

Angeline Iskandar

**RELATIONS BETWEEN PERSONALITY  
TYPES AND SELF-PERCEIVED  
NONVERBAL IMMEDIACY OF FINNISH  
EARLY CHILDHOOD EDUCATION  
TEACHERS**

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# ABSTRACT

Angeline Iskandar: Relations Between Personality Types and Self-Perceived Nonverbal Immediacy of Finnish Early Childhood Education Teachers

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Nonverbal immediacy in education has gained growing attention during the past decades. Influencing factors of nonverbal immediacy have been studied and personality types is regarded as one of them. Yet, the relations between nonverbal immediacy and personality types has not been extensively studied.

This study seeks to find out about the relations between personality types, nonverbal immediacy, and nonverbal behaviour patterns of Finnish early childhood education teachers. The sample in this study was 30 early childhood education teachers from 9 daycare centers in Tampere. The quantitative research method was used and the data was collected through questionnaires. To analyse the data, statistical analysis was applied.

The findings suggest that personality types showed very weak correlation with nonverbal immediacy among the Finnish early childhood education teachers which might be affected by the reserved and noncontact culture in Finnish society. Similarly, personality types demonstrated no statistically significance effect on the nonverbal behaviour patterns of the teachers. Instead, both personality types showed comparable increase in all six nonverbal behaviour classifications that depicted the fluidity of both variables and the teachers' awareness of their job expectations. Thus, this study concluded that culture, education, and the awareness of job expectations are more influencing than personality types in relation to nonverbal immediacy which highlighted the importance of incorporating nonverbal immediacy training in teacher education. Lastly, the theoretical and practical implications are proposed.

Keywords: nonverbal immediacy, personality types, early childhood education, Finland.

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# CONTENTS

<b>1</b>	<b>INTRODUCTION .....</b>	<b>5</b>
1.1	Background and motivation .....	5
1.2	Purpose and significance of study .....	6
1.3	Research objectives and research questions .....	9
1.4	Thesis outline .....	9
<b>2</b>	<b>LITERATURE REVIEW .....</b>	<b>11</b>
2.1	Nonverbal immediacy .....	11
2.2	Personality types .....	20
2.3	Personality types in relation to nonverbal immediacy .....	23
2.4	Summary .....	26
<b>3</b>	<b>RESEARCH METHODOLOGY .....</b>	<b>27</b>
3.1	Methodological background .....	27
3.2	Participants .....	28
3.3	Instruments .....	31
3.3.1	<i>NERIS type explorer</i> .....	31
3.3.2	<i>Nonverbal immediacy scale-self report (NIS-S), original version</i> .....	32
3.3.3	<i>Nonverbal immediacy scale-self report (NIS-S), adapted version</i> .....	32
3.3.4	<i>Validity and reliability of instruments</i> .....	33
3.4	Data preparation procedures .....	33
3.5	Data analysis .....	34
3.6	Ethics .....	35
<b>4</b>	<b>FINDINGS .....</b>	<b>37</b>
4.1	Relations between Finnish ECE teachers' personality types and their self-perceived nonverbal immediacy .....	37
4.2	Nonverbal behaviour patterns of Finnish ECE teachers based on their personality types .....	39
4.3	Discussion .....	41
4.3.1	<i>Relations between Finnish ECE teachers' personality types and their self-perceived nonverbal immediacy</i> .....	41
4.3.2	<i>Nonverbal behaviour patterns of Finnish ECE teachers based on their personality types</i> .....	42
<b>5</b>	<b>CONCLUSION AND IMPLICATIONS .....</b>	<b>45</b>
5.1	Summary of the study .....	45
5.2	Limitations and suggestions for future research .....	46
5.3	Theoretical and practical implications .....	47
	<b>REFERENCES .....</b>	<b>49</b>
	<b>APPENDICES .....</b>	<b>59</b>
	Appendix 1: Research Permission Email for Daycare Centers .....	59
	Appendix 2: Short Research Proposal .....	60
	Appendix 3: Request Letter for Municipality Research Permission .....	62
	Appendix 4: Municipality Research Permission Approval Email .....	63
	Appendix 5: Participant Inform Consent .....	68
	Appendix 6: NERIS Type Explorer Personality Questionnaire .....	69
	Appendix 7: NIS-S Questionnaire Original Version .....	75

Appendix 8: NIS-S Questionnaire Adapted Version .....	76
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**TABLES**

<b>TABLE 1.</b>	<b>DEMOGRAPHIC INFORMATION OF THE PARTICIPANTS.....</b>	<b>30</b>
<b>TABLE 2.</b>	<b>DESCRIPTIVE STATISTIC OF PERSONALITY AND NONVERBAL .....</b>	<b>38</b>
<b>TABLE 3.</b>	<b>PERSONALITY AND NONVERBAL FISHER'S EXACT TEST .....</b>	<b>38</b>
<b>TABLE 4.</b>	<b>PERSONALITY AND NONVERBAL PEARSON'S CORRELATION .....</b>	<b>38</b>
<b>TABLE 5.</b>	<b>THE INCREASE OF NONVERBAL BASED ON PERSONALITY .....</b>	<b>39</b>
<b>TABLE 6.</b>	<b>MANN-WHITNEY U-TEST SIGNIFICANCE OF NONVERBAL .....</b>	<b>40</b>

**FIGURES**

<b>FIGURE 1.</b>	<b>MEAN RANKS OF NONVERBAL INCREASE BASED ON PERSONALITY .....</b>	<b>39</b>
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# 1 INTRODUCTION

## *1.1 Background and motivation*

Positive interactions between teachers and students is a crucial aspect in the classroom that can support the learning process (Van Lier, 1996). These interactions are conveyed not only explicitly through verbal ones, but also implicitly through sets of nonverbal behaviours (Mehrabian, 1981; Gorham, 1988; Butland & Beebe, 1992). In the educational field, these nonverbal behaviours that promote psychological and physical closeness between the teachers and the students are defined as teachers' nonverbal immediacy (Andersen, 1979). Especially in the early childhood education (ECE) setting, teachers' nonverbal immediacy is vital in promoting the supportive relationship that affects all developmental aspects of young children (Buckley, 2003).

According to Finnish ECE curriculum, the provision of supportive personal relationships for each student is one of the basic goals (Finnish National Agency for Education, 2017). Therefore, it is important to examine the influencing factors that elicit nonverbal immediacy of the teachers. Researchers believe that one of the factors that have a major impact on the teachers' ability to establish the positive relationship with the students through nonverbal behaviours is the personality type (Kesner, 2000; Baker, 2006). Being aware of the possible impact of personality types towards the nonverbal immediacy tendencies can help ECE teachers to regulate their nonverbal behaviours appropriately to facilitate learning. This is the reason why this study has an interest in investigating further the causal relations between the teachers' personality types and their nonverbal immediacy in Finnish ECE setting.

## *1.2 Purpose and significance of the study*

The study of nonverbal immediacy has become an important topic for researchers from various fields of study, including education since decades ago (Knott, 1979). Throughout the years, extensive amount of literatures has been produced on this topic. Even though this topic has been widely researched, most of the studies done in the educational setting have been counting heavily on the impacts of nonverbal immediacy in the classroom and less attention is given to the underlying factors of these behaviours.

The set of studies of nonverbal immediacy in the educational context, including the initial ones, mainly explore how impactful nonverbal immediacy is. Those researchers attempted to find out the effects of teachers' nonverbal immediacy on student learning. Several studies were conducted to examine the positive impact of nonverbal immediacy on the study outcome and students' interest on the study materials (e.g., Andersen, 1979; Nussbaum & Scott, 1979; Andersen & Withrow, 1981). These studies were carried out by comparing and evaluating the learning results of the students in relation to the degree of nonverbal cues used by the teachers. Questionnaires were also given to the students to assess the increase of interest towards the materials given by the teachers.

The succeeding studies also aimed at amplifying the fact that nonverbal immediacy is a key factor for effective instruction in the classroom that leads to the improvement of student learning. These studies argued that teachers' nonverbal communication has a positive association with student motivation in learning (Christophel, 1990; Frymier, 1994; Christophel & Gorham, 1995). The similar method was used in which self-report measures were given to the university students to determine their perceived teacher immediacy and motivation level. Just as other studies that intended to link the learning improvements and factors related to learning environments, these studies positioned the students' perspective as the major aspect to be examined (Corallo, 1994 as cited in McCroskey et al., 1996). The point of view of teachers in regards of their own nonverbal immediacy was unexplored in this collection of works.

The expansion of the research in interdisciplinary fields was done through the subsequent studies. Specifically, a quite large portion of literature is dedicated

to study nonverbal immediacy and related constructs within the school and higher educational context. Aside from the students' motivation, the other studied constructs are: affective learning (Plax et al., 1986; Pogue & Ahyun, 2006; Martin & Mottet, 2011; Sally, 2018), cognitive learning (McCroskey et al., 1996; Hinkle, 1998; Gholamrezaee & Ghanizadeh, 2018; Witt & Wheelless, 2001), and students' perceptions of emotional support (Mazer, 2013; Mazer et al., 2014). All of these investigations showed positive correlations between nonverbal immediacy and the aforementioned constructs. Therefore, the researchers have agreed that the importance of nonverbal immediacy is undeniable for the students due to its ability to bring the teachers and students closer both physically and emotionally, as well as to give emotional support to the students (Andersen, 1979).

Aside from the school and higher education contexts, several studies investigated the teachers' nonverbal immediacy in ECE context. These studies argued that nonverbal immediacy in ECE is even more important as young children mainly communicate nonverbally (Hyson, 2008; Knott, 1979). The nonverbal immediacy projected by ECE teachers was proven to retain the children's engagement in the class (Hyson, 2008; Hansen, 2010; Park, 2013) and most importantly, nonverbal immediacy affects young children's holistic development which includes social, emotional, physical, and intellectual aspects (Buckley, 2003). Reflecting from its importance, more attention should be given to nonverbal immediacy in ECE context. However, most literatures investigated the teachers' nonverbal immediacy in the primary up to higher education level and only few studies were dedicated to the ECE setting.

Furthermore, within decades, nonverbal immediacy, that originally comes from the communication field, has been linked to the field of education and psychology. Yet, the majority of studies still focused on the effects of nonverbal immediacy on the students, instead of the causes that might affect the teachers' immediacy itself. Psychology researchers argue that personality differences affect the way individuals express themselves in communication (Baker, 2006; Koppensteiner & Grammer, 2011). Thus, it is reasonable to conclude that teachers' personality types, to some extent, have an influence on their nonverbal

behaviours. Even so, only few have tried to examine the relations between teachers' nonverbal immediacy and their personality types.

Moreover, as a universal concept of communication, nonverbal immediacy exists in all cultures. It has drawn interests in exploring teachers' nonverbal immediacy in cross-cultural backgrounds. Numerous studies have tried to provide comparative analysis on the impacts of teachers' nonverbal immediacy in different national settings (McCroskey et al., 1995; McCroskey et al., 1996; Gregersen, 2006; Santilli & Miller, 2011; Santilli et al., 2011). These studies are essential as they provide stronger evidence for the significance of nonverbal immediacy for students across nations. Among the results of these studies, many have noted that nonverbal immediacy is a culturally-bound construct. Nonverbal cues are construed differently based on the local culture. It would thus be of interest to also investigate nonverbal immediacy in each local context.

Referring to the previous studies that have been reviewed, some gaps can be identified. Firstly, rather than investigating the underlying factors, most studies about nonverbal immediacy are dedicated to investigate the impacts of it. Specifically, to study the impacts of teachers' nonverbal immediacy on students' learning and emotionally related outcomes (e.g., Andersen, 1979; Sally, 2018; Mazer et al., 2014). Secondly, in relation to the previous point, due to the objectives of most studies, the researchers put less attention on teachers' perspective. Considerable study has been devoted to explore students' perceived teacher nonverbal immediacy and less attention has been paid to teachers' awareness of their own nonverbal immediacy. Thirdly, even though this notion has been extensively studied, only few explored teachers' nonverbal immediacy in the ECE context. Previous literatures were concentrated on school and higher education setting. Lastly, Finland has been a part of several comparative cross-cultural studies about teachers' nonverbal immediacy, yet, domestically, it has not been widely explored.

Moreover, the present study argues that the importance of nonverbal immediacy is undisputable in ECE setting as emotional conditions of young children greatly influence their behaviours and thinking that affect their engagement to the classroom activities (Hyson, 2008). Nonverbal cues that the teachers use are the major determinants of the children's emotions. Thus, exploring personality types as the underlying factor of nonverbal immediacy and



focus on teachers' perspective are essential to raise the teachers' self-awareness. By having the awareness of their own personality types and nonverbal tendencies, teachers should be able to utilize their nonverbal cues appropriately to maximize their students' learning. However, to the best knowledge of the researcher, up to the present time, no study has been done to find out the relations between Finnish ECE teachers' personality types and their nonverbal immediacy. Therefore, this current study will explore further about this topic and focus on the teachers' self-perceived nonverbal immediacy.

