance.) Refer to guidance available from your Department, the Safety Office, the Social Sciences Division, and the Humanities Division, and on travel for University business.		Yes	
		No	
		Not required in this instance	
10. In the case of international or collaborative research, explain how you will address any ethical issues specific to the local context. Please provide details of the local review, approval or permission obtained or required. Refer to the BPG 16: Social science research conducted outside the UK. If there will be no local review, explain why not. Please mention any stakeholder or community engagement that has been/ will be undertaken in relation to the research. Please also address any physical or psychological risks for Oxford researchers and local fieldworkers in Section G.			

The research will be conducted in Tirana, Albania. For this, the local protocols will be followed. This requires that a letter is submitted for consideration to the Municipality of Tirana, and research will proceed upon gaining permission. The letter that will be sent to this institution to seek their approval can be found in Appendix C. The engagement with the local body will begin upon receiving the CUREC approval. Albania is the student researcher's home country, and the student researcher is very familiar with the local context and speaks the Albanian language with native fluency. Therefore, the student researcher will be able to understand and address promptly any ethical issues specific to the local context if they arise at any stage of the research. Guidance from the BGP 16 will be followed throughout the research.	
11. Name of departmental/ peer reviewer (if applicable)	N/A
12. External organisation funding the research and grant reference (if applicable)	N/A
13. Please refer to the CUREC Best Practice Guidance and list any that have been used to develop your research.	BPG 05; BPG 09; BPG 16

SECTION D: Recruitment of research participants	
1. Number of participants	40-60 children participants 18-30 parents/guardians
2. How was the number of participants decided?	To determine the number of child participants needed to capture intervention effects, a power calculation was done, with effect sizes indicated from the literature being used. The power calculation resulted in an approximate sample size of 90-130 child participants. However, accounting for the feasibility of a master's dissertation, the sample

	size is adjusted to 40-60 child participants. This study is therefore to be considered an exploratory study, with the small sample size to be addressed and discussed in the study's limitation section. Regarding the number of parents/guardians, parents/guardians of all participating children who are assigned to the conversational intervention and in the active control group will be asked to participate in completing a questionnaire, and the number of participating parents/guardians is therefore dependent on their response rate. Again, acknowledging the limited sample size due to the feasibility of a master's dissertation, as well as the possibility of a low response rate from the parents/guardians, this part of the study will also be considered as exploratory, with the small sample size of parents/guardians to be addressed in the limitations section of the study. The limitations section will also consider how the sample of parents/guardians who respond to the questionnaire may be biased towards parents/guardians who are more interested in pre-school based programmes or in research studies in general.
3. Age range of participants	Participant children: 4 and 5 years old Participant parents/guardians: 18 years old and older
4. Inclusion criteria	For the participating children, the inclusion criteria are: (a) the child is 4 or 5

	years old; (b) the child is within a classroom for which the headteacher of the kindergarten had provided informed consent; (c) the child's parent/guardian has not opted out their child from the study. For the participating parents/guardians the inclusion criteria are: (a) their child is participating in the study; (b) the parent/guardian consents for their own participation in the study; (c) the parent/guardian is 18 years old or over.	
5. Exclusion criteria	The child has a known intellectual disability	
6. Indicate with an '**X**' all intended recruitment methods **Please submit copies of the recruitment material that will be used, e.g. advertisement text, introductory email text.**	Poster advert	☐
	Flyer	☐
	Email circulation [at the school and classroom level]	☒
	Social media (e.g. Twitter, Facebook)	☐
	Website	☐
	In-person approach [at the school and classroom level]	☒
	Snowball sampling	☐
	Recruitment sites (e.g. Mechanical Turk)	☐
	Existing contacts or volunteer database	☐
	Other (please specify): **Database of contacts of Tirana's kindergartens' head teachers**	☒

	that the Municipality of Tirana will provide	
7. How will potential participants be identified and approached?	In the beginning, the **Municipality of Tirana** will be contacted. This institution will be asked to agree with the realisation of this study, as well as to provide us with contact details of Tirana's kindergarten head teachers (Please see the letter that will be sent to this institution on Appendix C). Once this access and information has been made available, the kindergarten head teachers will be approached either in person and/or via email circulation, a decision to be made according to suggestions from the Municipality of Tirana. Next, the **kindergarten's head teachers** will be given information sheets about the research. They will also be informed that children in the school could be randomly allocated to either the group receiving the conversational programme or to the active control group (with kindergartens who are part of the control group to be offered all materials used in the other group and with teachers of this group to be offered training in the end of the study to be able to deliver the conversational programme if they wish). The kindergarten head teacher's agreement will be sought to participate (please see letter that will be sent to teachers on Appendix D). For the kindergartens whose head teachers agree to participate, **parents/guardians** will be contacted by the kindergartens' head teachers/teachers and they	

	will be given information sheets for two levels of participation: a) their child's participation to the study and opt-out forms b) their own participation in the study. Based on opt-outs received for child participation, the teacher/headteacher will provide the student researcher with a list of names of children whose parents/guardians have not opted them out of the study. Participating parents/guardians will be identified by their returned opt-in consent form.
8. Will informed consent be obtained from the research participants or their parents/ guardians? If not, please explain why not.	OPT-OUT FOR CHILD PARTICIPANTS For the children's participation, parents/guardians will be given information sheets and opt-out forms. This decision is made for a number of reasons. Opt-out form for child participation is reasonable and justifiable for this study. This is because the aim of the study to train Albanian kindergarteners' emotion understanding aligns with the aims of the curriculum of Albanian kindergartens. The Albanian national kindergarten curriculum clearly states that the socio-emotional development of children is part of their standards and aims. The curriculum aims to develop children's competencies, with some of the competencies aligning exactly with what the conversational intervention in this study aims to develop. For instance, two of the competencies the curriculum aims to develop is for children to predict the consequences of a

	particular behaviour and to show empathy for others. Similarly, this study aims to develop and deepen children's understanding of the emotional consequences in themselves and in others of particular behaviours. It is also part of guidance to teachers in the Albanian kindergarten system to create lessons which stimulate children's emotional development, which this study also aims to stimulate. Opt-out form for child participation is also reasonable and justifiable because the approach that the study will use is already present in the curriculum. Our study will use a conversational approach, with classes starting with shared book reading, followed by a conversation with children which will include answering questions about the emotional events and outcomes in the book story. In the country's languages and communication course that is part of the kindergarten curriculum, in some of the lessons, children are expected to listen to easy texts carefully and attentively, demonstrate that they have understood them by answering easy questions or simply summarising the text, and show interest and attention in conversations and dialogues with peers and adults. These are the strategies to be used in the intervention. OPT-IN FOR PARENT PARTICIPANTS

	Regarding parents'/guardians' participation, fully informed consent with opt-in consent forms will be obtained.
9. For each activity or group of participants, explain how informed consent will be obtained from the participants themselves and/ or their parents/ guardians, if applicable. How will their consent be recorded? **Please submit copies of all participant-facing materials for review.** E.g.: • Recruitment material (e.g. emails, posters) • Information for participants to read (or hear) before they agree to take part (e.g. written information or, if applicable, an outline oral information script). • A document to record informed consent. Further guidance and templates.	CHILD PARTICIPATION For the children's participation, parents/guardians will be given an information sheet (Appendix E for conversational intervention group; Appendix F for Control group) along with the opt-out form (Appendix G). Children will all be helped to put the form in their backpacks by their teachers at the end of a class day in order to make sure that all the forms are delivered to their parents/guardians. Also, to ensure that the parents/guardians see the forms, teachers will be requested to help. Since text messages between the kindergarten and homes have become routine in Albanian Kindergartens, teachers will be requested to send text messages to parents/guardians detailing that information sheets about the programme is sent to them and also opt-out forms. The parents/guardians will be given one-week time to return their opt-out forms. Teachers will be requested to send a text message reminder of the deadline to return the form if they want to opt-out. Parents/guardians will also be reminded for this by the teachers upon drop-off or pick-up of their child from the kindergarten.

