DEVELOPING CREATIVITY IN EARLY CHILDHOOD EDUCATION: A COMPARATIVE ANALYSIS OF TWO CASE STUDIES IN PRESCHOOLS IN THAILAND

by

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Abstract

The main aim of this study is to contribute to the understanding of the uses and development of creativity and the ways this is influenced by cultural context in two preschools in Thailand. The Four Ps model (Rhodes, 1961) is employed as a theoretical framework for the study and is based on the notion that creativity is the confluence of environment-centred variables and person-centred variables in developing individuals' understanding and appreciation of creativity. The research sets out to explore teachers' perceptions, understandings and beliefs about preschool children's creativity, to observe daily pedagogical approaches and to identify the environment-centred variables and person-centred challenges pertinent to children's creativity and creative practices in two preschool settings in Bangkok, Thailand.

Participants included two class teachers, an art teacher, a support teacher and 60 preschool children. The setting was chosen as I, the researcher, had previous experience of working there. Both schools placed importance on developing children's creativity and their own teaching strategies but differed in their approaches. One draws on a literature-based programme and the other applies scientific thinking skills and thinking-process skills as part of the curriculum as a means of enhancing creativity.

The data was gathered through participant observation, interviews with class teachers, analysis of school curriculum documents and lesson plans, and the examination of photographs of children's actions and artefacts. The data analysis involves a systematic comparative examination of preschool teachers' practices, understanding of creativity, and consideration of influences that support or hinder children's creativity. The thematic analysis is based upon research questions which investigate 1) conception and perception of creativity; 2) creativity and pedagogical approach; 3) creativity and school environment; and 4) the potential barriers that inhibit the development of creativity in Thai preschools.

Selected case studies are used to illustrate the socio-cultural contextual similarities, differences, and implications for action in order to enhance creativity in preschools in Thailand and in the wider world of early education. In doing so, this exploratory study reveals new insights and lessons that may be learned relating to the foundations of embedding creativity in preschools in Thailand: in particular, the variety of pedagogies which contribute to the development of creativity in the classroom, the various ways that creativity can be developed in young children, the importance of a creative climate, and the effects of the social and cultural context in developing creativity.

Keywords: creativity, culture, young children, preschool, early childhood education

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Chapter 1: Introduction

This thesis focuses on the exploration of the concept of creativity in two preschool settings in Thailand. This introductory chapter will provide various definitions of creativity, culture and early childhood education within the context of Thailand, as pertinent to the study. The research context and research questions will be shared as well as an overview of my own positionality. The chapter also includes an outline of the contribution to knowledge that this thesis makes. Finally, this introductory chapter sets out a brief overview of the other chapters that will follow.

1.1 Definitions of creativity, culture and preschool education

Before stating the significance of this study, this section aims to give a clear focus on perspectives of the terms 'creativity', 'culture' and 'preschool education and early childhood education' in order to clearly define what is understood by the terms within the context of this study.

(i) Definitions of creativity

Here, I wish to introduce the definition that will be used in this study with a clear rationale for its adoption. It introduces the terms of 'creativity' and 'creative-', which are very similar but different, as it is useful to offer an initial definition of some of the key terms used in this stud. We may note the following key issues relating to this submission:

- **'Creativity'** is the thinking ability associated with new, original, workable, and practical outcomes (Ministry of Education in Thailand, 2016).

- **'Creative thinking ability'** is (1) thinking in various ways, (2) imagining, fantasising, and assuming unexpected roles, (3) investigating different and unaccustomed solutions to problems, and (4) adopting simple objects for uses other than their intended purpose (Torrance, 1981).

- **'Creative curriculum'** is 'what is to be learned' to help children to become creative thinkers (Teaching Strategies, 2010).

- **'Creative teaching'** focuses on the teaching and learning activities that aim to develop creative capacity (Maxwell, 2013).

- **'Creative learning'** describes the range of activities and methods used by learners that support creative developments and skills (Maxwell, 2013).

It is thus clear that the term 'creativity' can be seen from different perspectives. The definition of 'creativity' in this study refers to the characteristics of new, original, workable, and practical outcomes (Ministry of Education in Thailand, 2016). This aims to reflect how creativity links to social values and the acceptance of novelty, originality, usefulness and appropriateness in this particular context. The term 'creative thinking ability' refers to the individual's actions to achieve mastery and accomplish creative results (Maxwell, 2013). This involves the individuals' characteristics and their actions, which link to the creative process and outcomes that may occur in the classroom. On the one hand, 'creative learning' focuses more on the particular activities and methods used by learners that appear in the classroom (ibid.). Meanwhile, 'creative teaching' refers to the teaching or practices that promote creativity and creative learning. This is related to the process of acquiring knowledge and understanding contexts as well as the process of applying knowledge to the original topic or issue (Maxwell, 2013). The term 'creative curriculum' refers to the guideline and policy that aims to provide a guide to the best way to develop creative learning for learners (Teaching Strategies, 2010, p.1). This can be a foundation for either creative teaching or creative learning in the classroom.

The meaning and correlations of the terms 'creativity' and 'creative-' will be explored more fully in the literature review in Chapter 2.