This study is significant in that it contributes to the existing literature by providing insights of how strong the personality types of the teachers might affect their tendencies of nonverbal immediacy in Finnish ECE context. It also expected that this study will produce new knowledge in the topic of nonverbal immediacy, especially in the Finnish ECE setting, that might be useful for further studies.

### *1.3 Research objectives and research questions*

Concentrating on the Finnish ECE teachers' self-perceived nonverbal immediacy and their personality types, this study will focus on answering the following questions:

1. If any, what kind of relations are there between Finnish ECE teachers' personality types and their self-perceived nonverbal immediacy?
2. Are there any distinguished nonverbal behaviour patterns between the extrovert and introvert teachers when they are interacting with the children?

### *1.4 Thesis outline*

This research is divided into 5 chapters. In chapter 1, the overview of the research is presented through the discussion of the research focus, the gap in the provided literature, the purpose and the significance of this study. Chapter 2 provides the relevant literatures related to nonverbal immediacy and personality types. It also presents the theoretical framework of this study. In the following part, which is chapter 3, the research methods will be explained in detail. Specifically, the methods which will be presented here are: methodological background, data source, sample, analysis method, and analysis procedure. Chapter 4 will be

dedicated to discuss about the obtained findings. Lastly, in chapter 5, the summary of the research and the further implication will be addressed, including the limitations of this study and suggestions for further research.

## 2 LITERATURE REVIEW

As explained in the introduction part, previous studies in nonverbal immediacy and personality types have been parts of the educational research for the past decades (Knott, 1979). However, little studies have been dedicated to investigate the relations between these two variables through the teachers' perspective in the early childhood context. Therefore, the current study is intended to fill in the gap. However, before proceeding further, it is important to take a look at the concept of nonverbal immediacy and personality types to gain an in depth understanding. In this chapter, the literature review provides substantive theories of the two notions. In subchapter 2.1, the historical background of nonverbal immediacy as a part of immediacy construct will be presented and followed by the nonverbal immediacy concept in educational setting. The extroversion domain in personality theory and its implications in education will be explained in subchapter 2.2. In subchapter 2.3, the personality types and its relations with nonverbal immediacy will be discussed. Lastly, the summary of this chapter will be presented in the last subchapter.

### *2.1 Nonverbal immediacy*

Immediacy theory was firstly introduced by Mehrabian (1969) as one of the concepts in the communication research. Immediacy is defined as sets of behaviours that express one's approachability that will increase the physical and psychological closeness between communicators (Mehrabian, 1969). Later studies found that messages are conveyed through explicit and implicit way of communication (Mehrabian, 1981; Gorham, 1988; Butland & Beebe, 1992). The explicit messages transmit the content which refers to the verbal messages while the implicit ones communicate the feelings and emotions which refers to the nonverbal messages. Since verbal and nonverbal communication affect the communicators' state of closeness, thus, these two aspects become parts of the

immediacy construct and therefore, terms of communication and immediacy are interchangeable when talking about verbal and nonverbal cues.

In Mehrabian's study (1971), he explicated the principle of immediacy in which people will show attraction, preference, and evaluate positively towards people they like and they will show avoidance, aversion, and evaluate negatively towards people they do not like. As he suggested that fondness will cause immediacy, this statement led to the initial understanding about the psychological cause of immediacy and became the base of other researchers in the field for their subsequent works. Though, over the years, the principle of immediacy had advanced beyond the psychological perspective. Richmond and McCroskey (2000) developed another viewpoint of immediacy by stating that immediate behaviours will cause fondness. However, in Richmond and McCroskey's continuation study (2000), even though they seem contradictory, these two perspectives are proven to be reciprocal instead. The prevalence of one perspective over the other is just due to the field of study in which new perspective is more common among the researchers in the communication field while Mehrabian's perspective is known better among the psychology researchers.

Immediacy was expanded to other fields of study, including education. At the same time, many researchers also started to deepen the understanding of each immediacy component by studying verbal and nonverbal immediacy separately or comparing their impact in the classroom context. These studies led to arguments among researchers about the superiority of nonverbal communication in educational field. Researchers believed that nonverbal immediacy could be more impactful than the verbal immediacy in the class (Andersen, 1979; Richmond, 2002; Arnold, 2003). Richmond (2002) explained that while verbal communication is always accompanied by sets of nonverbal cues, nonverbal immediacy can be present independently. Thus, nonverbal aspect of immediacy is the essence of communication as it presents in all kinds of human interactions. Nonverbal behaviours that are articulated by teachers are strongly related to the information delivered verbally. These nonverbal cues become the message itself as the real meaning of the words is delivered through the way it is expressed nonverbally (Chaudhry & Arif, 2012; Jeffrey & Fox, 1998).

Andersen (1979), who first introduced immediacy into educational field, explained that teacher immediacy, specifically the nonverbal one, has the crucial

role in reducing the physical and psychological distance between teachers and students. The closeness will increase the willingness of the students to interact with their teachers that, as a result, will maximize the learning experience. Gorham (1988) who also investigated the relations between each immediacy component and affective learning stated that even though both immediacy aspects have positive correlations to affective learning, the nonverbal immediacy showed a clearer and stronger correlation than the verbal one.

As the nonverbal immediacy gradually gained more attention among researchers, nonverbal cues were classified into categories. Andersen (1979) and McCroskey et al. (1995) proposed that nonverbal immediacy can be classified into kinesics, vocalics, haptics, proxemics, and oculosics. However, in the classroom settings, nonverbal immediacy can be generally classified into facial expressions such as smiling, tone of voice that includes vocal varieties and expressiveness, touching, eye contact, gestures, and proximity that includes sitting or standing distance between teachers and students.

The immediacy-related studies are multifaceted and try to investigate the association between immediacy and various dimensions of effective teaching and learning (Gholamrezaee & Ghanizadeh, 2018). For instance, acknowledging the importance of nonverbal immediacy in the educational context, many studies discussed further about how nonverbal immediacy might affect the cognitive learning. Andersen's study (1979) revealed that teacher nonverbal immediacy has a positive correlation with student outcome and interests towards the learning topics. However, she failed to show the correlation between teacher nonverbal immediacy and the improvement of cognitive learning (Andersen & Withrow, 1981). The subsequent studies that studied the relations between teacher nonverbal immediacy and cognitive learning (Nussbaum & Scott, 1979; Andersen & Withrow, 1981) also yielded the similar outcome until Richmond and McCrosky (1992) found out the participants and problematic research designs as the causes of deviating results among those studies.

Similarly, the subsequent study conducted by McCroskey et al. (1996) tested the positive association between teachers' nonverbal immediacy and cognitive learning. This cross-cultural study investigated college students from the U.S., Australia, Puerto Rico, and Finland. They raised the hypothesis that there would be a strong association between the teachers' nonverbal immediacy

and the cognitive learning in all of these countries. The result supported the hypothesis by showing that increased nonverbal immediacy will increase the perceived learning and decrease the possibility of learning loss in all four cultures consistently. In another study, Finn and Schrodt (2012) examined the extent to which the effects of teachers' perceived clarity and nonverbal behaviour on learning empowerment can be mediated by the students' perceptions of teachers' understanding. This investigation which involved undergraduate students showed that teacher nonverbal immediacy and clarity positively affected all dimensions of learning empowerment.

The following study conducted by Rodriguez, Plax, and Kerney (1996) stated that teachers' nonverbal behaviours will increase the students' interest on the learning subjects that causes the increase of cognitive learning. Through this conclusion, they proposed the affective model in which affective learning is the intermediary factor in regards to the positive correlation between nonverbal behaviour and cognitive learning. Otherwise stated, aside from having a linear direct relation, nonverbal immediacy also has an indirect relation with cognitive learning which is mediated by affective learning.

The dimension of affective learning also sparked the interest of Martin and Mottet (2011). In their study, they examined how the teacher's nonverbal immediacy might influence the affective learning of Hispanic students in ninth grade writing conferences, regardless the level of sensitivity of the verbal feedback they received. The findings revealed that both teacher nonverbal immediacy and the sensitivity level of the verbal feedback have an impact on the students' affect for writing conferences. However, the nonverbal immediacy demonstrated by the teacher such as smiles, forward lean, and expressive tone of voice has a stronger influence in the students' affect for writing conferences while the verbal feedback showed insignificant influence. This result supported their hypothesis in which the students who experience the more immediate teacher during the conference writing class have more affect towards the teacher, writing conferences, and writing in general, irrespective of the sensitivity level of the perceived verbal feedback. This improvement on the teacher-student relationship will in the end, affect the students' learning outcomes.

On the other hand, several other studies concluded that nonverbal immediacy is the one that has a big role in increasing the students' learning

motivation that leads to the increase of cognitive and affective learning which later known as the motivation model (Christophel, 1990; Richmond, 1990; Frymier, 1994; Christophel & Gorham, 1995). In other words, these studies proposed that nonverbal immediacy has an indirect relation with cognitive and affective learning which mediated by the increase of the students' motivation to learn (Zhang & Oetzel, 2006). Another study conducted by Pogue and Ahyun, (2006) studied about student motivation in relation to the nonverbal immediacy. One of the presuppositions of this study was that teachers' nonverbal immediacy is associated with the students' learning motivation. The result of this study supported the hypothesis in which students felt more motivated in their learning if the teachers showed higher degree of nonverbal immediacy which in the end, increase the study outcomes.

These earlier studies have proven that in the school and higher education level, nonverbal immediacy has an undeniable major impact on students, especially in relation to the motivation, affective, and cognitive learning (Zhang et al., 2007). In the early childhood education, teachers' nonverbal immediacy is even more vital as young children put forward their emotions and communicate primarily through nonverbal communication (Hyson, 2008; Knott, 1979). Hyson (2008) stated that nonverbal immediacy positively supports the enhancement of emotional relationship between the teacher and young children that directly affect the children's state of emotions. This emotional conditions in young children is a key role in shaping their thinking and behaviours. It can be concluded that in early childhood level, nonverbal immediacy construct mostly falls under the affective model in which the nonverbal communication provided by the teachers will increase the teacher-student emotional relationship that indirectly leads to the increase of cognitive development.

Emotional support in the ECE level has been mentioned as one of the most important key factors that affect the social, emotional development (Wilson et al., 2007) as well as the achievement of the students and the confidence in learning (Burchinal et al., 2002; Harris & Sass, 2011; Araujo et al., 2016; Hamre & Pianta, 2007). Even, the consistent emotional support from the teachers can reduce the risk of behavioural problems in the students in the later years (National Institute of Child Health and Human Development Early Child Care Research Network as cited in Curby et.al., 2013). Pianta (2001) explained that in the teacher-student

relationship, the closeness dimension refers to the emotional support which can be depicted as the positive and warm affections between the teacher and the young students.

In Finland, the ECE curriculum clearly stated that one of the basic goals for Finnish ECE is the provision of warm and supportive personal relationships for every child (Finnish National Agency for Education, 2017). This educational framework supports the findings from previous studies related to attachment theory which strongly suggested that the development of children is influenced by their attachment with the caregivers such as their teachers (Ainsworth et al., 1979). Children may seek emotional attachment from the people around them and especially, from the adults who take care of them. Parents or the caretakers at home can be the first sources of emotional support for the children. In the ECE level, this bond is even more crucial since the children perceive the teachers as their primary caregivers and the source of security which indicates that the young children search for emotional support from their teachers to make them feel safe at this early stage of education (Brock & Curby, 2014, Pianta & Steinberg, 1992, Doherty-Sneddon, 2003).

Astoundingly, the provision of a sense of security, positive relationships, and the promotion of socio-emotional development in young children can be primarily be mediated through touch (Carlson, 2006). Park (2013) also claimed that physical contact is needed to help the young children to feel loved, comfortable and to promote a sense of safety. Likewise, Buckley (2003) even strongly suggested ECE teachers to use loving touches and physical contacts to encourage emotional, social, physical, and intellectual development as the lack of warm physical contacts during the early childhood period can lead to problems in the future, especially hindering their emotional growth. Therefore, the role of nonverbal immediacy in ECE is uncontestedly essential and both directly and indirectly impacts many aspects of the children's future development.

Nonverbal immediacy in ECE is also strongly associated with instruction. Smiles, head nods, hand claps, and other nonverbal cues expressed by the ECE teachers can fluctuate the children's engagement in the class, which is the indicator of participation in instruction (Hyson, 2008; Hansen, 2010, Park, 2013). As the nonverbal behaviours transmit the emotional message in communication, young children and ECE teachers intentionally and unintentionally communicate



their feelings more through nonverbal cues than through words (Guerrero et al., 2008; Hansen, 2010). Young children even perceive that nonverbal cues are more authentic and tend to trust them more than the verbal message in the situation when the verbal and nonverbal communication are inconsistent (Noller, 1984). Moreover, according to Damasio (1999), children capture even the slightest hint of teachers' nonverbal signals such as facial expressions (smile, frown), eye contact, body language (gestures, postures, proximity), physical contacts (hug, touch), and tone of voice (calm, excited) to interpret and judge the instructions given by the teachers.