	Teachers will be requested to collect the returned forms and provide the student researcher with a list of names of children whose parents/guardians have not opted them out of the study. Before the pre-test, children will also be given very simple oral information about the study, also asking them for their verbal assent (Appendix H). PARENT PARTICIPATION For the parents'/guardians' participation, informed consent will be obtained through an opt-in consent form. Along with the information sheet for their own participation in the study (Appendix I), this opt-in consent form (Appendix J) will also be sent to parents/guardians' in a paper format in the same way that the children's opt-out form is sent. The returned forms will be handed-in to the teacher/student researcher by the parent/guardian within kindergarten's premises. Details fo children whose parents/guardians have not opted out and parents who have additionally given informed consent for their own participation will be recorded in the following ways: a) For children's participation, the list of names who have not opted out will be drawn up by the teacher and given to the student researcher. Using this, the student researcher will create a sheet with the names of children who have not opted out, and assign a participant number. This

	will be saved safely on an encrypted, password-protected file in the research student's University Nexus365 account. b) For parent's/guardian's participation, the returned opt-in consent forms will be scanned and will be saved safely on an encrypted, password-protected file in the research student's University Nexus365 account. The paper forms will be shredded. A list of parents'/guardians' names against their participant number will also be stored safely in the same way as that of children. Please see section E2 of this form for more information on these procedures. Please find attached the following materials: • Parent/guardian information sheet for their child's participation in the study (2 versions, one for the conversational intervention group, Appendix E, and one for the active control group, Appendix F) • Parent/guardian opt-out form for their child's participation (Appendix G) • Oral information to be read to the children before pre-test, also asking for their assent (Appendix H) • Parent/guardian information sheet for the questionnaire part of the study (Appendix I) • Parent/guardian opt-in consent form for their own participation (Appendix J)
10. Provide details of any payments and incentives and the rationale for providing these. Further guidance in Best Practice Guidance: 05 Payments and incentives in research.	The children participating will be offered stickers after their completion of the pre-test and again after the post-test as a way to thank for their time and cooperation. In order for the children not to feel pressured to participate, or for them not to view their

	withdrawal as a punishment, children who do not assent to complete any part of the test battery or intervention will also be automatically offered these stickers.
11. Describe how participants • may withdraw from the study • may withdraw any personal information they have provided from the study State any limits to withdrawal, for example once the data has been anonymised or at some other specified stage prior to publication. Make sure participants are aware of any withdrawal limits.	FOR CHILD PARTICIPANTS Children may withdraw at any point by the child not giving verbally assent for their participation. Withdrawal can also be done by the teachers informing the researchers that the child's parent/guardian do not want their child to participate in the study anymore, or that the child has said to the teacher that they do not want to participate. FOR PARENTS/GUARDIANS Parents/guardians can also withdraw the collected data from their questionnaires at any point during the data collection part of the study (i.e., until the completion of the post-test measure by the children), by either contacting the researcher themselves, or by notifying the teacher that they want their questionnaire data to be withdrawn. Participants do not need to give any reasons for their withdrawal. After the data collection part of the study has ended, all the data will be anonymised. Because of this, from this point in the study, the participants cannot withdraw anymore. The participants will be fully informed on their information sheets about the withdrawal procedure and limits (Appendix E,

	p. 1, 4; Appendix F, p. 1, 4; Appendix I, p. 1, 2).

SECTION E: Research data			
All information provided by participants is considered research data for the purpose of this form. Any research data from which participants can be identified is known as personal data; any personal data which is sensitive is considered special category data. Management of personal data, either directly or via a third party, must comply with the requirements of the UK General Data Protection Regulation (UK GDPR) and the Data Protection Act 2018, as set out in the University's Guidance on Data Protection and Research. In answering the questions below, please also consider the points raised in the Data Protection Checklist and Data Protection Screening Assessment and whether, for higher-risk data processing, a separate Data Protection Impact Assessment may also be required for the research. Advice on research data management and security is available from Research Data Oxford and your local IT department. Advice on data protection is available from the Information Compliance team. For guidance on conducting internet-mediated research, refer to CUREC's Best Practice Guidance 06: Internet-mediated research.			
1. What data will be collected? (Indicate with an '**X**')			
Screening documents	☐	Task results (e.g. questionnaires, diaries) [Questionnaire for parents/guardians; pre- and post-test task results on all three measures for the children]	☒
Consent records (e.g., written consent forms, audio-recorded consent, assent forms)	☒	IP addresses (refer to Best Practice Guidance 09: Data collection, protection and management for guidance)	☐

[For parent/guardian participation by completing questionnaire]			
Contact details for the purpose of this research only	☐	Field notes	☐
Contact details for future use (guidance)	☐	Photographs	☐
Opt-out forms [For children's participation]	☒	Information about the health of the participant (including mental health)	☐
Audio recordings [Verbal responses on the emotion understanding task and responses on the expressive narrative language task]	☒	Previously collected (secondary) data	☐
Video recordings	☐	Data already in the public domain. Specify the source of the data:	☐
Transcript of audio/ video recordings [Transcript of audio recordings taken on pre- and post- tests for emotion understanding task and expressive narrative language task]	☒	Other, please specify:	☐

2. During the course of the research, where will **each type of** research data be stored?	**Opt-out forms for children's participation** will be paper records, and following guidance from Approved Procedure 25, these forms will be returned to the kindergarten teachers, with the teachers only providing the researcher with a paper record of a list of names of students that may be included in the study. The kindergarten will ensure storing the opt-out forms safely, and will be able to decide how long to retain the forms for. The kindergarten headteachers are made aware of this on their information sheets (Appendix D, p. 2). *The list with the student names who may be included in the study,* after handed from the teacher to the student researcher, will be placed in the student researcher's folder and will be transferred directly, with no transition stops, to the student researcher's office, where they will be placed in a locked filing cabinet. After the researcher has created a pseudonymisation via linkage list (a list of the names of participants against their unique participant number) which will be retained in the student researcher's university Nexus365 account, this paper with the children's names will be shredded. **Opt-in forms for parent/guardian participation** will be in paper format to begin with. Those records will be collected in the kindergartens from the kindergarten teachers or from the parents/guardians themselves, at which moment they will be placed in the student researcher's folder and will be transferred to the student researcher's office, with extra care that the student researcher does not stop in any other location but goes directly to the office. When arriving at the office, the student researcher will scan these consent forms, upload them in their university Nexus365 account, and the paper records will be shredded immediately. The researcher will create a pseudonymisation via linkage list which will be retained in the student researcher's university Nexus365 account for the parent participants too. Children's performance on the translated, adapted and extended version of **Fikiria Hisia Test** (please refer to Appendix B) is collected

	and stored in two ways depending on whether the task requires verbal or non-verbal responses. - For the **verbal responses** on this test, a Password protected voice recorder is used to audio record the child participants' answers. To ensure anonymity, the audio recording on the Password protected voice recorder for each task will start by the student researcher saying aloud the child's unique participant number and the name of the task, and the name of the child will not be mentioned anywhere on the recording. Directly after leaving kindergartens on the days the Password protected voice recorder is used, the student researcher will transfer the recordings in the student researcher's university Nexus365 account and the recordings will be immediately deleted from the Password protected voice recorder. After these audio recordings are transcribed, the transcript will be saved in the student researcher's university Nexus365 account, at which moment the audio recordings will be deleted. - For the **non-verbal responses** on this test, the child is required to point to pictures, and the student researcher records the responses on a paper. This paper will only have the child's unique participant number, with the name of the child not appearing anywhere in the paper. These papers will be scanned, and the scans will be saved on the student researcher's university Nexus365 account, at which point the papers will be shredded. **Children's performance on the vocabulary item of the IDELA assessment (item 15; please refer to Appendix B)** will be collected and stored in the same way as the responses on the non-verbal Fikiria Hisia Test items. **Children's performance on the items from Multilingual Assessment Instrument for Narratives (MAIN; please refer to Appendix B)** will be collected and stored in the same way as the responses on the verbal Fikiria Hisia Test items **Parents'/guardians' responses on the questionnaire (Please see Appendix B for example questions)** will be on a paper format and will be collected by the student researcher on kindergartens. These papers will be immediately placed on the student researcher's folder. The student researcher will ensure that whenever a questionnaire is returned, the student researcher goes directly from the kindergarten to the office, with no intermediate stops. In the student researcher's office, the student