(ii) Definitions of culture

In this thesis, the word culture refers to 'school culture'. 'School culture' refers to the school context, people, processes, procedures and places that surround and influence a person's

feelings, attitudes and actions (Csikszentmihalyi, 2005; Amabile, 2010). It is associated with 'unwritten rules and traditions, norms, and expectations that permeate everything: the way people act, how they dress, what they talk about, whether they seek out colleagues for help or don't, and how teachers feel about their work and their students' (Deal and Peterson, 1999, pp.2-3). Therefore, the conception and the influence of culture can be seen through the teacher's understanding, the process and procedure of learning and teaching in the classroom, and the place and environment of the school context.

(iii) Definitions of preschool and early childhood education

In Thailand, one of the latest and most important references to the definition of preschool and early childhood education was made by The Early Childhood Curriculum, B.E. 2560 (2017). The terms 'preschool' and 'early childhood education' provide the scope of the children, the participants, in the context of this study.

- **'Early childhood education'** relates to the education of children from birth to six years of age (The Early Childhood Curriculum, B.E. 2560, 2017).

- **'Preschool'** is an early childhood programme for children aged between three and six years (The Early Childhood Curriculum, B.E. 2560, 2017).

- **'Preschool classroom(s)'** is/(are) a/(two) preschool setting(s) in Bangkok, attended in this study.

The definition of early childhood education is an activity or inter-active process that takes place before the school age in Thailand. It includes home, day care, and preschool that purposefully aim to encompass the development of children from birth to six years old. Meanwhile, preschool is viewed as a part of early childhood education. Preschool was described as an early childhood programme in which children combine learning with play in preschool classrooms run by preschool teachers (Ministry of Education, 2016). Children are usually enrolled in preschool between the ages of three and six. Preschools are different from traditional day care or nurseries since they focus on learning and development rather than helping parents to look after children with other activities.

1.2 Significance of creativity in young children

Developing creativity in the early stages of human life is noted as significant because it enables children to develop their unique ideas and personalise their learning (Barron and Harrington, 1981; Prentice, 2000; Isenberg and Jalongo, 2001; Butcher and Niec, 2005; Craft, 2001). This is reinforced by young children's natural disposition to be inquisitive, imaginative and expressive (Beetlestones, 1998). From early on, children are keen to question, investigate and discover. Their openness to new ideas and their ability to use different senses when trying out new thinking, enables new connections (Amabile, 2001). In doing so, children's curiosity and enthusiasm is the driving force for enabling new ways of thinking and doing things in the context of unpredictable or unfamiliar environments. Ultimately, early childhood is crucial for cultivating and developing a person's creative potential. Consequently, encouraging children's creativity is a fundamental part of education. Creative activity, such as problem solving, creative art or creative exploration, is essential for motivating intellectual development including the ability to scrutinise, create broad perspectives and enable new ways of working (Craft, 2005). The creative nature of children's play and exploration is essential in relation to fostering the foundations of intellectual, emotional, social and physical development, which also has positive effects in relation to personal development and mental well-being. Essentially, creativity acts as a driving force for enhancing self-esteem and land motivation in the classroom (QCA, 2003). For example, creative art can help children to interpret, express and represent their thoughts and emotions, particularly in relation to abstract concepts. A creative approach can support the release of feelings and understandings (Beetlestone, 1998). Children that become active in creating and interacting with other people adjust better to the environment around them, so they are able to communicate, collaborate and develop good relationships in society, and adapt accordingly. It is thus apparent that encouraging children's creativity is a fundamental component for developing a person's potential, their important life skills, and their mental well-being.

1.3 Significance of creativity in Thai education

In Thailand, the growing significance of creativity in preschool education has been officially acknowledged since the education reforms in 1999. The Ministry of Education (2008) has

indicated that critical and creative thinking formed a key factor in cultivating modern thinking and developing innovation. The values of creativity and self-development in education were associated with content-based or activity-based learning. The Early Childhood Curriculum (B.C. 2546, 2003) emphasises creativity as a crucial trait of young children in broader domains such as art, music, science, play, making projects and exhibitions. It aims to develop imagination and creativity in young children aged three to five years through six essential activities. Teachers are responsible for these six daily activities: circle time, free play, creative art and craft, music and movement, an educational game, and outdoor play. As a result, there are a number of research projects which have examined creativity in Thai preschools based on the six essential activities promoted over the last two decades.

Thai scholars have investigated the effect of many specific pedagogies and different learning interventions in promoting creativity based on the six essential activities. For instance, Kannikar Susom (2003) has studied a comparison of children's creativity among those who experienced the project approach. The results demonstrated that preschoolers showed higher levels of originality, fluency, flexibility and elaboration in creativity than those who did not participate in the project. Later on, Boonnchuay Bomlai (2007) studied the effects of the project approach model of using brainstorming techniques to promote children's creativity. The results showed that participants obtained higher scores in creativity. Equally, Thanaporn Sosaennoi (2012) studied the effects of High Scope creative arts activities supplemented with opened-ended questions on creativity and group behaviour of preschool children. There is also the work of Jiraporn Promputta (2007), who studied the development of children's creativity using mind mapping techniques. The findings showed that the experimental group gained higher scores in creativity than the control group. Meanwhile, Vatinee Bunjong and Sasilak Khayankij (2014) studied the effects of organising art experiences by integrating an iDesign approach to kindergarteners' creativity. The researchers used the Test for Creative Thinking-Drawing Production Form (TCT-DP) both pre- and post-test. The results demonstrated that the experimental group had higher scores post-test and higher scores than the control group. The researchers highlighted the teacher's role in learning preparation, inspiring children, and allowing children to express themselves and present their own work with instructions.