Reflecting upon the previous studies, nonverbal immediacy as an instructional tool can promote the children's engagement and participation in the class that consequently, can increase their possibility to be successful in their learning (Carlson, 2006; Hyson, 2008; Park, 2013). Correspondingly, Copple and Bredekamp (2009) also claimed that the appropriate and considerable use of nonverbal immediacy in pre-school help to cultivate the excitement and engagement to learning, which are the key factors that determine school readiness.

In another study, Williford et al. (2013) mentioned that ECE teachers can create a supportive environment for children to develop their self-regulation skill by building warm and positive emotional bonds with the children, such as through the deliberate use of nonverbal communication. Moreover, teachers' nonverbal immediacy is proven to influence how the young children project their judgment towards others. A study conducted by Brey and Shutts (2018) investigated how the children evaluate their peers based on the teacher's nonverbal cues. Children aged 4 to 6 participating in this study showed that they perceived their peers as smarter if the teachers showed affirmative nonverbal cues such as smiles and head nods despite of their peers' actual performances. Conversely, the peers who actually performed well but received unfavorable nonverbal cues such as neutral face expressions and head shakes were considered as less smart by the participants. This finding indicated that nonverbal behaviours projected by the teachers influence young children's inferences and evaluation of peers and people around them. These extensive body of literature have showed the importance of nonverbal immediacy in the holistic development of young children and beyond. Nevertheless, the portion of studies about nonverbal immediacy in

early childhood context is noticeably smaller than the studies in other educational settings.

Reflecting upon all the positive impacts of the nonverbal immediacy in the educational contexts, it is important for the teachers, particularly the early childhood educators to deepen their understanding of nonverbal immediacy (Park, 2013). Many researchers have pointed that nonverbal behaviours are mostly spontaneous and not controlled by consciousness (Thomas et al., 1994). Some cues might be consciously controlled to support the communication. Yet, most of them are unintentionally transmitted. However, studies found out that training is beneficial in improving the nonverbal immediacy and help educators to be able to incorporate deliberate and appropriate nonverbal cues towards children (Nussbaum, 1984; Richmond & McCroskey, 2000).

The use of nonverbal behaviours in ECE, and perceptibly in general, should be adjusted according to these two factors. Firstly, nonverbal communication should be age-appropriate to ensure they feel comfortable during the interactions as children acquire the nonverbal communication as they grow up (Buckley, 2003). For instance, up to two years of age, children communicate in an intimate proximity and the sense as well as preferences of personal space during the communication appears as they mature. Thus, the ECE teachers should be mindful of their nonverbal strategies by taking into account the children's reactions towards the nonverbal cues perceived and be aware of the children's nonverbal communication development according to their age (Park, 2013).

Secondly, culture appropriateness should also be considered in regards of using the nonverbal behaviours. Nonverbal behaviours present in all cultures as a part of universal communication concept. Numerous cross-cultural studies have investigated the impacts of teachers' nonverbal immediacy in different national settings (McCroskey et al., 1995; McCroskey et al., 1996; Gregersen, 2006; Santilli & Miller, 2011; Santilli et al., 2011). The studies have concluded that nonverbal immediacy is a culturally-bound construct. Nonverbal cues are interpreted differently according to the local culture. In Matsumoto's study (2006), it is explained that some nonverbal cues can be universally understood. Specifically, this study stated that facial expressions of anger, fear, disgust, happiness, sadness, and surprise are universal. Yet, most of the other nonverbal behaviours are demonstrated and perceived differently across cultures.

Matsumoto and Hwang (2013) classified the cultures into expressive and reserved culture. The expressive culture shows more facial expressions, gestures, eye contact, various tone of voice, relaxed and open body postures, and establish closer distance with the interlocutor. In contrast, the reserved culture shows fewer facial expressions, gestures, eye contact, monotonous tone of voice, rigid and closed body postures, and greater distance with the interlocutor. Finnish people belong to the reserved culture in which they show lower degree of nonverbal immediacy in comparison to other expressive culture countries such as the U.S., Australia, and Puerto Rico (McCrosky et al., 1995).

Previously, Hall (1969 as cited in Hall, 1990) also coined the term of contact and noncontact culture which focus on the interpersonal spacing. People who belong to the contact culture such as people from Arab and Southern Europe countries, have the tendency to be at a close distance with their interlocutors (Mazur, 1977). On the other hand, people from North America and Northern Europe countries who belong to the noncontact culture, generally maintain a greater distance with their interlocutors. Thus, in this category, Finnish people also fall under the noncontact culture in which the nonverbal immediacy is limitedly expressed. That being the case, due to its incongruence across cultures, nonverbal immediacy is not only expressed differently, but also interpreted differently (Matsumoto, 2006). For instance, an appropriate talking distance in a contact and expressive culture might have violated the personal space of people in a noncontact and reserved culture. Hence, teachers in culturally diverse classes should be aware of their students' cultural perceptions towards nonverbal immediacy as these students might construed the meaning of the nonverbal cues dissimilarly (Park, 2013).

To conclude, nonverbal immediacy is a complex, multi-faceted construct that encompasses developmental, emotional, social, psychological, and cultural aspects. It has a powerful impact for students in all stages of education and especially in ECE setting. Therefore, nonverbal immediacy in education should be studied and explored from various educational levels, perspectives and different facets.

## 2.2 *Personality types*

Up to the present time, even though there is no conclusive consensus of the definition of it, personality types are defined as connatural psychological aspects that govern the way people behave towards various life situations and determine the most comfortable environments the person should be in (Jung as cited in Amir et al., 2015). The tendency to categorize characters in people have happened over centuries (Jensen, 2016). However, the personality and its traits were not extensively studied until the last century. In 1921, Carl Jung developed the theory of personality types and came up with the term of extroversion and introversion (Jung et al., 2012). According to Jung, extroversion refers to showing interest to all beyond one's own self (Jung et al., 2012). Introversion, on the contrary, can be described as showing interest towards one's own thoughts. In other words, extraverted people focus on outward world while introverted people look inward.

Referring to Jung's perception of this personality theory, some studies attempted to describe characteristics of each personality type. For instance, Shoarinejad (1984) stated that extroverts are generally playful, sociable, living in the moment, good speakers, interested in people and physical activities. In contrast, introverts are unsociable, conservative, good writers, interested in books, their own feelings and thoughts. Ellis (2008) also described similar characteristics. The extroverts are lively, sociable, have many friends, like parties and excitements while the introverts are quiet, have less friends, prefer reading than socializing, and avoid excitements.

Eysenck (as cited in Costa & McCrae, 1986), another prominent psychologist, added to Jung's idea that extroverted people gain energy from external factors such as people and actions. Conversely, the introverted people prefer ideas and reflection on their own actions to regain their energy, and thus, display solitary attitude. He and his partner also did a biometrical-genetical experiment involving 837 adult twin pairs and this study revealed that extroversion is strongly determined by genes (Eaves & Eysenck, 1975; Martin & Jardine, 1986). However, this study also yielded another result in which even though extroversion and introversion are primarily genetical, environment might have an influence on the degree of extroversion and introversion trait. This

second result opened a new perspective of personality types which became the base of advancement in the personality research.

As the theory evolved, instead of being an innate, definitive trait, more researchers supported the result achieved by Eaves and Eysenck that personality type is more complex and fluid in nature (Miller, 1991). Groups of psychologists constructed a multi-model personality theory known as the life-span personality development models which one of them argued that human experience psychological fluctuations at certain stages of life (as cited in Pulkkinen & Caspi, 2002). During the course of a life span, some psychological aspects develop continuously and some others experience alterations. These changes are affected by age, history, and non-normative influences. As people age, the education, historical events such as wars, and non-normative occurrences such as accidents require psychological capabilities to adjust. Thus, the personality develops along with lessons learned through formal education and life adaptations (as cited in Pulkkinen & Caspi, 2002). The controversy brought out a noteworthy point in which it is important that personality type should be utilized as a tool to study one's behaviour preferences rather than as a fixed determinant of behaviour characteristics to label people (Miller, 1991).

Due to its complexity, many personality type concepts were developed in attempt to deepen the understanding towards personality. Eysenck himself came up with two other personality domains which are neuroticism and psychoticism (Kalasūnienė et al., 2013). Neuroticism is related to mood, worry, and anxiety while psychoticism refers to the degree of aggressiveness and interpersonal hostility (Kalasūnienė et al., 2013). Building on Jung's personality foundation, Katherine Cook Briggs and her daughter, Isabel Briggs Myers developed one of the most famous psychological concepts known as Myers-Briggs Type Indicator or MBTI for short (Stein & Swan, 2019). They incorporated three other domains to classify personality. Aside from extroversion-introversion, they added sensing-intuition, feeling-thinking, and judging-perceiving (cited in Stein & Swan, 2019: Quenk, 2009). Sensing refers to how a person uses her senses to perceive the stimuli from the outer world while intuition refers to assessing impressions from the environment. Feeling-thinking involves one's preference in using either logic or emotional values. Lastly, judging-perceiving domain refers to the preference in planning ahead or being spontaneous. These traits are represented by 8 letters.

A person's personality type is the combination of 4 letters in which each letter represents a psychological domain (e.g. ENTJ refers to extroverted, intuitive, thinking, and judging personality type).

The latest concept is known as Five Factor Model or Big Five personality model, firstly developed by Tupes and Christal in 1961 (Tupes & Christal, 1992). The advancement of this model was the result of various researchers' studies (Goldberg, 1993). This model involves five psychological dimensions which are extroversion and introversion, open to new experience and traditionalist, consciousness and careless, agreeableness and self-centred, neuroticism and emotionally stable (McCrae & Costa, 2006). Similar to the MBTI, this model also uses letters to represent the personality dimensions. Referring to this model, a research was conducted to investigate the stability of personality over time (Roberts & DelVecchio, 2000). By reviewing 152 longitudinal studies, this research found that extroversion domain is among the most consistent domains. The personality experiences the biggest fluctuation under the age of 20 and stabilizes afterwards. Even though the state of extroversion and introversion might change throughout our lives, the trait remains the same. Thus, this finding supports the previous study conducted by Eaves and Eysenck (1975).

Regardless the immense development of the personality concept, all personality models always comprise the extroversion and introversion domain which was proposed by Jung. This demonstrates the fundamentality of the extroversion domain in the personality type construct (Costa & McCrae, 1986). Moreover, as personality types govern our behaviours and perceptions towards the environment, this concept has been linked to other social sciences fields, and education is no exception. Numerous studies have been conducted to find the relations between extroversion domain and other educational variables (Alavinia & Hassanlou, 2014). However, the majority focused on the student's personality and its connection to preferred learning strategies (e.g. Fazeli, 2012; Kayaoglu, 2013; Wakamoto, 2000; Wakamoto, 2009). These studies have supported the idea that learners' personality types influence their preferred and suitable learning strategies that might increase the learning outcomes (Pittenger, 2016).

In addition, although not as extensively, teachers' personality type has also been studied (Kim et al., 2019). Researchers have linked teachers' personality types and teacher effectiveness aspects which are as follow: effective teacher

personality type descriptions, impacts on teacher positive and negative features, impacts on teacher professional conducts and the effects on students such as preferred teaching methods, impacts on teacher identity, and teacher personality within personality theory framework (Göncz, 2017). Even though the literature is limited, studies have demonstrated that teacher's personality is strongly associated with their approach in establishing social interactions with the students, which is the key feature of teacher-student relationship (Teven, 2007). Thus, knowing their personality traits is beneficial for teachers to adjust their behaviours in order to improve the positive relationships with their students.

In summary, extroversion domain in personality concept is fundamental and the significant role of personality types in all aspect of life is inevitable, including education. As teachers are the spearheads of the students' development (Kim et al., 2019), studies in personality theory can help to provide more understanding towards the role of teachers' personality in educational contexts (Göncz, 2017). With its account and the lack of study in this area, it is important that further studies in teachers' personality type are conducted to shed more light on the teachers' professional development.