	researcher will scan and upload the questionnaires to the student researcher's university Nexus365 account, and the paper questionnaires will be shredded.		
3. Who will have access to the research data during the project?	The student researcher and the PI will have access to the research data. Individuals will have a unique participant number, with a pseudonymisation via linkage list only being retained by the student researcher. The audio recordings will not include the children's names, and instead will only include participant numbers. Therefore it is unlikely that children are identifiable in the data. However, given concerns around identifiability of children's voices, only the student researcher will access the audio recordings and will destroy these as soon as fully anonymised transcription of the recordings is done.		
4. Please complete this section if your research involves the use of secondary (i.e. previously collected) data.	**Please indicated with an 'X'.**	**Yes**	**No**
	Are data access agreements in place for access to and use of this secondary data? (If so, please attach these.)	☐	☐
	Did the individuals agree that their data could be used for this purpose?	☐	☐
	Could anyone (including members of the research team) link the data back to an individual or individuals? If this is a possibility, please explain how the associated ethical issues will be addressed:	☐	☐
5. How do you intend to share the research data at the	Depositing in a specialist data centre or archive	☐	
	Submitting to a journal to support a publication	☒	

end of the project?	Depositing in an institutional repository	☐
	Dissemination via a project or institutional website	☐
	No plans to share the data	☐
	Other (please specify):	☐
6. How do you intend to report and disseminate the results of the research? (Indicate with an 'X')	Thesis publication	☒
	Publication in a peer reviewed journal	☒
	Publicly available report	☐
	Conference presentation	☒
	Publication on a website	☐
	Pre-registration	☐
	Report to a research funder	☐
	Providing participants with a lay summary of the results	☒
	Submission for academic assessment	☒
	Other (please specify):	☐

7. Explain what will happen to the data at the end of the research project.
This question must be answered for each type of data, including completed consent forms.

The list of participant names against numbers (pseudonymisation via a linkage list) will be destroyed following the completion of the study.

Following guidance from Approved Procedure 25, it is up to the kindergarten to determine when they will destroy the opt-out consent forms for children's participation. Head teachers will be made aware of this in their participation sheets (Appendix D, p. 2).

The non-identifiable data of the study, together with the parents'/guardians' opt-in consent forms for their own participation, will be stored safely for three years after the completion of the study on the PI's university Nexus365 account.

Note - items that will be destroyed before end of project: Audio recordings of the children (recording children's responses on the verbal items of the translated, adapted and extended version of the Fikiria Hisia Test and on the MAIN assessment) will only be retained in the student researcher's university Nexus365 account until this data is transcribed and fully anonymised by the researcher. Following these processes, the data will be destroyed.

The list of children's names who have not opted-out of the study, which will be provided by the teachers to the student researchers, will be shredded as soon as the pseudonymisation via linkage list is created.

SECTION F: Protection of research participants and their personal data		
1. How identifiable will the participants be from the **research outputs**? (Indicate with an 'X')	Directly identifiable from the information included	☐
	Pseudonymised/ indirectly identifiable	☐
	Not identifiable – data is anonymous	☒
	Other, please specify:	☐
2. To what extent will the **data** be de-identified? How identifiable will any individuals be from the research data? Describe any measures you will take towards	**Children's audio-recordings:** The audio recordings will not mention the name of the child but only their unique participant number in the beginning of the recording. Therefore, the children are unlikely to be identifiable from the recordings. Whilst some arguments could be made that children's voice could be identifiable, the step taken is that the recordings will only be accessed by the student researcher and will be deleted as soon as they are transcribed. The transcript will only include children's unique participant number and no information about the children will be identifiable. All	

assuring confidentiality, potential risks to confidentiality.	information will be reported anonymously in the outputs, and the participants will not be identifiable. **Children's performance in the non-verbal tasks and verbal tasks not involving audio-recordings:** The researcher will note children's responses by a paper and pencil, and in the paper only children's unique participant number will be written and their name will not appear. Also, all information of performance on these tasks will be reported anonymously in the outputs with the participants not being identifiable. **Parents'/guardians' questionnaire responses:** The parent/guardian questionnaires will only contain their participant number and no names. The information of parents' responses will be reported anonymously in the outputs with the participants not being identifiable.
3. How will you ensure that third parties (e.g., interpreters and transcribers) are aware of and adhere to the measures described in this form?	No third parties will be involved in this study.

SECTION G: Risks and benefits of the research
1. Will the research involve topics that could be considered sensitive? If so: a. Please provide more detail or supporting information (such as the interview questions) to show the range of questions; b. Explain what steps will be taken to reduce risk of distress; c. Consider seeking advice from within your Department or from the ethics committee including whether the application might benefit from additional ethics review (e.g., via a CUREC 2 application).

There is also a small but undeniable potential for negative emotions to be evoked in the child participants when completing the Fikiria Hisia Test, given that this test requires the child to identify a time when they felt happy, angry, sad or scared (refer to Appendix B for more information on this test). The same is true during the intervention in which the children explore the emotional consequences of events of episodes narrated and daily life episodes (please see details about the conversational programme on Appendix A). However, this potential is also present in any classroom where children and teachers converse about emotions or consequences of events, since these topics are already part of the Albanian curriculum. Therefore, this study is not introducing any new risk or sensitivity of topics to the children. Nonetheless, if there is any indication of any negative emotions evoked in the child, the student researcher will immediately seek advice from the Principal Investigator on the necessary next steps. This will, a) involve informing the head teacher, and b) considering the head teachers' advice on who should be informed next as per the local protocols in the school system.

2. Describe any additional burden or risks to the participants and the steps you will take to address these.

There will be no risk for the participants. Children will be taken out of other activities to complete the pre- and post- tests as well as the lesson activities delivered by the student researcher, however, the student researcher will do their best to arrange the activities in consultations with the teachers to ensure that children do not miss out on important classroom activities.

It is unlikely that there will be any significant burden for the parent/guardian participants given that their questionnaire will only take a few minutes to complete.

3. Describe any physical or psychological risks to the researcher(s) (including local fieldworkers or research assistants) and the steps you will take to address these.

Psychological risks for the researcher are assessed as being low to nil. While conducting the data collection part of the research will be time intensive and may be tiring for the student researcher, the student researcher will have access to college welfare, advise from the college advisor, and will also have the support of the PI, discussions with whom will be realistic and will address any issues present in the field.

4. Describe any benefits of the research, both to participants and to others.

While benefits of the conversational intervention are expected for the intervention group it is expected that the active control group would also benefit from the activities they

will engage in, such as the shared book reading, language games, and the attention of the student researcher. This is because pervious research shows that shared book reading and language games are helpful for children in many domains, including receptive language skills and vocabulary. Furthermore, the active control group kindergartens will be offered all the materials used in the conversational programme after the completion of the study; and interested kindergarten teachers will be offered instruction on how to deliver the programme if they wish.

The wider Albanian community is also expected to benefit from the findings of this study. It is common that programmes, trainings or interventions developed in the Western world are implemented in Albania without further local research. This could be problematic given how different programmes could have different outcomes and/or consequences in different contexts. Thus, considering whether a conversational programme specifically benefits the emotion understanding development of Albanian kindergarteners, would be helpful in better informing the policy-makers on the programmes they decide to implement. Furthermore, if positive findings of the programme delivered in this study are found, this programme could be a helpful addition to the Albanian kindergarten classes.

5. Give details of any other ethical issues or relevant information.

None.

SECTION H: Professional guidelines

Please indicate with an '**X**' at least one set of professional guidelines you will follow.