### *2.3 Personality types in relation to nonverbal immediacy*

According to the prior studies, personality traits influence one's interpersonal interactions, thus, it includes expressiveness in communication (Koppensteiner & Grammer, 2011). Reasonably, it influences how individuals communicate nonverbally. As explained in the previous subchapter, nonverbal immediacy is bounded by culture in which the expressive culture is corresponded to the contact culture and the reserved culture is corresponded to the noncontact one (Hall, 1990; Matsumoto & Hwang, 2013). The contact and expressive culture display more touch and closer degree of proximity while the noncontact and reserve culture appear to keep more distance during the communication (Lustig & Koester, 2003). Some other studies also supported the understanding wherein the contact culture shows consistent eye contact, various facial expressions, touch, and expressive tone of voice (Ting-Toomey, 2010). On the other hand, noncontact culture is described as showing noticeably fewer physical contacts such as touch, avoid direct eye contact, and monotonous tone of voice. Young

(2011) specified the nonverbal communication in expressive culture similarly such as using more eye contact, gestures, tone of voice, and facial expressions. While the nonverbal cues in reserved culture are described as low mutual gaze, and few or even no facial expressions, gestures, as well as tone of voice.

A study conducted by Jansen (2016) investigated the nonverbal communication patterns based on the personality types. In his study, 302 students from ten different countries participated and the findings demonstrated that the extroverted participants showed closer distance with the interlocutors, mutual eye contact, preference over face to face conversations, and various physical contacts, facial expressions, as well as speech intonations. In contrast, introverted participants displayed opposite behaviours in comparison to the extroverted ones. The finding suggested that extroverted people value intimacy than privacy while the introverted people are the other way around. Jansen's investigation confirmed the previous studies which concluded that extroversion personality traits are strongly associated with nonverbal immediacy in contact and expressive culture whilst the introversion traits are strongly associated with the nonverbal immediacy in noncontact and reserved culture (Argyle, 2013; de Vries et al., 2013).

Teacher immediacy is proven to increase the student-teacher relationship (Pianta, 2001; Hyson, 2008) and similarly, teachers' personality type is the factor that affect the ability to establish positive relationships with the students (Teven, 2007). Also, based on the aforementioned explanation, personality types influence one's nonverbal communication. Thus, there is a reciprocal relationship between nonverbal immediacy and personality types that lead to establishment of positive student-teacher relationship. Unfortunately, the strong association between teachers' extroversion-introversion and their nonverbal immediacy is not extensively studied yet in the field of education. Nevertheless, few studies conducted in this topic demonstrated a positive association between these two variables. For instance, Teven (2007) investigated the relations between the teachers' personality traits and caring attitude in the university setting. This study found that extroverted teachers are more caring as they demonstrate interpersonal engagements and immediate behaviours towards their students. This study is in line with the statement which mentioned that in the ECE context,



caring teachers are more likeable by the children due to the interpersonal closeness (Saracho, 2003).

Another study also investigated the connection between English as a Foreign Language teachers' personality types and their instructional immediacy in the higher education institution (Amir et al., 2015). Their study showed a strong positive correlation between the extroversion personality and nonverbal immediacy. Reasonably, researchers concluded that nonverbal immediacy, which helps to establish positive student-teacher relationships, is positively associated with teachers' personality types (Kesner, 2000; Baker, 2006). Yet, it should be noted that this study relied on the nonverbal immediacy data which were taken during the teaching time. The nature of an occupation also affects individuals' behaviours (as cited in Wong & Li-fang, 2013), thus, this result could be affected by the teachers' awareness of their teaching expectations.

However, a study conducted by Wong and Li-fang (2013) can help to support the theory of strong positive correlation between personality and nonverbal immediacy. This descriptive study investigated the personality types of kindergarten teachers in Hong Kong and the finding showed that the extroversion personality type was more predominant than the introversion type which might be due to their natural effective interpersonal strategies needed in the ECE working environments. The important point from this research is that extroverted teachers are naturally skilful in establishing interpersonal relationship, which assuredly includes utilizing nonverbal communication. Therefore, the result from this study and the one done by Amir et al. (2015) suggested that extroverted teachers display higher degree of nonverbal behaviours both generally and in the classroom setting in comparison to the introverted teachers.

To conclude, the respective literature depicted a mutual association between teachers' personality type and teachers' nonverbal immediacy towards the establishment of supportive relations between teachers and students. Moreover, it seems that extroversion consistently influences the teachers' nonverbal behaviours in and out of the class. Unfortunately, this topic is not yet studied to the great extent beyond the higher education setting. That being the case, further studies are needed to deepen the understanding of this topic in broader dimensions and other educational contexts.

## *2.4 Summary*

This chapter established the critical synthesis of the literature about the concept of nonverbal immediacy and personality types in educational frameworks. Studies have offered empirical evidences of the strong association between personality types of the teachers and their nonverbal immediacy. Nevertheless, the research regarding the relations between teachers' personality types and nonverbal immediacy which focuses on the teachers' perspective in the ECE context remains an uncharted territory, especially in Finnish ECE setting. Hence, this present study attempts to fill in the gap in the literature. Moreover, as researchers proposed that nonverbal immediacy is a culturally-bound construct, this study will contribute to the literature by giving insights about how strong does the personality types of the teachers affect the nonverbal immediacy within a nonverbally required profession in a reserved, noncontact culture.

# 3 RESEARCH METHODOLOGY

Nonverbal immediacy in education has increasingly gained attention for the past decades (Knott, 1979). However, the previous studies have not paid enough attention on teachers' perception of their own nonverbal immediacy and its relations to personality types, particularly in ECE context. Thus, intending on filling in the literature gap, this study uses reflective instruments to focus on teachers' perspective. In this chapter, the research design will be presented, including the instruments used, its descriptions, the rationales behind the selection of them, and the validity as well as reliability of the instruments. Furthermore, the data analysis procedure and ethics will also be presented.

## *3.1 Methodological background*

As the literature has shown, personality types and nonverbal immediacy demonstrate a reciprocal association. Thus, the quantitative methodology should be implemented to find the relations. According to the epistemological background, quantitative research method employs the positivism paradigm in which measurable data and evidences are the means to understand social phenomenon (Pham, 2018). Therefore, in finding relations between independent and dependent variables, positivism paradigm utilizes empirical data gathered through questionnaires or samplings that will produce results with higher validity and reliability, as well as higher possibility of generalizability (Pham, 2018). Quantitative research in finding the relations between teachers' personality types and nonverbal immediacy has also been used by Amir et al. (2015) in their study. The alternative methodological approach has been considered. However, the researcher argued that the need to do the study regarding the relations between the two variables is to establish a parameter of how the personality might affect the teachers' nonverbal immediacy in order to contribute to the teacher professional development, especially in Finnish ECE setting. As Amir et al. (2015)

stated, the main reason of exploring the relations between teachers' personality types and nonverbal immediacy is to maximize the teaching and learning process. In order to achieve this goal, quantitative method should be used to study the characteristics of individuals in a society and create a general picture of the association.

Adopting the quantitative method as a part of positivism paradigm, this present study used questionnaires to determine the teachers' personality types and their nonverbal immediacy. Previous studies argued that culture affects the interpretation of nonverbal cues (McCroskey et al., 1995; McCroskey et al., 1996; Gregersen, 2006; Santilli & Miller, 2011; Santilli et al., 2011). Thus, the nonverbal immediacy questionnaire used was a self-perceived type in order to avoid cultural misinterpretation between the teachers and the researcher. The further description of the questionnaires will be presented in subchapter 3.4.

### *3.2 Participants*

The population of this study consisted of daycare teachers in Tampere. Specifically, the participants are restricted to daycare teachers who met the following criteria: they are from Finland, they completed their ECE teacher training in Finland, and they are willing to participate in this study by filling in the questionnaires. The criteria were set due to these rationales: firstly, they should be daycare teachers in order to be able to investigate the relations between the teachers' personality types and their nonverbal immediacy in the Finnish ECE setting. Secondly, they should be originally from Finland to avoid cultural bias as nonverbal immediacy is culturally-bound.

This study involved 30 ECE teachers from 9 daycare centers in city center, southern, and southeastern districts of Tampere. Out of 30 participants, there were 2 males and 28 females. These participants were selected based on the convenient sampling method. The data collecting process took approximately 3 months in which each participant had to fill in a questionnaire to determine their personality types and 2 questionnaires to determine their nonverbal immediacy outside and inside the classroom. The participants and the researcher discussed the convenient time for the researcher to hand in and collect the questionnaires.

On average, the participants needed one day to two weeks before they submitted the questionnaires to the researcher.

At the beginning, the researcher used Tampere municipality website to find the list of daycare centers in Tampere and restricted the area into city center and southern district. The website stated all the daycare centers along with the email address and phone number of each daycare manager. From the website, the researcher chose 20 daycare centers randomly and contacted the managers through the email titled "Gathering data for my thesis" (see Appendix 1). In each email, the researcher attached the short research proposal and also asked about others, if any, additional documents needed to get the permission to gather the data. The research proposal itself included the brief explanation of the study, the research questions, criteria of participants, the measurements used, the estimated time to complete the questionnaires, and the ethics to ensure the privacy of the participants (see Appendix 2).

The researcher received the reply from 3 daycare centers and they asked for the research permission from the municipality (see Appendix 3). Thus, with the help from the research supervisor, the researcher applied for the research permission in the municipality website and the permission was granted within a week after submitting the online application (see Appendix 4). Upon receiving the permission from Tampere municipality, the researcher contacted the daycare centers again for setting up the time to meet. During the meeting with the daycare managers, the researcher explained further about the study and answered questions from the managers so that they could reexplained it to the teachers who would participate. After the first cycle of finding participants, there were only 9 participants from these 3 daycare centers. Thus, the researcher tried to called the other daycare centers that had been contacted through email before but had not given any reply. In addition, the researcher also asked people from her personal contacts in order to get more participants. Even though the researcher experienced difficulties in finding participants in the first cycle, in this second cycle, 22 daycare teachers from 6 daycare centers gave their consents to participate in this study. Therefore, in total, there were 31 participants from 9 daycare centers consisted of 6 daycare centers in city center district, 2 in southern district, and 1 in southeastern district.

**TABLE 1.** Demographic information of the participants

Participant	Daycare	District	Gender	Extroverted	Introverted
Teacher 1	Daycare A	Southern	Female	●	
Teacher 2			Female	●	
Teacher 3			Female	●	
Teacher 4	Daycare B	City Center	Female	●	
Teacher 5			Female	●	
Teacher 6	Daycare C		Female		●
Teacher 7			Female	●	
Teacher 8	Daycare D		Female	●	
Teacher 9			Female		●
Teacher 10			Male	●	
Teacher 11	Daycare E		Female	●	
Teacher 12			Female	●	
Teacher 13	Daycare F		Female	●	
Teacher 14			Female	●	
Teacher 15			Male		●
Teacher 16			Female		●
Teacher 17	Daycare G		Female	●	
Teacher 18			Female	●	
Teacher 19		Female	●		
Teacher 20	Daycare H	Southern	Female		●
Teacher 21			Female	●	
Teacher 22			Female	●	
Teacher 23			Female	●	
Teacher 24	Daycare I	Southeastern	Female	●	
Teacher 25			Female		●
Teacher 26			Female	●	
Teacher 27			Female		●
Teacher 28			Female		●
Teacher 29			Female		●
Teacher 30			Female		●
Total				20	10

After filling in the personality type and the nonverbal immediacy questionnaires, the result revealed that 20 participants are extroverted, 10 participants are introverted, and 1 participant was eliminated due to incomplete questionnaire. The demographic information of the participants is presented in Table 1 above demonstrated a fairly balance representation in which both personality types existed in almost all districts. This balance distribution of participants helps to increase the reliability of this study.

However, as the convenient sampling method was used due to difficulties in finding participants, the participants of this study are not entirely random. Thus, the result cannot be generalized to the larger population. Nevertheless, even though this present study is only able to represent limited population scale, this paves the way for further studies in this particular topic and context that can lead to a better representation of bigger population in the future.

### 3.3 Instruments

Based upon the underlying framework, there were 3 instruments used for the purposes of the current study:

- NERIS Type Explorer
- Nonverbal Immediacy Scale-Self Report (NIS-S), original version
- Nonverbal Immediacy Scale-Self Report (NIS-S), adapted version

The descriptions of each instrument are as follow:

#### 3.3.1 NERIS type explorer

This instrument was used in the first phase of this research to determine the personality types of the participants. It can be accessed through the website [www.16personalities.com](http://www.16personalities.com) (NERIS Analytics Limited, 2011). NERIS Type Explorer is a widely used online personality test based on the combined theories of Myers-Briggs and Big Five personality traits. This online test consists of 60 questions which will define five aspects of personality and one of them is the preference between extroversion and introversion.

This instrument was chosen because of several reasons. Firstly, it is a free, self-assessed personality test. The website processes the answers from the participants and generates the results automatically. Secondly, it is available in Finnish. As it is used internationally, NERIS Type Explorer is available in 30 languages, including Finnish. Thirdly, it is a reliable and valid instrument (NERIS Analytics Limited, 2020). Moreover, the discriminant validity demonstrates that the measurement for each personality scale is not overlapping with the other ones. In other words, this test is proven to test five dissimilar aspects. Therefore,

it is possible to use a single scale from this test and in this research, the introverted-extroverted scale was used.

### 3.3.2 Nonverbal immediacy scale-self report (NIS-S), original version

NIS is an instrument developed to measure nonverbal immediacy in various communication settings, including instructional and interpersonal contexts (Richmond et al., 2003). This instrument is designed to be able to be used as both self-report (NIS-S) and observer-report (NIS-O). The NIS-S which was used in this research is the latest revised version that has higher reliability and validity score compare to the previous version of the instrument. This measurement includes 26 items in which 13 of them are positively phrased and the other 13 items are negatively phrased. The 5-point Likert scale is used to answer each item. The test comprises the categories of nonverbal behaviours which are touch, proximity, eye contact, tone of voice, gesture, and facial expressions based on the categorization established by Andersen (1979) and McCroskey et al. (1995). As a self-assessed instrument, the scoring procedure and norms for male and female participants are provided by the creator of this test.

Aside from the high reliability and validity, the other reason for choosing NIS-S as the second instrument in this research is to avoid cultural misunderstanding in giving the assessment of the participants' nonverbal behaviours. Referring to the literature, the interpretation of nonverbal cues is affected by culture (McCroskey et al., 1995; McCroskey et al., 1996; Gregersen, 2006; Santilli & Miller, 2011; Santilli et al., 2011). Since the researcher comes from a different cultural background which views nonverbal behaviours differently, using NIS-S instead of NIS-O could help to prevent misjudgement due to cultural differences. For this second instrument, NIS-S was adopted as its original form without any changes and used to measure the participants' nonverbal immediacy in their general lives.

### 3.3.3 Nonverbal immediacy scale-self report (NIS-S), adapted version

This third instrument is the adapted version of the original form of NIS-S. The word "people" in each item was changed into "my students". This adaptation was



made in order to be able to measure the changes in the teachers' nonverbal immediacy when they are in the classroom in comparison to their normal lives.

### 3.3.4 Validity and reliability of instruments

As mentioned earlier, these two instruments were chosen due to its validity and reliability. For NERIS Type Explorer, based on its Cronbach's alpha values, the internal consistency reliability of the extroverted and introverted scale of this personality test is 0.87 and the test-retest reliability for the aforementioned scale is 0.83 (NERIS Analytics Limited, 2020). Moreover, the discriminant validity for each scale shows the coefficients which are all lower than 0.37. This shows that all the scales are proven to test five different personality aspects and thus, it is possible to utilize only one personality scale from this instrument. On the other hand, for NIS-S instrument used in this test, it is the newest version that developed by Richmond et al. (2003) to solve validity and reliability problems occurred when using the previous version. For this latest version of NIS-S, the estimated alpha reliability for this self-perceived measure is 0.90 and the validity is considered higher due to a greater number of various items (Richmond et al., 2003). Therefore, these instruments are valid and reliable to be used for the current study.

### 3.4 *Data preparation procedures*

The primary data of the teachers' personality types by the means of NERIS Type Explorer was collected from 31 ECE teachers. The Finnish language option was chosen in the website [www.16personalities.com](http://www.16personalities.com) and all the items from the instrument were rewritten in the Microsoft Word program. Revisions were done by the help from the research supervisor to make sure the translation corresponded to the meaning of the original ones in English. Similarly, the second and third instrument to measure the teachers' nonverbal immediacy which were taken from NIS-S were also rewritten in Microsoft Word program, translated by a Finnish colleague of the researcher, and was rechecked by the research supervisor. The NIS-S test to measure teachers' nonverbal immediacy in their general lives was adopted as its original version and the one to measure the

nonverbal immediacy in the classroom was adapted by changing the word “people” to “my students”.

Based upon the consideration, instead of using the online survey platform, the data for this research was collected by handing out the printed questionnaires for the participants. The questionnaires were given either to the participants directly or through the daycare managers. Each participant was given a bundle of questionnaires consisted of 1 page of inform consent form (see Appendix 5), 6 pages of NERIS Type Explorer personality questionnaire (see Appendix 6), 1 page of NIS-S original version (see Appendix 7), and 1 page of NIS-S adapted version (see Appendix 8). On average, the questionnaires were handed back to the researcher within one day to two weeks.

The answers of the NERIS Type Explorer test from each participant were entered to the website in order to get the personality type. Subsequently, the NIS-S questionnaires were scored based on the scoring system and norms enclosed in the website to determine the score and degree of nonverbal immediacy (low, moderate, or high immediacy).

### *3.5 Data analysis*

In this research, the data analysis was done by using the IBM SPSS Statistic version 25. After all the results and scores were input to SPSS, there were steps taken to make sure the data set was fully arranged to be analyzed before performing further analytical actions. Firstly, all the data were labeled and coded. For example, 1 for extroverted and 2 for introverted. Secondly, for the nonverbal immediacy questionnaires results, each negative item was reversed into a positive one and made into a new variable. Thirdly, new variables were created by grouping the items from nonverbal immediacy questionnaires based on 6 nonverbal categories which are touch, proximity, eye contact, tone of voice, gestures, and facial expressions (Andersen, 1979; McCroskey et al., 1995). For each nonverbal category variable, all the positive items, both the originally positive and the reversed ones, were combined into its respective nonverbal category and the average was counted. This was done separately for the general nonverbal immediacy and classroom nonverbal immediacy questionnaires. Fourthly, based on the new variables created from the previous step, new

variables were created by counting the difference between the classroom and general nonverbal immediacy average scores.

Once the data was arranged, the descriptive analysis was used. As the data in this study was non-parametric and the sample size was relatively small, Pearson chi-square was used by applying the Fisher's exact test to answer the first research question about the correlation between Finnish ECE teachers' personality types and their general nonverbal immediacy. The degree of freedom, the chi-square statistic, the correlation statistic, and the observed frequency test were also computed. For the second research question, comparing means Mann-Whitney U-test was used. The variables consisting of differences between the general and classroom nonverbal categories were regarded as the test variables and personality type variable was regarded as the grouping variable.

### *3.6 Ethics*

Referring to the ethical guideline for research, the researcher took several steps in order to protect the rights and confidentiality of the participants. Firstly, the informed consent form was given to each participant before they participated further in this study. The informed consent ensured that participants had known the following aspects: the full understanding and the opportunity to ask questions about the study, their participation was voluntary without any enforcement, their rights to withdraw from the participation at any time without reasons and without getting any negative consequences, and the confidentiality in which only the researcher had the access to the responses from the participants. The inquiry regarding the possibility to use the responses for future research projects was also stated in the informed consent form.

Secondly, all questionnaires were anonymous. The participants were not expected to provide their names and their daycare centers in the questionnaires. However, with the purpose of providing the demography information, the researcher used color coding to keep track of the daycare centers where the participants were from. Only the researcher knew the list of color representation used. Moreover, since the questionnaires required no personal information, the responses that were input to the SPSS program were also anonymous.

Thirdly, as several participants denied the possibility to use their responses for future studies, the researcher destroyed the hard copy of the questionnaires and the soft copy of the data was deleted following the completion of the study. This action was taken to avoid misappropriation of the data by irresponsible parties and to fulfil the ethical agreement proposed by the researcher to the participants.

## 4 FINDINGS

This chapter presents the findings drawn from the data analysis according to the two main research questions: (1) If any, what kind of relations are there between Finnish ECE teachers' personality types and their self-perceived nonverbal immediacy? and (2) Are there any distinguished nonverbal behaviour patterns between the extrovert and introvert teachers when they are interacting with the children? The findings will be presented based on the order of the research questions mentioned above and further discussion regarding these findings will be addressed.

### *4.1 Relations between Finnish ECE teachers' personality types and their self-perceived nonverbal immediacy*

As mentioned in the previous chapter, with the intention of answering the first research question, the personality types and general nonverbal immediacy data were analysed. The results as shown in Table 3 and 4 demonstrated that the participants' personality types had very weak positive correlation with their general self-perceived immediacy ( $r=.19$ ). The Fisher's exact test estimated value (2.942) that illustrated the proportional differences of personality types in comparison to the nonverbal immediacy was shown to be not statistically significant ( $p>.05$ ). This result denoted that the personality type of the participants does not always determine their nonverbal immediacy in their general lives. Even more than half of both extrovert and introvert teachers indicated moderate degree of nonverbal immediacy (see Table 2).

**TABLE 2.** Descriptive statistic of personality and nonverbal

		Degree of Nonverbal Immediacy			Total
		High	Moderate	Low	
Personality Type	Extroverted	5	11	4	20
	Introverted	0	8	2	10
Total		5	19	6	30

**TABLE 3.** Personality and nonverbal Fisher's exact test

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	3.158	2	.206	.283		
Likelihood Ratio	4.689	2	.096	.209		
Fisher's Exact Test	2.942			.283		
Linear-by-Linear Association	1.102	1	.294	.356	.232	.148
N of Valid Cases	30					

Note. df = degree of freedom.

**TABLE 4.** Personality and nonverbal Pearson's correlation

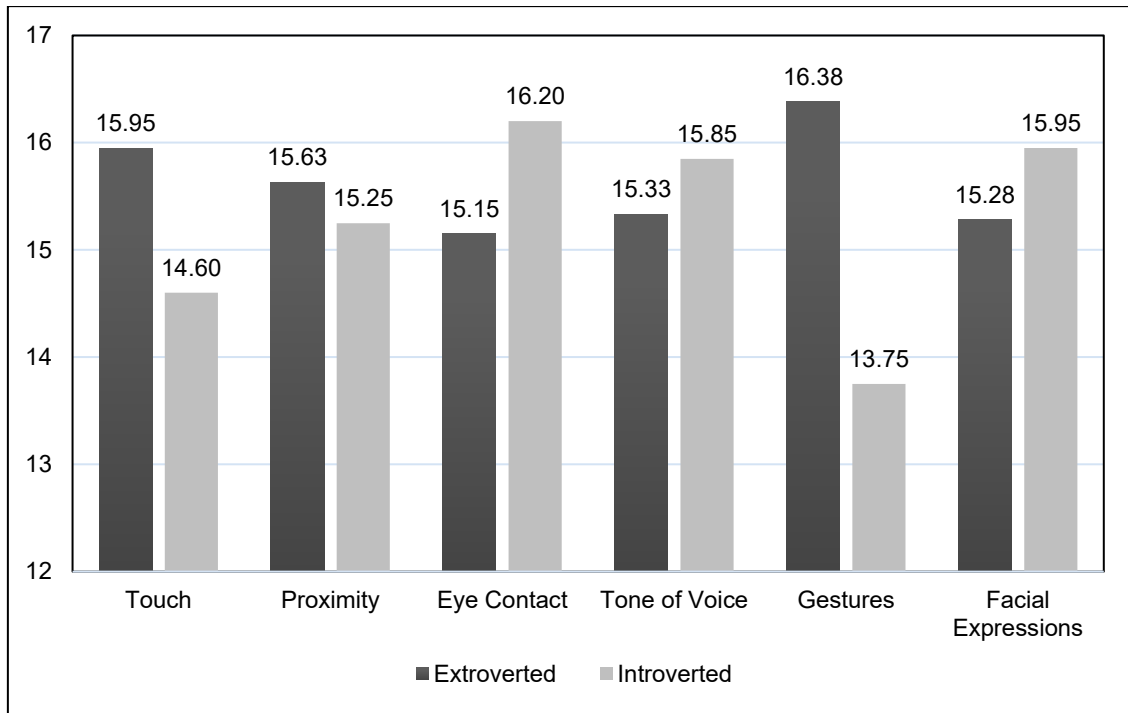
	Value	Asymp. Standard Error	Approximate T	Approximate Significance	Exact Significance
Interval by Interval Pearson's r	.19	0.15	1.05	.302	.356
N of Valid Cases	30				

#### 4.2 Nonverbal behaviour patterns of Finnish ECE teachers based on their personality types

For the second research question, the result was drawn from comparing the means of nonverbal immediacy in general lives and in the classroom. Based on the result of mean ranks shown in Table 5 and Figure 1, extrovert group showed a bigger increase in touch, proximity, and gesture category compare to the introvert group in the classroom. On the other hand, the introvert group showed bigger increase in eye contact, tone of voice, and facial expressions in the classroom compare to the extrovert group. However, as shown in Table 6, all nonverbal categories demonstrated no statistical significance in relation to its increase according to the personality types ( $p > .05$ ). Thus, it can be concluded that there is no distinct nonverbal behaviour pattern between extrovert and introvert Finnish ECE teachers when they interact with the children in the classroom instructional setting. Yet, both personality types showed increases in all nonverbal categories when interacting with children in the class compare to when they are outside of the class.