Research specialism/ methodology	**Association and guidance**	
Anthropology	Association of Social Anthropologists of the UK	☐
Computer Science	ACM Code of Ethics and Professional Conduct	☐

Criminology	British Society of Criminology Statement of Ethics	☐
Education	British Educational Research Association Ethical Guidelines for Educational Research	☒
Geography	American Association of Geographers Statement on Professional Ethics	☐
History	Oral History Society of the UK Ethical Guidelines	☐
Internet-mediated research	Association of Internet Researchers Ethical Guidelines British Psychological Society: Ethics Guidelines for internet-mediated research Association for Computing Machinery Code of Ethics and Professional Conduct	☐
Management	Academy of Management Code of Ethics	☐
Political Science	American Political Science Association (APSA) Guide to Professional Ethics in Political Science	☐
Politics	Political Studies Association. Guidelines for Good Professional Conduct	☐
Psychology	British Psychological Society Code of Ethics and Conduct	☒
Social research	Social Research Association: Ethical Guidelines	☐
Socio-legal studies	Socio-Legal Studies Association: Statement of Principles of Ethical Research Practice	☐
Sociology	The British Sociological Association: Statement of Ethical Practice	☐
Visual research	ESRC National Centre for Research Methods Review Paper: Visual Ethics: Ethical Issues in Visual Research	☐

Other professional guidelines		☐

SECTION I: Endorsements and signatures
Please ensure this form is endorsed by the Principal Investigator (or student's supervisor), the Head of Department (or nominee) and, if student research, by the student themselves. **The SSH IDREC Secretariat accepts either option below. If you have a DREC, check which signature option it prefers.** • **Option 1: direct email endorsements** Each of the signatories should submit an email from a University of Oxford email address, indicating their acceptance of the responsibilities listed below. • **Option 2: signatures** Please scan the signed form and email it to us as a PDF. Pasted images of signatures cannot be accepted.
Endorsement by the Principal Investigator/ student supervisor and student, if applicable
I/ we the researchers understand my/ our responsibilities as Principal Investigator (and student, if applicable) as outlined in the guidance on the CUREC website. I/ we declare that the answers above accurately describe the research as presently designed, and that the ethics committee will be informed of any changes to the project which affect the answers to this form. I/ we will inform the relevant IDREC if the Principal Investigator changes.

Name of Principal Investigator	XXX
Principal Investigator's signature	Instead of a signature, endorsement may be provided by an email confirming the points above.
Date	22-3-22
Name of student (if applicable)	

Student's signature	
Date	17/03/2022

Departmental endorsement – from the Head of Department or nominee (Another senior member of the department may sign where the head of department is the Principal Investigator, or where the Head of Department has appointed a nominee. Example nominees include Deputy Head of Department, Director of Research, or Director of Graduate/ Undergraduate Studies.)	
On the basis of the information available to me, I confirm that: • I am aware of the research proposed and have read this application; • To the best of my knowledge, the proposed design and scientific methodology do not raise ethical concerns; • I support this research in principle, subject to ethical and other necessary reviews.	
Signature	Instead of a signature, endorsement may be provided by an email confirming the points above.
Name	
Role	
Date	

9.1.2 CUREC Approval Letter

Parental belief and conversing about emotions: Assessing the effectiveness of a conversational programme on the emotional development of Albanian kindergartners
CIA-22HT-054

The above application has been considered on behalf of the Departmental Research Ethics Committee (DREC) in accordance with the procedures laid down by the University for ethical approval of all research involving human participants.

Our prior discussion on this was very useful – an impressive team as ever, and project, vastly experienced, and a model of genuine care in relation to research ethics.

I am pleased to inform you, then, that, on the basis of the information provided to DREC, the proposed research has been judged as meeting appropriate ethical standards, and accordingly, approval has been granted.

Please continue to follow all current guidance issued by CUREC during the pandemic, notably COVID-19: CUREC guidance on research involving human participants, https://researchsupport.admin.ox.ac.uk/governance/ethics/coronavirus

If relevant please also check the CUREC website for their best practice research guides, these can be very useful in refining the writing up of ethical considerations in your research – see https://researchsupport.admin.ox.ac.uk/governance/ethics/resources/bpg

Good luck with your research study,

Keep well and safe,

Yours sincerely,

All good wishes,

Liam

Chair, DREC

Liam Francis Gearon, PhD, FHEA, FRSA, Docent

Senior Research Fellow, Harris Manchester College, University of Oxford
Associate Professor, Department of Education, University of Oxford
Conjoint Full Professor, Newcastle University, Australia
Docent, University of Helsinki, Finland
Extraordinary Professor, North-West University, South Africa
Visiting Professor, Irish Institute for Catholic Studies, MIC, Limerick, Ireland
Honorary Senior Research Fellow, School of Education, University of Birmingha

9.1.3 Information Letter for Municipality of Tirana and the Directorate of Nurseries and Kindergartens

The Sector of Enhancing Capacities, Directorate of Training and Development

Municipality of Tirana

[Date]

Stories, Conversations and Emotion Understanding

Ethics Approval Reference: CIA-22HT-054

Greetings,

I hope you are well.

I am [name] a MSc Education (Child Development & Education) student at the University of Oxford, supervised by Dr XXX, Professor of Psychology and Education at the University of Oxford. I am writing to enquire about conducting some research in Tirana's kindergartens during this academic year. In this study, *"Stories, Conversations and Emotion Understanding",* we will explore (i) the effectiveness on developing children's emotion understanding through a programme involving conversations about emotions in the Albanian context; and (ii) different parental beliefs about day-to-day tricky situations.

The research will be with four- and five-year-old children (the second group in kindergarten) and their parents. The kindergartens will be randomly assigned to be part of one of the two groups and details of what will be offered to each group is described below. This study will use children's books. These books will be used in two different ways depending on the group in which the kindergartens will be assigned. For both groups I will deliver nine lessons to sub-groups of five to six children. Every lesson will last around 25 minutes.

Group one will receive the programme with conversations about emotions. The lessons in this group will consist of introduction of the topic of the day, a children's book read-a-loud, conversations and discussions about the emotions of the book's characters and emotions in daily life, and session wrap-up.

Group two will receive a language programme. The lessons for this group will consist of introduction of the topic of the day, a children's book read-a-loud (these books will be the same as those for the other group), language games, and session wrap-up. After this study ends, the kindergartens in this group will be given access to all materials that I will use with the other group, and I am willing to offer training of the programme to any interested kindergarten teachers from this group.

I will assess the children of both groups individually for their emotion understanding and expressive language before and after I deliver them all the lesson activities. I will offer the children stickers upon their completion of these assessments (and even if they refuse to participate) as a way to thank them. The focus of this research will be, on average, student understanding and comparisons of the emotion development of the children in the two groups. Also, it should be noted that **the lesson activities in our research programme are recommended in the *Reforma Kurrikulare Ne Arsimin Parashkollor,*** and the aim of our study (to deliver lessons that stimulate children's emotion development) aligns with the aims of the national curriculum.

During the course of this study, the parents/guardians of participating children are invited to complete a questionnaire regarding parental beliefs about how day-to-day tricky situations, like children not wanting to eat and being naughty with neighbours things, are resolved.

This research will contribute to assessing the effectiveness on developing children's understanding of emotions of a programme involving conversations about emotions in the Albanian context. If this programme is found effective, it can be proposed as a useful programme to be further investigated as part of the national kindergarten curriculum. The research will also contribute in expanding the Albanian and global field of socio-emotional development and parental beliefs.

I wish to have access to kindergartens to assess the children and deliver the lessons over a period of around seven weeks, beginning in early May. While assessing the children, I will audio-record some of the children's answers using a password-protected voice recorder, and note down on paper their other answers . Neither the audio-recordings using a voice recorder, nor the paper notes will contain the children's names. Instead, they will only contain a participant number which will be assigned to each participating child and parent/guardian. The audio-recordings will only be heard and transcribed by me. These recordings will be deleted as soon as they are transcribed, and until this process is completed, they will be kept in secure conditions in a password-protected and encrypted file.

Lists of participant names against their participant number will also be kept in secure conditions in password-protected and encrypted files, and will be destroyed upon completion of this research (on 12 August 2022). Other research data will be stored for 3 years after publication or public release of the work of the research. The researcher and supervisor will have access to the research data. Responsible members of the University of Oxford may be given access to data for monitoring and/or audit of the research. All participants, including the children, kindergartens and parents, will be made anonymous in all research reports, including any academic publications. If the research is to be published in academic publications, the non-identifiable research data may be submitted to a journal to support a publication. A summary of our findings will be given to the kindergarten and will be available to interested families.

Oxford University has strict ethical procedures on conducting ethical research with students, consistent with current British Educational Research Association guidelines. Before beginning the research, I will approach the kindergarten head-teachers to inform them about this study and to ask whether they would like their kindergartens to participate. In the kindergartens where head-teachers agree to participate, I will inform parents/guardians about the research and offer the parents/guardians the opportunity to refuse for their child to participate and to agree for their own participation if their child is in group one. Throughout the research, the children and parents/guardians will be able to refuse to participate at any time. Please find the letters that will be sent to the kindergartens' headteachers and the parents/guardians attached.

Opt-out forms for children's participation will be retained by the kindergarten for the duration of the study, and for as long as the kindergarten determines appropriate after research activities have concluded at the kindergarten. Parent/guardian consent forms for their own participation will be retained in secure conditions in a password-protected and encrypted file by the researchers for 3 years after the conclusion of this study.

For me to be able to implement this study, I would really appreciate your help with the following requests:

1. Agreement for me to conduct this study.
2. A database with the list of Tirana's kindergartens, number of the children on these kindergartens who are in the second group (four- and five-year old), and contact details of kindergarten's head-teachers
3. A suggested method to approach the head-teachers (e.g., by e-mail or in-person).

We would be grateful to receive permission to conduct the research. We would also be grateful if you could send me an official document answering the above requests to the address *xxxx*.

If you have any questions regarding any information in this letter or any extra information that you wish to know, please contact me using this e-mail address: xxxx

Thank you for your time and attention.

Respectfully,

xxxx

Note: This form is back translated from Albanian. The Municipality of Tirana will receive the Albanian version

9.1.4 Information Letter for Parents

Information Sheet A

Stories, Conversations & Emotion Understanding

INFORMATION SHEET FOR PARENTS / GUARDIANS

for their child's participation

Ethics Approval Reference: CIA-22HT-054

In partnership with researchers at the University of Oxford, your child's kindergarten has agreed to take part in a study investigating the effectiveness of developing children's emotion understanding through an emotion development programme in the Albanian context. We would like to invite your child to be part of this study. We very much hope you would like your child to take part, but before you decide, it is important that you understand why the study is being done and what it will involve.

What are we trying to find out?

This study is looking at how to further aid the emotion development of children, specifically focusing on emotion understanding. We know from research that emotion understanding, as part of emotional development, is linked to a range of children's outcomes, including their ability to create and maintain friendships, and even their academic success. This makes the development of emotion

understanding in children very important. Many emotion development programmes have been created and tested in other countries, mostly Western ones, and have been found effective in these countries. Based on child development theory and research we have come up with a programme for kindergarten children that includes book-reading activities and conversations about emotions. This project will help us to understand how effective this programme is in aiding children's emotion understanding development in Albania. If effective, this programme could serve as an example to be added to the kindergarten curriculum. The project will also help us understand different parental beliefs about day-to-day tricky situations in the Albanian context.

More information about the project can be obtained by contacting the researcher xxxx

Why has my child been invited to take part?

We are inviting your child to take part because they attending the second group of [insert school/institution name here] kindergarten. We are inviting all children in the second group of [insert school/institution name here] to take part.

Does my child have to take part?

No. You can ask questions about the study before deciding whether or not to allow your child to participate. If you do not opt-out of the study, you may withdraw your child and their data from the study at any time until [last date of data collection], without giving a reason and without penalty, by advising the researcher of this decision.

What will my child be asked to do?

To assess the effectiveness of the programme, we have randomly assigned the kindergartens who have agreed to participate into two group. Group one will receive a programme involving conversations about emotions. Group two will receive a programme involving language games. Both groups will engage in nine lessons, which will be delivered by the researcher, xxx, in sub-groups of five to six children. Each lesson will last approximately 25 minutes each. The researcher will work with your child's teacher to make sure these lessons do not conflict with important school activities.

I will assess the children of both groups individually for their emotion understanding and expressive language before and after I deliver them all the lesson activities. The assessment will take approximately 30 minutes each time. While assessing the children, I will audio-record some of the children's answers using a password-protected voice recorder, and note down on a paper their other answers. Neither the audio-recordings using a voice recorder nor the paper notes will contain the children's names. Instead, they will only contain a participant number which will be assigned to each participating child and parent/guardian. The audio-recordings will only be heard and transcribed by me. These recordings will be deleted as soon as they are transcribed, and until this process is completed they will be kept in secure conditions and will be password-protected. The scores of the individual children will not be shared with teachers and parents/guardians. The researcher will describe these activities as 'games' to the children, and will offer the children stickers as a way to thank them for completing the assessments.

The children will be randomly assigned to one of the two groups. The lessons will have the following structure: Introduction of the topic of the day, children's book read-a-loud, conversations with the children about the emotions of the book's characters and emotions in daily life OR language games, and session wrap-up. Please note that all the activities are already part of the kindergarten curriculum, as is the emotion development and language development of the children.

Overall, the research activities (including assessing children and delivering the lessons) are expected to last approximately seven weeks, starting in May 2022. Before assessing the children for the first time, the researcher will give very simple oral information about the study to the child and ask them if they want to participate.

What are the advantages / disadvantages of my child taking part?

Your child may benefit from further developing their emotional and linguistic skills. There are no anticipated disadvantages to taking part.

What happens to the data provided? [4]

The information you or your child provide during the study is the **research data**. Any research data from which you or your child can be identified, that includes audio recordings, a list of children's names against their participant numbers, is known as **personal data**.

Personal / sensitive data will be stored securely in a password protected, encrypted file, that will only be used by the research team. The audio recordings will be destroyed as soon as they are transcribed by the researcher. The list of children's names against their participant numbers will be destroyed when the study has ended (on 12 August 2022).

Opt-out forms for children's participation will be retained by the kindergarten for the duration of the study, and for as long as the kindergarten determines appropriate after research activities have concluded at the kindergarten.

Other research data will be stored for 3 years after publication or public release of the work of the research. The researcher and supervisor will have access to the research data. Responsible members of the University of Oxford may be given access to data for monitoring and/or audit of the research. If the research is to be published in academic publications, the non-identifiable research data may be submitted to a journal to support a publication.

A summary of our findings will be given to the kindergarten and will be available to interested families.

Will the research be published?

The research may be published in academic publications. The University of Oxford is committed to the dissemination of its research for the benefit of society and the economy and, in support of this commitment, has established an online archive of research materials. This archive includes digital copies of student theses successfully submitted as part of a University of Oxford postgraduate degree programme. Holding the archive online gives easy access for researchers to the full text of freely available theses, thereby increasing the likely impact and use of that research.

[4] Please refer to CUREC's Best Practice Guidance on Data Collection and Management (BPG 09)

The research will be written up as a student's thesis. On successful submission of the thesis, it may be deposited both in print and online in the University archives to facilitate its use in future research. If so, the thesis will be openly accessible.

Who is conducting this research?

The research project is organised by xxx of the University of Oxford, who is a MSc Education (Child Development & Education) student, and is supervised by Dr XXX, who is a Professor of Psychology and Education at the University of Oxford. This study has been reviewed by, and received ethics clearance through, the University of Oxford's Central University Research Ethics Committee, [insert CUREC reference number].

What if there is a problem?

If you have a concern about any aspect of this study, please contact the researcher, xxx, at the following e-mail address: xxx. I will acknowledge your concern within 10 working days and give you an indication of how it will be dealt with. If you remain unhappy or wish to make a formal complaint, please contact the Chair of the Research Ethics Committee at the University of Oxford who will seek to resolve the matter as soon as possible:

Chair, **Social Sciences & Humanities Inter-Divisional Research Ethics Committee**; Email: ethics@socsci.ox.ac.uk; Address: Research Services, University of Oxford, Wellington Square, Oxford OX1 2JD

Please note that you can contact us either in Albanian or in English.