**TABLE 5.** The increase of nonverbal based on personality

Nonverbal Immediacy	Personality Types	N	Mean Rank	Sum of Ranks
Touch	Extroverted	20	15.95	319.00
	Introverted	10	14.60	146.00
Proximity	Extroverted	20	15.63	312.50
	Introverted	10	15.25	152.50
Eye Contact	Extroverted	20	15.15	303.00
	Introverted	10	16.20	162.00
Tone of Voice	Extroverted	20	15.33	306.50
	Introverted	10	15.85	158.50
Gestures	Extroverted	20	16.38	327.50
	Introverted	10	13.75	137.50
Facial Expressions	Extroverted	20	15.28	305.50
	Introverted	10	15.95	159.50



**FIGURE 1.** Mean ranks of nonverbal increase based on personality

**TABLE 6.** Mann-Whitney U-test significance of nonverbal

	Touch	Proximity	Eye Contact	Tone of Voice	Gestures	Facial Expression
Mann-Whitney U	91.000	97.500	93.000	96.500	82.500	95.500
Wilcoxon W	146.000	152.500	303.000	306.500	137.500	305.500
Z	-0.404	-0.111	-0.312	-0.157	-0.776	-0.206
Asymp. Sig. (2-tailed)	.686	.912	.755	.875	.438	.837
Exact Sig. [2*(1-tailed Sig.)]	.713	.914	.779	.880	.448	.846
Exact Sig. (2-tailed)	.691	.940	.770	.881	.426	.952
Exact Sig. (1-tailed)	.341	.470	.384	.440	.213	.475
Point Probability	.003	.009	.011	.008	.007	.012



### 4.3 Discussion

In this study, the association between the personality types and nonverbal immediacy as well as the possible nonverbal behaviour patterns displayed by the Finnish ECE teachers in the class were examined. The findings contradict some of the previous studies, yet, it provides the new insights regarding the more influencing factors of nonverbal immediacy that can contribute to the literature.

#### 4.3.1 Relations between Finnish ECE teachers' personality types and their self-perceived nonverbal immediacy

Regarding the first research question about the relations between Finnish ECE teachers and their self-perceived nonverbal immediacy, the data analysis suggested that there was a very weak positive correlation between the two variables. This demonstrated that the extroversion and introversion personality of the teachers do not consistently influence their nonverbal immediacy in their general lives. Especially, based on the descriptive result, the majority of participants, both the extrovert and introvert teachers showed a moderate degree of nonverbal immediacy. This result seems in contrast with the previous studies which stated that extrovert individuals show higher degree of nonverbal behaviours while the introvert ones show otherwise (Argyle, 1988; de Vries et al., 2013; Amir et al., 2015; Jansen, 2016). However, the result still revealed the existence of positive correlation between the two variables, even though very weak. Thus, it does not entirely oppose the previous studies.

Furthermore, to justify the contradicting result, the cultural differences might be able to provide the reason. From the perspective of culture, this study is thought-provoking as it investigated how strong the personality types might influence one's nonverbal immediacy in a reserved, noncontact culture society. The strong association between teachers' personality types and nonverbal immediacy demonstrated in the previous study might be because the study was conducted in Iran which belongs to expressive and high contact culture (Amir et al., 2015). Consequently, the participants have more freedom in expressing nonverbal behaviours according to their personality. However, as Finland is a part of the reserved and noncontact culture (Hall, 1969), this might be the reason that the current study yielded such a result. Since Finnish teachers are bound to the

construct of nonverbal immediacy in the reserved, noncontact society, they adjust their nonverbal communication to suit the norms in the culture, regardless how extroverted they are. The cross-cultural studies found that among the other participating countries, Finnish students were indeed the most nonimmediate and less expressive nonverbally (e.g. McCroskey et al., 1995; McCroskey et al., 1996). Drawing from the results of previous and current study, thus, the researcher argues that the cultural norms have stronger relations with nonverbal immediacy than the personality types.

Another possibility of having this contradictory result is due to the self-assess instruments used in the current study. As anticipated by the researcher, this type of instrument might provide dubious results. When presented with this kind of instrument, the participants have the tendency to provide answers based on what they perceive as the truth, but not the truth itself as their own perception about themselves might differ from others' perception and their real personality (Alavinia & Hassanlou, 2014). The same goes for the self-perceived nonverbal questionnaires in which the participants might provide answers according to their perception of socially accepted nonverbal communication rather than their real nonverbal tendencies. However, if that being the case, this substantiates the researcher's argument regarding the stronger relations between nonverbal immediacy and culture. This suggests that there is a possibility wherein the participants are aware of the acceptable nonverbal communication norms in the Finnish culture and thus, attempted to project themselves as so in the questionnaires. Yet, the inadequacy of the samples could also be the reason.

#### 4.3.2 Nonverbal behaviour patterns of Finnish ECE teachers based on their personality types

The second research question about the nonverbal behaviour patterns displayed by the Finnish ECE teachers based on their personality types generated a contradicting result. Previous studies stated that extroverted individuals express higher degree of nonverbal cues in all 6 classifications which are touch, proximity, eye contact, tone of voice, gestures, and facial expressions in general life (Andersen, 1979; McCroskey et al., 1995; Ting-Toomey, 2010; Young, 2011) and in the classroom setting (Amir et al., 2015). However, the finding of the current

study showed that extroverted Finnish ECE teachers display greater increase in touch, proximity, and gestures category while introverted teachers showed greater increase in eye contact, tone of voice, and facial expression. Yet, these results are not statistically significant and thus, it can be concluded that there are no distinct nonverbal behaviour patterns regardless of their personality types as theorized in the previous studies. The small sample size could be the reason of statistically insignificant result of this nonverbal behaviour pattern. Also, even though seems like an anomaly, these results can be justified or even support the theories of personality and nonverbal immediacy.

Firstly, the finding demonstrated that the introverted teachers put roughly as much efforts as the extroverted teachers during the interaction with the children in the classroom. According to the previous literature, reserved and noncontact culture which are associated with introversion commonly show stiff body position, monotonous voice, fewer facial expressions, avoid direct eye contact, less touch, and keep more distance from the interlocutor (Lustig & Koester, 2003; Young, 2011). However, the cause of the notable increases in all nonverbal categories displayed by the introvert teachers might be the reflective characteristic of introverted individuals (Eysenck as cited in Costa & McCrae, 1986). As these teachers notice their weaknesses, thus, they attempt to show more of these nonverbal cues to make up for their shortcomings. Therefore, this also suggests the possible awareness of Finnish ECE teachers towards their personality types and its characteristics.

Secondly, another significant point that can be drawn from these results is, both extroverted and introverted Finnish ECE teachers show increase in all categories of nonverbal cues in compare to when they are outside of the class. Young children have the preference towards immediate teachers (Saracho, 2003) and they need nonverbal immediacy to promote their sense of security, holistic development, and to build positive relationships with the teachers (Carlson, 2006; Park, 2013; Buckley, 2003). The increase in overall nonverbal immediacy displayed by the Finnish ECE teachers demonstrated their awareness towards the importance of nonverbal immediacy in ECE and the expectations of their occupation. Thus, they put an effort to adjust their behaviours to meet the needs of the children and to fulfil the expectancy of ECE. Especially, the provision of warm and supportive relationship for the children is one of the basic goals

established in Finnish ECE curriculum (Finnish National Agency for Education, 2017). Thus, this result can prove the effort taken by the ECE teachers to achieve the goal stated in the curriculum.

Lastly, the overall increase of nonverbal behaviour in the classroom also supports the theory regarding fluidity of both nonverbal immediacy and personality types. The previous studies noted that nonverbal behaviours are influenced by the training and the nature of one's profession (as cited in Wong & Li-fang, 2013; Nussbaum, 1984; Richmond & McCroskey, 2000) and the personality fluctuates as a form of adaptation towards the formal education received and life situations (as cited in Pulkkinen & Caspi, 2002; Miller, 1991). The result proves that as these teachers adapt to their working environment which requires more extroverted attitudes and higher degree of nonverbal immediacy, they are able to change their behaviour as needed. Thus, this justifies the established theories drawn from the previous studies regarding the unfixed disposition of both variables.

In conclusion, this study offers significant contributions in the literature by supporting several previous theories while also providing new insights into the nonverbal immediacy within the context of high nonverbally expected occupation in a reserved and noncontact culture, which is Finnish ECE setting. Aside from personality types, the result of this study proposed the other possible factors that have stronger influences to nonverbal immediacy within the aforementioned context. The factors highlighted in the current study include culture, education, and the nature of ECE profession.

# 5 CONCLUSION AND IMPLICATIONS

This chapter presents the overview of the current study. The objectives of the study and the key findings are restated. Then, limitations of the current study and suggestions to help expanding the future research will also be explained. In the last subchapter, the theoretical and practical implications will be presented.

## *5.1 Summary of the study*

This study aimed to investigate the following questions: (1) If any, what kind of relations are there between Finnish ECE teachers' personality types and their self-perceived nonverbal immediacy? and (2) Are there any distinguished nonverbal behaviour patterns between the extrovert and introvert teachers when they are interacting with the children?

According to the findings, several conclusions were drawn. Firstly, nonverbal immediacy has stronger relation with culture than personality types. This inference was taken from the finding of the first research question in which the correlation between personality types and nonverbal immediacy was shown to be very weak. As Finland belongs to the reserved and noncontact culture, these cultural norms seemed to have stronger influence on the nonverbal immediacy rather than the personality types. This first conclusion was in contrast with the result of previous studies that stated extroverted individuals show higher degree of nonverbal immediacy while introverted individuals are less nonverbal (Argyle, 1988; de Vries et al., 2013; Amir et al., 2015; Jansen, 2016). However, the self-report instruments used and the inadequacy of samples might also affect the outcome of this study.

Secondly, regarding the second research question, in comparison to the extroverted teachers, introverted Finnish ECE teachers demonstrated as much efforts in utilizing all aspects of nonverbal immediacy when communicating with the children in the class. Aside from the small sample size which might be the

cause of statistically insignificant result, there are several justifications can be proposed for this contradicting result. Based on the literature, introverted show fewer nonverbal cues, yet often reflect on their actions (Lustig & Koester, 2003; Young, 2011; Eysenck as cited in Costa & McCrae, 1986). Therefore, the increases on nonverbal immediacy displayed by the introverted teachers might be due to the natures of its personality type which supported the personality theories depicted in the previous studies. However, there is a possibility that the awareness of their personality and its characteristics might be the cause of this result.

Thirdly, Finnish ECE teachers are aware of the importance of nonverbal immediacy and the expectation of their profession. Since both personality types demonstrated increases in all nonverbal behaviour categories, it can be concluded that the Finnish ECE teacher participated in this study are conscious of the expectation in providing supportive relationship with their students as stated in the Finnish ECE curriculum (Finnish National Agency for Education, 2017).

Lastly, nonverbal immediacy and personality types are fluid in nature. The overall increase in nonverbal immediacy in the classroom signified the behavioural adjustment done by the ECE teachers to suit their working environment which demands more extroverted attitudes and higher degree of nonverbal immediacy. This finding supported the literature which emphasized the adaptability of nonverbal immediacy and personality in accordance to the training, occupation, education, and environment (as cited in Wong & Li-fang, 2013; Nussbaum, 1984; Richmond & McCroskey, 2000; as cited in Pulkkinen & Caspi, 2002; Miller, 1991).

## *5.2 Limitations and suggestions for future research*

Despite the substantial findings contributed by this study, the results should be interpreted from the point of view of limitations in methodology and sampling. First, this study used a single source of data which was derived from self-report instruments. Thus, additional source of data such as from observation might help increase the validity of the data. However, the observation should be cautiously considered to avoid cultural misinterpretation of the observed behaviours.

Second, the data of this study was taken from the sample of 30 Finnish ECE teachers from 9 daycare centers in Tampere region. Due to the small sampling, the result of this study cannot be generalized. Hence, further studies with bigger sampling are needed to produce the more representative findings.

Nevertheless, regardless of the limitations, this study provides findings that can set paths for future research in nonverbal immediacy, especially in the Finnish context. Applying mixed method approach in the future study can be useful to qualitatively assess the perception and influencing factors of nonverbal immediacy. This will help to obtain a richer set of data in attempt to gain a deeper and holistic understanding of this construct.

### *5.3 Theoretical and practical implications*

Nonverbal immediacy is known as one of the ways to enhance learning through the benefits it gives to the student's development. Thus, the main idea of exploring the relations between teachers' personality types and their nonverbal immediacy is to study the personal characteristics that can boost the nonverbal behaviours of the teachers. This study significantly contributes to the knowledge of nonverbal immediacy in relation to personality and other possible factors, as well as offers several practical implications.