Data Protection

The University of Oxford is the data controller with respect to your child's personal data and, as such, will determine how your child's personal data is used in the study.

The University will process your child's personal data for the purpose of the research outlined above. Research is a task that we perform in the public interest.

Further information about your rights with respect to your child's personal data is available from https://compliance.web.ox.ac.uk/individual-rights.

What should I do next?

Please fill in the enclosed form named *" **Form A**, Stories, Conversations and Emotion Understanding **CONSENT FORM**"* and return it to your child's class teacher if you would like your child to take part in this study. Please remember that you may withdraw your child at any time, without penalty and without giving a reason, by notifying the researcher and/or the teacher.

Please also read Information Sheet B for your own participation by completing a questionnaire, and if you would like complete the questionnaire please complete Form B.

If you would like to discuss the research with someone beforehand (or if you have questions afterwards), please contact:

xxx
Department of Education
University of Oxford
15 Norham Gardens
Oxford, OX2 6PY

Note: This form is back translated from Albanian. The parents/guardians will receive the Albanian version

9.1.5 Consent Form

Form A

CONSENT FORM

University of Oxford Ethical Approval Reference: CIA-22HT-054

If you wish for your child to take part in the research study 'Stories, Conversations and Emotion Comprehension, please complete the consent form below and return that to the kindergarten teacher.

I _____

☐ **agree**

☐ **do not agree**

for my child to take part in the study 'Stories, Conversations and Emotion Comprehension'.

Child's Name: _____

The Parent/Guardian Name: _____

Signature: _____

Date: _____

Note: **This form is back-translated from Albanian.**

9.1.6 Oral Information for Children

Stories, Conversations and Emotion Understanding

ORAL INFORMATION & ASSENT FOR CHILDREN

TO BE READ TO THE CHILDREN BY RESEARCHER BEFORE PRE-TEST

For all children say: My name is XXX and I study at the University of Oxford. I am trying to find out answers to some questions about how children aged 4 and 5 can understand emotions and language better. I would like you to help me find out these answers because you are 4/5 years old.

Your parent/guardian has said it is OK for you to help me. But if you don't want to, you do not have to do it, I will not be upset. You can ask me any questions before you choose whether to help me or not. And if you change your mind we can stop. You do not have to say why. No one will be upset with you.

I will now tell you what we will do together.

All you have to do now is play some games with me. From time to time, I will record your voice using this [show the child the voice recorder]. Only I will hear what I have recorded.

If child is in intervention group say: On other days I will read you and some of your friends some children's books and talk with you about them and about emotions.

If child is in control group say: On other days I will read you and some of your friends some children's books and play some other games with you.

For all children say: On another meeting, we will play the games we are playing today again.

If you feel bad or upset at any point you can always tell me and we can stop. You can go back to class and someone, such as your teacher, will make you feel better. Also, if you will not be happy about something that will happen here and you want to tell someone, you can always tell your

teacher or your parent/guardian.

Do you want to ask me any questions?

If child asks a question: Did you understand my answer? Would you want me to answer again?

Do you have any other question?

After answering all questions: Do you understand that it is okay to stop at any time?

[**If child says no, say**: It is okay to stop at any time. No one will be upset with you for stopping. Okay?]

Then say: Is it okay for me to record your voice using this?

Do you want to play with me now? Are you ready?

[If child says no to any of these two, return child to class; If child says yes, begin tests]

Note: This script is back translated from Albanian

9.2 Appendix B

9.2.1 Lesson Plan Emotion Comprehension Intervention

Unit: Revision of Happiness and Sadness	**Lesson No.:** 8
Lesson Title: External Causes of Happiness & Sadness	**Date:**
Standard(s) Alignment: Emotion Comprehension	**Duration:** 20 min

Learning Objective(s). *Outline the concept, knowledge, skill, or application students can demonstrate upon lesson completion. Example: "I can write whole numbers up to one million in base-ten numerals, expanded, and word form."*

[Enter I can/We will statement(s) here]

- I can understand that a person feels happiness and sadness based on different situations/events. For example, I can understand that a person can feel happy when they get/buy/do something that they like/love. Also, I can understand that a person can feel sad, for example, when the they accidentally lose/break something they had and liked, when they have made a mistake, or when others tease them.
- I can express and understand some situations that make me (and/or my friends/family and others) feel happy and other situations that make me (and/or my friends/family and others) sad.

Relationship to Unit Structure. *How does this lesson support the unit goals? How does this lesson build on the previous lesson in this instructional sequence? How does this lesson support the next lesson in this instructional sequence?*

This is the second out of three revision lessons for the emotion comprehension group. We are now moving from reviewing the basics (recognition of happiness and sadness from facial expressions and emotion terms), to now reviewing external causes (e.g., events) of happiness and sadness. While this is a goal in itself, it also serves as a foundation before reviewing how reminders can cause happiness/sadness. This corresponds a revision of the second lesson of the happiness unit (second lesson overall) and the second lesson of the sadness unit (fifth lesson overall). Since this is a review, the discussions will have more conversations involving the children with less scaffolding from the researcher and less explanations from the researcher as most of the lesson will be led by the researcher asking questions/giving prompts for discussion rather than explaining, unless where misunderstandings are seen and explanations are needed.

Anticipated Student Misconceptions. *Consider what misconceptions and/or questions students may have about the content to be presented. How will you prepare to address these in your lesson?*

Since the same story as in the previous lesson will be read ('Who ate the ice cream?') children may be more able to understand the story/follow it. However, we will still repeat/recap the new vocabulary that children learned in the previous lesson, as it comes up, to ensure that they will be able to understand and follow the story.

New vocabulary to be reviewed (to aid story understanding): bregore (small hill); perlau (ate quickly); gemusha (shrub); qyp (a kind of pottery)

Instructional Strategies:

☐ Lecture ☐ Demonstration

☐ Video ☐ Direct Experience

☐ Role Play ☐ Group Discussion

☐ Other: Story reading (Who ate the ice cream?)

Instructional Materials:

- **'Who ate the ice cream?' story. Author: Tasim Gjokutaj**

Other Considerations. *How will you support students with diverse learning, cultural, and/or linguistic needs? How will you manage behavioral challenges/task refusal? What will you do if a student needs to use the restroom? How will you get students to/from your lesson? Where will your lesson take place? How will the children be seated?*

The researcher will walk over holding hands with the children from their classroom to the classroom where the session will be held.

The researcher will try to involve everyone in the lesson and make it as engaging as possible. They will also try to not let the lesson be interrupted by children telling their own stories (will tell them they are very interested in these so they will discuss them after the lesson). If a child really refuses to do the tasks/listen even after being kindly asked to do so, they will be allowed to go to their classroom. *The children will be seated in a semi-circle in front of the researcher.* *The researcher will follow the kindergarten rules for use of the restroom.*			
[Minutes]	**Procedure:**	**Researcher will:**	**Students will:**
1 minutes	Anticipatory Set: *How will you initially engage your students, introduce them to the lesson/content, activate prior knowledge, etc.? Will you have a Do Now?*	(a) Ask the children if they remember the story read in the previous lesson and if they liked it. Say that we will read this story again focusing on a different thing this time, what caused the emotions (happiness & sadness) that we recognised in the previous lesson from the pictures (why and when these emotions are felt from the characters in the story). Say that then we will discuss again why and when we	(a) Listen attentively to the topic intro.

		ourselves feel happy and sad.	
6 minutes	Activity 1: Story Reading	a) Tell children that we will now read the story and tell them to try to attend to and engage with when and why the bear and his mother feel happy and sad in each part of the story. b) Read 'Who ate the ice cream?' story, and ask children about the new vocabulary that they learned in the previous lesson as it comes up. Explain the vocabulary they do not remember.	a) Listen to the story paying extra attention to what causes the bear and his mother to feel happy and sad in each part of the story. b) Answer the vocabulary questions that will be asked whilst reading the story (Raising their hand to be called to give an answer – The researcher will select the child to answer in such a way to ensure

			engagement of all children).
6 minutes	Activity 2: Discussing external causes of happiness and sadness for the story characters	Ask: a) How does the bear feel when he buys ice cream for himself and for his mother? b) Re-read the small part where the others tell the bear well done for taking care of your mother too. Ask: how might the bear feel at this moment and why? c) How does the bear feel when he realizes that his mother is going to come at home late because she is at work? d) How does the sun feel happy looking at the bear standing at the window and why?	Contribute to the discussion by answering the questions and listening and respecting other children's answers. The researcher will try to engage all children in the discussion.

		e) How does the bear feel in his dream and why? f) How does the bear feel when his mother comes home and he tells her he will give her the big ice cream? g) Why does the mother feel happy regardless not getting the ice cream? h) How does the bear feel when he realizes he does not have any ice cream to give to his mother? i) How does the bear feel when he cannot find out who ate the ice cream he bought to surprise his mother? (Seek usage of all the terms for happiness 'I gezuar', 'I	

		kenaqur', 'I lumtur' and sadness 'I merziur' and 'I trishtuar' to mean sad in this discussion)	
5 minutes	Activity 3: Discussing external causes of sadness for the children themselves in daily life	- Ask children to discuss with one another what makes them feel happy. Encourage the children to compare their answers. - Ask children to discuss with one another what makes them feel sad. Encourage the children to compare their answers.	Contribute to the discussion by answering the question and listening and respecting other children's answers.
2 minutes	Closure/Assessment: *How will you wrap up the lesson? Check for understanding/retention? Exit ticket?*	Say: Today we learned that some different situations/events/things can make us feel happy and others can make us feel sad. For example, we learned that _____ [use an example children	Listen attentively to the wrap up and get ready to return to class.

		gave] makes all/most of us feel happy. On the other hand, we learned that _____ [use an example children gave] makes all/most of us feel sad.	

9.2.2 Lesson Plan for Morphology Intervention

Unit: Revision - Derivational Morphology	**Lesson No.:** 8
Lesson Title: Suffixes (+ i/e before the word) to create adjectives and prefixes 'nen' and 'mbi', to indicate under/below and over/above, respectively	**Date:**
Standard(s) Alignment: Language Development	**Duration:** 20 min

Learning Objective(s). *Outline the concept, knowledge, skill, or application students can demonstrate upon lesson completion. Example: "I can write whole numbers up to one million in base-ten numerals, expanded, and word form."*

[Enter I can/We will statement(s) here]

- I can add 'ur', 'or(e)/ror(e)', 'shme/shem' to the ends of some words (and in front of some of these add 'i/e') to turn these words into adjectives [all of these are singular. We will not go into plural in these lessons as we are not focusing on inflectional morphology]
- I can understand that adding 'nen' in the beginning of some words indicates below/under _____ [something] (receptive vocabulary) and I can also from and say these words myself (expressive vocabulary). E.g., **nen**toke [underground]; **nen**kalim [passing route below the earth surface]; **nen**detese [submarine - travelling 'below/under' the sea surface]; **nen**drejtor [the position below that of the director].
- I can understand that adding 'mbi' in the beginning of some words indicated above/over _____ [something] (receptive vocabulary) and I can also form and say these words myself. E.g., **mbi**tokesor [overground] means over the ground; **mbi**kalim [overpass] means a passing route over the ground; **mbi**vendos means to put something over.

Relationship to Unit Structure. *How does this lesson support the unit goals? How does this lesson build on the previous lesson in this instructional sequence? How does this lesson support the next lesson in this instructional sequence?*

This lesson is part of the revision lessons relating to adding suffixes and prefixes to create new words (derivational morphology). This is the second revision lesson, and it will focus on adding suffixes to some words to generate adjectives (+adding i/e before the word), and on adding 'nen' or 'mbi' before some words, to indicate that something is under or over, respectively. It will be followed by one other revision lesson focusing on creating opposites. Since this is a revision, the lesson will be more focused on children's discussions with less scaffolding from the researcher.

Anticipated Student Misconceptions. *Consider what misconceptions and/or questions students may have about the content to be presented. How will you prepare to address these in your lesson?*

Since the same story as in the previous lesson will be read ('Who ate the ice cream?') children may be more able to understand the story/follow it. However, we will still repeat/recap the new vocabulary that children learned in the previous lesson, as it comes up, to ensure that they will be able to understand and follow the story.

New vocabulary to be reviewed (to aid story understanding): bregore (small hill); perlau (ate quickly); gemusha (shrub); qyp (a kind of pottery).

Instructional Strategies:

☐ Lecture ☐ Demonstration

☐ Video ☐ Direct Experience

☐ Role Play ☐ Group Discussion

☐ Other: Story reading (chosen story: 'Who ate the ice cream?')

Instructional Materials:

- **'Who ate the ice cream?' story**
- **Paper + Colour for researcher**

Other Considerations. *How will you support students with diverse learning, cultural, and/or linguistic needs? How will you manage behavioral challenges/task refusal? What will you do if a student needs to use the restroom? How will you get students to/from your lesson? Where will your lesson take place? How will the children be seated?*

The researcher will walk over holding hands with the children from their classroom to the classroom where the session will be held.

The researcher will try to involve everyone in the lesson and make it as engaging as possible. They will also try to not let the lesson be interrupted by children telling their own stories (will tell them they are very interested in these so they will discuss them after the lesson). If a child really refuses to do the tasks/listen even after being kindly asked to do so, they will be allowed to go to their classroom.

The children will be seated in a semi-circle in front of the researcher.

The researcher will follow the kindergarten rules for use of the restroom.

[Minutes]	Procedure:	Researcher will:	Students will:
1 minutes	Anticipatory Set: *How will you initially engage your students, introduce them to the lesson/content, activate prior knowledge, etc.? Will you have a Do Now?*	Say: In todays lesson we will review how to create words that describe something by adding a few letters to ends of some words, and how to indicate below or above something by adding a few letters to ends of some words.	(a) Listen attentively and respectfully to the overview of the lesson and answer the questions.
6 minutes	Activity 1: Story Reading	Read 'Who ate the ice cream?' story, and ask children about the new vocabulary that they learned in the previous lesson in the meantime – re-explain any words that they	Listen to the story Answer the vocabulary questions that will be asked whilst reading the story (Raising their hand to be called to give an answer – The researcher will select the child to

		do not understand	answer in such a way to ensure engagement of all children)
7 minutes	Activity 2: a) Adding 'ur' to words to turn them into adjectives. b) Adding 'shem'/'shme' to words to turn them into adjectives c) : Adding 'ror(e)/or(e)' to nouns to turn them into adjectives	**a)** Start with the word from the book – 'I mbeshtet**ur**'. Ask children what they understand by it, and how it is formed/what is another word within the word that they understand – seek for an answer saying 'I mbeshtet + ur'. Write this down in a paper, clearly visually showing that we are adding the 'ur' letters to the end of the word 'mbeshtet', and we are adding 'i' before the word.	Attend to the discussion, by giving their own answers and actively listening to others.