From the theoretical point of view, firstly, this study suggests a new understanding of a potentially key factor of nonverbal immediacy. The finding depicted that personality type cannot be regarded as the key factor which determines the degree of nonverbal immediacy expressed. Instead, culture might play a bigger role in defining one's nonverbal behaviours, especially in a reserved and noncontact culture.

Secondly, some findings drawn from this study support the previous studies in both nonverbal immediacy and personality construct. The contradicting nonverbal behaviour patterns defined in the finding opposes the theories of relations between the two constructs (Argyle, 1988; de Vries et al., 2013; Amir et al., 2015; Jansen, 2016) and proposes the new insight about the stronger influence of culture toward nonverbal immediacy. However, it confirms the theories of personality traits. Specifically, the increases of nonverbal immediacy demonstrated by introverted teachers mirrored the introversion traits explained in

the previous studies (Lustig & Koester, 2003; Young, 2011; Eysenck as cited in Costa & McCrae, 1986). Moreover, the fluidity theories of nonverbal immediacy and personality were also confirmed. As the findings suggested that Finnish ECE teachers are aware of the significance of nonverbal immediacy and the expected behaviours in their working environment, the adaptability theories regarding the nonverbal immediacy and personality were verified. These two constructs are not definitive and are influenced by training, occupation, education, and environment (as cited in Wong & Li-fang, 2013; Nussbaum, 1984; Richmond & McCroskey, 2000; as cited in Pulkkinen & Caspi, 2002; Miller, 1991).

Thirdly, the current findings provide an empirical evidence for reflective insight regarding the nonverbal immediacy of Finnish ECE teachers. This will be essential to monitor the efforts of ECE teachers in providing supportive relationships with the students as stated in Finnish ECE curriculum (Finnish National Agency for Education, 2017).

Furthermore, practically, this study suggests implications for the pre-service and in-service ECE teachers. Providing more theoretical and practical knowledge regarding nonverbal immediacy as well as familiarizing the expectations of the profession for the pre-service teachers should be implemented in the faculty of education. As the benefit of training in improving nonverbal immediacy is acknowledged by researchers (Nussbaum, 1984; Richmond & McCroskey, 2000), giving practical knowledge during the teacher training will help the pre-service teachers to acquire the skills in incorporating proper nonverbal cues in the classroom later on. Moreover, the findings of this study can also be used by the daycare centers for preparing the in-service teachers towards the increasingly diverse society. The cultural feature of nonverbal immediacy depicted in the result of this study demands the provision of cross-cultural nonverbal communication training for the in-service teachers to ensure the ability in providing culturally appropriate nonverbal cues for children from various cultural backgrounds.



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
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# APPENDICES

## *Appendix 1: Research Permission Email for Daycare Centers*

Gathering data for my thesis

2 ✓ 



Angeline Iskandar


Mon 11/18/2019 8:40 AM

To: 



Short Research Proposal for P...  
190 KB

Hi miss,

my name is Angeline and I got your email address from the kindergarten website. I am a second-year student of Master Degree Program in Teacher Education, Tampere University. Through this email, I would like to ask permission to gather the data for my master's thesis in  I attached the short proposal explaining the detail information about my research topic and data gathering process. If you have further questions about the research, do not hesitate to ask me and if you and the teachers in your kindergarten are willing to be the participants, kindly let me know the documents you need (permission letter, etc).

Kindly let me know if you and the teachers there are willing to be my participants. Also, all the questionnaires are in Finnish, so do not worry about the language :)

Looking forward to your reply.

Thank you.

Regards,

Angeline Iskandar

## *Appendix 2: Short Research Proposal*

### **The Relations Between Kindergarten Teachers' Personality Types and Their Self-Perceived Nonverbal Immediacy**

#### **Introduction**

In Finnish early childhood curriculum, the provision of supportive personal relationships for each student is one of the basic goals for early childhood education (Finnish National Agency for Education, 2017). However, the teachers' ability to establish the positive relationship with the students is affected by several factors and one of them is the personality types (Baker, 2006). Thus, understanding their personality types and being aware of their nonverbal behavioural tendency might be helpful for the kindergarten teachers to establish a better student-teacher relationship.

#### **Aim**

This research aims at understanding the nonverbal immediacy and its relations to the personality types of Finnish kindergarten teachers.

#### **Data Gathering**

##### **Participants**

The participants for this present study will be taken from five to ten kindergartens in Pirkanmaa area and the number of participants will be decided according to the total number of teachers in each kindergarten.

##### **Measurements**

To gather the data, there will be two measurements used which are personality test (from [www.16personalities.com](http://www.16personalities.com)) and Nonverbal Immediacy Scale Self-Report.

##### **Procedure**

First, the participants will be asked to fill in the personality test that will take approximately 15 minutes and followed by the Nonverbal Immediacy Scale Self-Report for outside and inside the classroom that will take approximately 10 minutes. The whole process can be done in a day. The examples of the tests are provided in Appendix A, B, and C.

#### **Ethics**

As the researcher, I assure that the names of the participants and the kindergartens will not be collected and published in the research report. The data can only be accessed by me and it will be stored safely for future research.

#### **Expected Results and Implication**

The result of this present study is expected to help the kindergarten teachers to be aware of their personality types and nonverbal behavioural tendency in order to establish better teacher-student relationship. In addition, it is expected to raise the awareness of the kindergarten teacher education institution to include the knowledge of nonverbal immediacy to prepare their future teachers.

## Appendix A

### Personality Test

You enjoy vibrant social events with lots of people.

Agree        Disagree

---

You often spend time exploring unrealistic yet intriguing ideas.

Agree        Disagree

---

Your travel plans are more likely to look like a rough list of ideas than a detailed itinerary.

Agree        Disagree

---

You often think about what you should have said in a conversation long after it has taken place.

Agree        Disagree

## Appendix B

### Nonverbal Immediacy Scale Self-Report (Outside the classroom)

- \_\_\_ 1. I use my hands and arms to gesture while talking to people.
- \_\_\_ 2. I touch others on the shoulder or arm while talking to them.
- \_\_\_ 3. I use a monotone or dull voice while talking to people.
- \_\_\_ 4. I look over or away from others while talking to them.
- \_\_\_ 5. I move away from others when they touch me while we are talking.

## Appendix C

### Nonverbal Immediacy Scale Self-Report (Inside the classroom)

- \_\_\_ 1. I use my hands and arms to gesture while talking to my students.
- \_\_\_ 2. I touch others on the shoulder or arm while talking to them.
- \_\_\_ 3. I use a monotone or dull voice while talking to my students.
- \_\_\_ 4. I look over or away from others while talking to them.
- \_\_\_ 5. I move away from my students when they touch me while we are talking.

## Appendix 3: Request Letter for Municipality Research Permission



21 October 2019

To: [REDACTED]  
Head of Education and Teaching, Tampere Municipality

### REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN THE KINDERGARTENS

Dear [REDACTED]

My name is Angeline Iskandar and I am a second-year student of Master Degree Program in Teacher Education, Tampere University. The research for my master's thesis is related to the correlation between kindergarten teachers' personality types and their nonverbal immediacy. This research will be conducted under the supervision of [REDACTED], the Head of Teacher Education, Tampere University.

I am hereby seeking your permission to gather the data from the kindergarten teachers in Pirkanmaa region for this research. The kindergartens that I have planned to include in this research are [REDACTED]  
[REDACTED] However, there might be some additions on the list of kindergartens if I can get more contact persons in the future. I have provided the copy of my short research proposal to provide details about my research and the example of the instruments that I will use to gather the data.

If you require further information, do not hesitate to contact me [REDACTED]  
[REDACTED]

Thank you for your time and consideration in this matter.

Regards,

[REDACTED]

Angeline Iskandar

## Appendix 4: Municipality Research Permission Approval Email

### TUTKIMUSLUPAHAKEMUS

Getting too much email? [Unsubscribe](#)



tutkimus@tampere.fi  
Mon 11/18/2019 7:48 AM  
To: Angeline Iskandar



Hei, tutkimuslupahakemuksesi "The Correlation Between Kindergarten Teachers? Personality Types and Their Self-Perceived Nonverbal Immediacy" on käsitelty seuraavin tiedoin. Tämä viesti on lähetetty tiedoksi myös tutkimuksesi yhteyshenkilölle kaupungissa sekä tutkimuksesi ohjaajalle, jos kyseessä on opinnäytetyö.

Hakija 1:  
Sukunimi: Iskandar

Etunimi: Angeline

Organisaatio: Tampereen yliopisto, Kasvatustieteiden ja kulttuurin tdk

Osoite: 33014 Tampereen yliopisto

Puhelinnumero: [REDACTED]

Sähköpostiosoite: [REDACTED]

Hakija 2:  
Sukunimi:

Etunimi:

Organisaatio:

Osoite:

Puhelinnumero:

Sähköpostiosoite:

Hakija 3:  
Sukunimi:

Etunimi:

Organisaatio:

Osoite:

Puhelinnumero:

Sähköpostiosoite:

Tutkimus- tai oppilaitos: Tampereen yliopisto

Koulutusohjelma: MA in Teacher Education

Tutkimuksen taso: Pro gradu

Mikä muu?:

Opinnäytetyönä tehtävän tutkimuksen ohjaaja oppilaitoksessa:

Sukunimi: [REDACTED]

Etunimi: [REDACTED]

Oppilaitos: Tampereen yliopisto

Oppiarvo ja ammatti: FT, professori

Toimipaikka ja osoite: [REDACTED]

Puhelinnumero: [REDACTED]

Sähköpostiosoite:

Opettaja on hyväksynyt tutkimussuunnitelman: Kyllä

Yhteyshenkilö tai henkilöt Tampereen kaupungissa:

1. Nimi: [REDACTED]

1. Yksikkö: Kasvatus- ja opetuspalvelut

1. Puhelin: [REDACTED]

1. Sähköposti: [REDACTED]

2. Nimi:

2. Yksikkö:

2. Puhelin:

2. Sähköposti:

Muut yhteyshenkilöt:

Tutkimuksen nimi: The Correlation Between Kindergarten Teachers' Personality Types and Their Self-Perceived Nonverbal Immediacy

Tutkimuksen lyhyt kuvaus (keskeiset tavoitteet, tutkimusmenetelmät, kohderyhmä): Main Objectives: This research aims at understanding the nonverbal immediacy and its relations to the personality types of Finnish kindergarten teachers.

Research Methods:

1. Measurements

To gather the data, there will be two measurements used which are personality test (from [www.16personalities.com](http://www.16personalities.com))



## Free personality test, type descriptions, relationship and career advice | 16Personalities

Observant (S) and Judging (J) personality types, known for their practicality and focus on order, security, and stability.

[www.16personalities.com](http://www.16personalities.com)

) and Nonverbal Immediacy Scale Self-Report.

### 2. Procedure

The participants will be asked to fill in the personality test that will take approximately 15 minutes and followed by the Nonverbal Immediacy Scale Self-Report for outside and inside the classroom that will take approximately 10 minutes. The whole process can be done in a day.

### Target Group:

The participants for this present study will be taken from five to ten kindergartens in Pirkanmaa area and the number of participants will be decided according to the total number of teachers in each kindergarten.

Tutkimukselle aiemmin myönnetty tutkimuslupa (esim. valtakunnalliset tutkimushankkeet tai Tampereen kaupungin tutkimuslupa):

muokkaa

Pääasiallinen tutkimustapa/menetelmä:

Kysely: Kyllä

Haastattelu: Ei

Havainnointi: Ei

Asiakirja-/tilastoanalyysi: Ei

Muu, mikä: Ei

Mikä muu?:

Osallistuminen: Ei

Henkilötietopohjainen tutkimus...: Ei

Edellyttääkö lupa eettisen toi...: Ei

Minkä eettisen toimikunnan?:

Myönteisen lausunnon päivämäärä:

Käsittely kesken, päiväys:

Kielteisen lausunnon päivämäärä:

Aineiston keruu alkaa:

Aineiston keruu päättyy:

Tutkimuksen arvioitu valmistumisaika:

Lisätietoja:

Rekisteritietojen käyttö: Ei

Effica:

Pegasos:

SAP HR:

RAI:

Muu:

Tarkenna, mihin järjestelmä kohdentuu:

Aloituspäivämäärä:

Päätymispäivämäärä:

Tarkenna, mihin järjestelmä kohdentuu:

Aloituspäivämäärä:

Päätymispäivämäärä:

Aloituspäivämäärä:

Päätymispäivämäärä:

Aloituspäivämäärä:

Päätymispäivämäärä:

Tarvittavat asiakirjatiedot, mitä tietoja ja mistä:

Lisätietoja:

Tutkimusaineisto ei sisällä tunnistetietoja: Kyllä

Tunnistetiedot poistetaan analysointivaiheessa: Ei

Aineisto analysoidaan tunnistetiedoin: Ei

Peruste tunnistetietojen säilyttämiselle:

Sähköinen arkistointi: Ei

Paperinen arkistointi: Kyllä

Aineiston arkistointipaikka:

Aineistoa kuvaavat asiasanat (YSA):

Aineiston jatkokäyttöä koskevista tiedusteluista vastaava henkilö:

Päiväys: 11.11.2019

Allekirjoitus: Angeline Iskandar

Tutkimussuunnitelma: Kyllä

Kysely-/haastattelulomake: Kyllä

Muu aineistonkeruuseen liittyvä materiaali: Kyllä

Hakemus tietojärjestelmien käyttöoikeuksiin: Ei

Tietojen ja tietojärjestelmien käyttö- ja salassapitositoumus: Ei

Eettisen toimikunnan lausunto: Ei

Henkilötietolain mukainen rekisteriseloste: Ei

Muu liite: Ei

Liitteen/liitteiden nimi: 1. Short Research Proposal for Permission-Angeline Iskandar.pdf

2. Personality Test-Finnish.pdf

3. NIS Finnish.docx

4. NIS Finnish-Classroom.docx

5. Informed Consent.docx

Tutkimus voidaan julkaista Tampereen kaupungin Internet-sivuilla: Tutkimusta ei voida julkaista Tampereen kaupungin Internet-sivuilla

Tutkimus on salassapidettävä: Tutkimus ei ole salassapidettävä

Tutkimus on salassapidettävä Tutkimus ei ole salassapidettävä

Tutkimusluvan myöntäminen Tutkimuslupa myönnetään

Päiväys 18.11.2019

Allekirjoitus ja virkanimike [REDACTED], kasvatus- ja opeutuspäällikkö

Kielteisen päätöksen perustelut ja valitusosoitus

Lisätietoja

Ystävällisin terveisin ja onnea tutkimuksellesi.