		Then go to other examples, asking the children to turn these words into words that can be used to describe something (i.e., adjectives – but do not use this term as the children do not understand it). Other words that can be used as examples: i/e lodhur, i/e keputur, i/e kripur, i/e djegur. **b)** Start with a word that can be derived from the book – I kujdess**hem**. Ask children what they understand by it, and how it is formed/what is another word within the word	

		that they understand – seek for an answer saying 'I kujdes + shem'. Write this down in a paper, clearly visually showing that we are adding the 'shem' letters to the end of the word 'kujdes', and we are adding 'i' before the word. Say that if it was describing a girl bear, instead of a boy bear, it would be 'e kujdes**shme** → e kujdes + shme'. Then go to other examples, asking the children to turn these words into words that can be used to describe	

		something. Other words that can be used as examples: I shendritshem/e shendirtshme, I shendetshem/e shendetshme, I kuptueshem/e kuptueshme. **c)** Remind children that some words can be formed as _____ + **or(e)/ror(e)** to become words that describe something. Ask them to turn femije into a word to describe something being done by children, by using this rule [femijerore]. Write this down clearly on a paper to show this is 'femije' + 'rore'. Then ask children to do the same to other words and/or tell	

		them the adjective and they can say what word it comes from/what word they understand within it. Example words that can be used: ditor(e), dimeror(e), vjetor(e), bimor(e).	
5 minutes	Activity 3: i) Adding prefix 'nen' to some words to mean under/below _____ and ii) adding prefix 'mbi' to some words to mean over/above _____	a) Ask the children to raise their hand if the word that I am going to mention means above [siper], and to lower it down if the word that I am going to mention means below [poshte]. Start by saying 'nen'. Then say 'mbi'. b) Open the book 'who ate the ice cream' at page 8 and show	Attend to the discussion, by giving their own answers and actively listening to others.

		the picture to children. Ask the children if the street the bear is walking at is 'mbitokesore' or 'nentokesore' and how they know. Then show them a picture of an underground street and ask the same question. Write those words down on a paper making 'mbi + tokesore' and 'nen + tokesore' structures (writing firstly 'tokesore' and then adding 'mbi'/'nen'), and the meaning of 'mbi' and 'nen' clear. c) Ask children what a	

		passage (kalim) under the ground can be called (nenkalim). Then ask them how we can say with one word 'something that is put on top is something else' (mbivendosur).	
1 minute	Closure/Assessment : *How will you wrap up the lesson? Check for understanding/retention? Exit ticket?*	Recap by saying that today we reviewed that we can create words that describe things by adding 'ur', 'or(e)/ror(e)', 'shme/shem' to the ends of some words, and 'i/e' to the before some of these words to turn them into such words that we can use to describe something (i.e.,	(a) Listen to the recap. (b) Prepare to go to class

		adjectives – but do not use this term as the children might not understand it). We also reviewed that we can add 'nen' to beginnings of some words to indicate below/under _____, and 'mbi' to beginnings of some words to indicate above/over.	

9.3 Appendix C

9.3.1 FHT composite Correlations for Consideration of Covariates

The Tables below display the correlations between the change in FHT composite scores between pre-test and post-test (Time 2 – Time 1), and the theoretically-driven potential covariates. It can be noticed that the only significant correlation is found between the change in FHT composite scores between pre-test and post-test and the Pre-Test MAIN Narrative Structure scores. Therefore, we decided to only include this as a covariate in our analysis.

Correlation between FHT Composite (T2 – T1 change) and Pre-Test MAIN Narrative Structure

Correlations

		T1_MAIN_A_COMPOS	CHANGE_FHT_COMPOS_CHANGE
T1_MAIN_A_COMPOS	Pearson Correlation	1	-.276*
	Sig. (2-tailed)		.046
	N	56	53
CHANGE_FHT_COMPOS_CHANGE	Pearson Correlation	-.276*	1
	Sig. (2-tailed)	.046	
	N	53	53

*. Correlation is significant at the 0.05 level (2-tailed).

Correlation between FHT Composite (T2 – T1 change) and MAIN Narrative Structure (T2 – T1 change)

Correlations

		CHANGE_FHT_COMPOS_CHANGE	CHANGE_MAIN_A_COMPOS
CHANGE_FHT_COMPOS_CHANGE	Pearson Correlation	1	.008
	Sig. (2-tailed)		.955
	N	53	53
CHANGE_MAIN_A_COMPOS	Pearson Correlation	.008	1
	Sig. (2-tailed)	.955	
	N	53	53

Correlation between FHT Composite (T2 – T1 change) and Pre-Test Internal State Terms (IST) MAIN

Correlations

		CHANGE_FHT_COMPOS_CHANGE	t1_MAIN_C_COMPOS
CHANGE_FHT_COMPOS_CHANGE	Pearson Correlation	1	-.209
	Sig. (2-tailed)		.133
	N	53	53
t1_MAIN_C_COMPOS	Pearson Correlation	-.209	1
	Sig. (2-tailed)	.133	
	N	53	56

Correlation between FHT Composite (T2 – T1 change) and Internal State Terms (T2 – T1 Change) MAIN

Correlations

		CHANGE_FHT_COMPOS_CHANGE	CHANGE_MAIN_C_COMPOS
CHANGE_FHT_COMPOS_CHANGE	Pearson Correlation	1	.005
	Sig. (2-tailed)		.972
	N	53	53
CHANGE_MAIN_C_COMPOS	Pearson Correlation	.005	1
	Sig. (2-tailed)	.972	
	N	53	53

Correlation between FHT Composite (T2 – T1 change) and Absences (No. of sessions a child is absent)

Correlations

		CHANGE_FHT_COMPOS_CHANGE	Number of sessions a child was absent (Range 0-9)
CHANGE_FHT_COMPOS_CHANGE	Pearson Correlation	1	-.130
	Sig. (2-tailed)		.355
	N	53	53
Number of sessions a child was absent (Range 0-9)	Pearson Correlation	-.130	1
	Sig. (2-tailed)	.355	
	N	53	56

9.3.2 FHT Composite Anger and Fear Correlations for Consideration of Covariates

The Table below displays the correlation between the change in FHT anger and fear composite scores between pre-test and post-test (Time 2 – Time 1), and the Pre-Test MAIN Narrative Structure scores, which was correlated with the change in FHT overall composite scores between pre-test and post-test. This correlation is not significant and thus we did not include the Pre-Test MAIN Narrative Structure scores as a covariate for the FHT anger and fear analyses.

Correlation between FHT Composite Anger and Fear Items Only (T2 – T1 change) and Pre-Test MAIN Narrative Structure

Correlations

		CHANG_FHT_AngSc_Composite	T1_MAIN_A_COMPOS
CHANG_FHT_AngSc_Composite	Pearson Correlation	1	-.162
	Sig. (2-tailed)		.245
	N	53	53
T1_MAIN_A_COMPOS	Pearson Correlation	-.162	1
	Sig. (2-tailed)	.245	
	N	53	53

9.3.3 DCMT Composite Correlations for Consideration of Covariates

The Tables below displays the correlations between the change in Derivational and Compound Morphology Test scores between pre-test and post-test (Time 2 – Time 1), and the theoretically-driven covariates (number of child absences; MAIN story structure at pre-test, change in MAIN story structure between pre-test and post-test). None of these correlations was not significant and thus we did not include any of these as a covariates for any of the DCMT comparisons between the Emotion Comprehension and Morphology Groups.

Correlation between DCMT Composite (T2 – T1 change) and Absences (No. of sessions a child is absent)

Correlations

		Number of sessions a child was absent (Range 0-9)	CHANGE_MOR_COMPOSITE
Number of sessions a child was absent (Range 0-9)	Pearson Correlation	1	-.039
	Sig. (2-tailed)		.784
	N	53	53
CHANGE_MOR_COMPOSITE	Pearson Correlation	-.039	1
	Sig. (2-tailed)	.784	
	N	53	53

Correlation between DCMT Composite (T2 – T1 change) and Pre-Test MAIN Narrative Structure

Correlations

		CHANGE_MOR_COMPOSITE	T1_MAIN_A_COMPOS
CHANGE_MOR_COMPOSITE	Pearson Correlation	1	-.077
	Sig. (2-tailed)		.585
	N	53	53
T1_MAIN_A_COMPOS	Pearson Correlation	-.077	1
	Sig. (2-tailed)	.585	
	N	53	53

Correlation between DCMT Composite (T2 – T1 change) - MAIN Narrative Structure (T2 – T1 change)

Correlations

		CHANGE_MOR_COMPOSITE	CHANGE_MAIN_A_COMPOS
CHANGE_MOR_COMPOSITE	Pearson Correlation	1	.112
	Sig. (2-tailed)		.425
	N	53	53
CHANGE_MAIN_A_COMPOS	Pearson Correlation	.112	1
	Sig. (2-tailed)	.425	
	N	53	53