Tietojohtamispalvelut

tutkimus@tampere.fi



## Appendix 6: NERIS Type Explorer Personality Questionnaire

Sukupuoli (ympyröi): M / N	Ikä: _____
----------------------------	------------

Vastaa rehellisesti: silloinkin, kun et pidä vastauksesta.

Yritä välttää: "neutraaleja" vastauksia.

Laita X ympyrän sisään, joka edustaa vastausta.

<p>Sinun on vaikea esitellä itsesi muille.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Olet usein niin ajatuksissasi, että sivuutat tai unohdat ympäristösi.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Yrität vastata sähköposteihin mahdollisimman pian, etkä voi sietää sotkuista postilaatikkoa.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Sinun on helppo pysyä rentoutuneena ja keskittyneenä vaikka olisit paineen alaisena.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Et yleensä aloita keskusteluja.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Teet harvoin mitään pelkästä uteliaisuudesta.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Tunnet olevasi parempi kuin muut ihmiset.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Järjestys on tärkeämpää sinulle kuin olla joustava.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Olet yleensä erittäin motivoitunut ja energinen.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>

<p><b>Keskustelun voittaminen merkitsee sinulle vähemmän kuin sen varmistaminen, että kukaan ei järkyty.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Sinusta tuntuu usein siltä, että sinun pitää perustella näkemyksiäsi muille.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Kotisi ja työympäristösi ovat melko siistejä.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Olet mielelläsi huomion keskipisteenä.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Pidät itseäsi enemmän käytännöllisenä kuin luovana.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Muut ihmiset voivat harvoin järkyttää sinua.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Matkasuunnitelmasi ovat yleensä hyvin harkittuja.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Sinun on usein vaikea ymmärtää muiden ihmisten tunteita.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Mielentilasi voi muuttua hyvin nopeasti.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Keskustelussa totuuden pitäisi olla tärkeämpää kuin ihmisten tunteiden.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Ajattelet harvoin siitä, miten toimintasi vaikuttaa muihin ihmisiin.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>

<p><b>Työsi tyyli muistuttaa enemmän satunnaisia energiapiikkejä kuin järjestelmällistä ja järjestäytyntä lähestymistapaa.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Kadehdit usein muita.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Mielenkiintoinen kirja tai videopeli on usein parempi kuin sosiaalinen tapahtuma.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Mahdollisuus kehittää suunnitelma ja pitää siitä kiinni on tärkein osa jokaista projektia.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Innostut harvoin fantasioista ja oudoista näkemyksistä.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Huomaat olevasi usein ajatuksissasi, kun kävelet luonnossa.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Jos joku ei vastaa sähköpostiisi nopeasti, alat huolestua siitä sanoitko jotain väärin.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Vanhempana haluat nähdä lapsesi kasvavan kiltiksi ennemmin kuin älykkääksi.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Et anna muiden ihmisten vaikuttaa toimiisi.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Unelmasi liittyvät etupäässä reaali maailman ja sen tapahtumiin.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Osallistut nopeasti sosiaaliseen toimintaan uudella työpaikalla.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>

<p>Olet enemmän luonnollinen improvisoija kuin huolellinen suunnittelija.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Tunteesi hallitsevat sinua enemmän kuin sinä hallitset tunteitasi.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Nautit sosiaalisista tapahtumista, joihin pukeudutaan hienosti tai roolileikeistä.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Käytät usein aikaa tutkiaksesi ideoita, jotka ovat epärealistisia ja epäkäytännöllisiä, mutta kiehtovia.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Improvisoit mieluummin kuin käytät aikaa yksityiskohtaisen suunnitelman kehittämiseksi.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Olet melko varautunut ja hiljainen.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Jos sinulla olisi yritys, sinun olisi hyvin vaikeaa erottaa lojaaleja mutta heikosti suoriutuvia työntekijöitä.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Mietit usein syitä ihmisen olemassaoloon.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Logiikka on yleensä tärkeämpää kuin tunne, kun ruvetaan tekemään tärkeitä päätöksiä.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p>Vaihtoehtojen pitäminen auki on tärkeämpää kuin tehtävälisan pitäminen.</p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>



<p><b>Jos ystäväsi on surullinen jostain, tarjoat todennäköisemmin henkistä tukea kuin ehdotat tapoja käsitellä ongelmaa.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Tunnet harvoin olosi turvattomaksi.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Sinulla ei ole vaikeuksia luoda henkilökohtaista aikataulua ja pitää siitä kiinni.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Oikeassa oleminen on tärkeämpää kuin yhteistyö tiimityöskentelyssä.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Mielestäsi kaikkien näkemyksiä on noudatettava riippumatta siitä ovatko ne faktapohjaisia.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Tunnet itsesi energisemmäksi vietettyäsi aikaa ryhmässä.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Kadotat usein tavaroita.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Pidät itseäsi henkisesti vakaana.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Mielessäsi on aina uusia ideoita ja suunnitelmia.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Et pidä itseäsi uneksijana.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>
<p><b>Et voi yleensä rentoutua puhuessasi suuren väkijoukon edessä.</b></p> <p>Samaa mieltä <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Eri mieltä</p>

<b>Yleisesti ottaen luotat enemmän omaan kokemukseesi kuin mielikuvitukseesi.</b>	
Samaa mieltä	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
<b>Murehdit liikaa siitä mitä muut ihmiset ajattelevat.</b>	
Samaa mieltä	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
<b>Jos huone on täynnä, pysyt lähempänä seiniä välttäen keskusta.</b>	
Samaa mieltä	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
<b>Sinulla on taipumus viivyttellä, kunnes ei ole tarpeeksi aikaa tehdä kaikkea.</b>	
Samaa mieltä	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
<b>Tunnet olosi hyvin ahdistuneeksi stressaavissa tilanteissa.</b>	
Samaa mieltä	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
<b>Mielestäsi on palkitsevampaa olla pidetty kuin olla voimakas.</b>	
Samaa mieltä	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
<b>Olet aina ollut kiinnostunut epäsovinnaisista ja ristiriitaisista asioista, kuten kirjoista, taiteesta tai elokuvista.</b>	
Samaa mieltä	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
<b>Teet usein aloitteen sosiaalisissa tilanteissa.</b>	
Samaa mieltä	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>

## Appendix 7: NIS-S Questionnaire Original Version

<b><u>OHJEET: Seuraavat lausunnot kuvaavat tapoja, joita jotkut ihmiset käyttävät puhuessaan toisten kanssa. Laita ruutuun X merkitäksesi, missä määrin lausunto mielestäsi koskee sinua. Käytä 5-pisteistä asteikkoa oikealla.</u></b>		<b>1 = Ei milloinkaan 2 = Harvoin 3 = Silloin tällöin 4 = Usein 5 = Hyvin usein</b>				
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Käytän käsiäni elehtimiseen puhuessani ihmisille.					
2	Kosketan ihmisiä olkapäähän tai käsivarteen puhuessani heille.					
3	Käytän monotonista tai tasaista ääntä puhuessani ihmisille.					
4	Katson ihmisten ylitse tai ohitse puhuessani heille.					
5	Siirryn kauemmas ihmisestä, jos hän koskettaa minua kun puhumme toisillemme.					
6	Minulla on rento asento kun puhun ihmisille.					
7	Rypistän otsaani tai kurtistan kulmakarvojani puhuessani ihmisille.					
8	Välttelen katsekontaktia puhuessani ihmisille.					
9	Minulla on jännittynyt asento kun puhun ihmisille.					
10	Istun tai seison lähellä ihmisiä puhuessani heidän kanssaan.					
11	Ääneni on monotoninen tai tasainen kun puhun ihmisille.					
12	Käytän monipuolisesti erilaista äänenpainoa ja intonaatiota kun puhun ihmisille.					
13	Elehdin puhuessani ihmisille.					
14	Olen eloisa kun puhun ihmisille.					
15	Kasvoni ovat ilmeettömät kun puhun ihmisille.					
16	Siirryn lähemmäs ihmistä kun puhun hänelle.					
17	Katson ihmisiä silmiin puhuessani heille.					
18	Olen jäykkä kun puhun ihmisille.					
19	Äänenpainoni vaihtelee kun puhun ihmisille.					
20	Välttelen elehtimistä puhuessani ihmisille.					
21	Nojaan ihmisiä kohti kun puhun heille.					
22	Säilytän katsekontaktin ihmisiin puhuessani heille.					
23	Yritän olla istumatta tai seisomatta lähellä ihmisiä kun puhun heille.					
24	Nojaudun pois päin ihmisistä kun puhun heille.					
25	Hymyilen puhuessani ihmisille.					
26	Vältän koskettamasta ihmisiä kun puhun heille.					

## Appendix 8: NIS-S Questionnaire Adapted Version

<b>OHJEET: Seuraavat lausunnot kuvaavat tapoja, joita jotkut ihmiset käyttävät puhuessaan toisten kanssa. Laita ruutuun X merkitäksesi, missä määrin lausunto mielestäsi koskee sinua. Käytä 5-pisteistä asteikkoa oikealla.</b>		<b>1 = Ei milloinkaan 2 = Harvoin 3 = Silloin tällöin 4 = Usein 5 = Hyvin usein</b>				
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Käytän käsiäni elehtimiseen puhuessani oppilailleni.					
2	Kosketan oppilaitani olkapäähän tai käsivarteen puhuessani heille.					
3	Käytän monotonista tai tasaista ääntä puhuessani oppilailleni.					
4	Katson oppilaitteni ylitse tai ohitse puhuessani heille.					
5	Siirryn kauemmas oppilaastani, jos hän koskettaa minua kun puhumme toisillemme.					
6	Minulla on rento asento kun puhun oppilailleni.					
7	Rypistän otsaani tai kurtistan kulmakarvojani puhuessani oppilailleni.					
8	Välttelen katsekontaktia puhuessani oppilailleni.					
9	Minulla on jännittynyt asento kun puhun oppilailleni.					
10	Istun tai seison lähellä oppilaitani puhuessani heidän kanssaan.					
11	Ääneni on monotoninen tai tasainen kun puhun oppilailleni.					
12	Käytän monipuolisesti erilaista äänenpainoa ja intonaatiota kun puhun oppilailleni.					
13	Elehdin puhuessani oppilailleni.					
14	Olen eloisa kun puhun oppilailleni.					
15	Kasvoni ovat ilmeettömät kun puhun oppilailleni.					
16	Siirryn lähemmäs oppilastani kun puhun hänelle.					
17	Katson oppilaitani silmiin puhuessani heille.					
18	Olen jäykkä kun puhun oppilailleni.					
19	Äänenpainoni vaihtelee kun puhun oppilailleni.					
20	Välttelen elehtimistä puhuessani oppilailleni.					
21	Nojaan oppilaitani kohti kun puhun heille.					
22	Säilytän katsekontaktin oppilaihini puhuessani heille.					
23	Yritän olla istumatta tai seisomatta lähellä oppilaitani kun puhun heille.					
24	Nojaudun pois päin oppilaistani kun puhun heille.					
25	Hymyilen puhuessani oppilailleni.					
26	Vältän koskettamasta oppilaitani kun puhun heille.					