In particular, Nisita Yooumpai (2011) reported that there were approximately 70 experimental studies on creativity in early childhood education during the years 2000-2010. She noted that the most common topics involved with language and creativity are storytelling, reading storybooks, naming the story and role-play. Some research has focused on creativity and imagination by exploring children's imaginations: for instance, when they listen to different sounds or songs. In addition, creative art and play are the most popular topics in terms of the factors that promote children's creativity.

As is evident, education reforms, including curriculum reform and teaching pedagogy, included establishing various task forces to set roadmaps for teaching strategies and school policy to enable children to extend their appropriate skills to ensure they thrive in their creativity. This has placed greater importance on creativity in Thai education over recent decades and resulted in the trends of research into creativity and the individual's cognition or ability, and the process or the product of creativity. However, among the many values of studying creativity in early childhood education, there has been a lack of investigation into children's creativity within a cultural context that might help educators to understand its meaning and to clarify the best approaches and social and cultural factors in fostering creativity in the early education setting. Pimpa (2012) argued that Thai educational policies and reforms have focused on increasing modern thinking and creativity in Thai students. The challenges of developing creativity in education lies not in a lack of policies or pedagogy but a surplus. This results from educators seeing the problems of education as requiring reform in 'structural and political' ways, such as establishing new administrative processes and policy, rather than through socio-cultural aspects (Hallinger and Bryant, 2013). This argument has led the researcher to consider the importance of creativity relating to pertinent cultural phenomena and the influence of the environment in developing or limiting creativity in the preschool classroom.

1.4 Significance of culture for creativity and education

Several educational researchers consider an understanding of the role of culture to be important in the development of human creativity since it traditionally constitutes the store of

human wisdom, actions and beliefs, which significantly influence human lives in a particular context (Albert and Runco, 1999; Csikszentmihalyi, 1997; Dacey and Lennon, 2000; Hennessey and Amabile, 1998). Starko (1995) stressed that 'creative contributions do not spring forth in a vacuum; they are built on the knowledge and efforts of those who have gone before' (p. 114). Culture forms people's ways of living with 'historical accumulated knowledge, tools, and attitudes that pervade the child's proximal ecology, including the cultural practices' (Cole, Hakkarainen and Bredikyte, 2010, p.1). In agreement, the European Commission's Directorate for Education and Culture (2006) acknowledged culture as an important foundation for highlighting the roles of the world's citizenship and creativity. In addition, Bokova (2012), the Director General of UNESCO, highlighted culture as an important foundation for creativity, innovation and everyday life since 'it gives us strength; it is a wellspring of innovation and creativity; and it provides answers to many of the challenges we face today' (p.1).

Creativity contributes to the formation of culture: without creativity there would be no art, music, painting, architecture, literature or other cultural production. However, it should be noted that cultural values may either feed or hinder creativity. Creativity requires the appropriate conditions to cultivate it, as asserted by Al-Suleiman (2009), who noted that creativity is supplemented by social values and that it can be motivated or hindered by cultural processes. The importance of culture and creativity has been acknowledged by Wolbers (2018) as significantly impacting on young children's creativity since children, in the critical younger years, are incredibly active and adaptive. Through their culture and backgrounds, children have an inherent sense of playfulness and curiosity to challenge and create their own worlds (ibid.). This is reinforced by Runco (2013), who notes that creativity can be fostered by parents, teachers, business, and communities. At the heart of this process, an appreciation of creativity by adults who facilitate learning opportunities is crucial. Runco (2013) explicated that creative mind-set tend to grow when the learners are strongly supported, which can be challenge in a society where collective norms focus on prioritising outcomes to the detriment of engagement. Yet, the degree of individuality of a society does not mean that a collectivist society cannot foster creativity. As Runco suggests, even the most collectivist society needs creativity and imagination to deal with its social challenges.

Moving on to the context of this study, the Office of the Education Council of Thailand (B.E. 2545, 2002) has noted that Thai culture has been influenced by globalisation, politics, economics, education, and local communities. Thai culture can be viewed as the Thai tradition, education, political culture, language, architecture et cetera. This is linked to local communities, nations, and communities at international levels. Several scholars such as Hallinger (2010), Rojanapanich and Pimpa (2011) and Power (2015) have indicated the advantages and disadvantages of the characteristics of the Thai cultural view of creative education. The characteristics of the Thai cultural view of creative education – great respect for seniors, collectivism, those in authority and the concept of virtue of obeying parents and teachers – are seen as the key essential impacting children's creativity (Rojanapanich and Pimpa, 2011). However, many preschools have adopted child-centred and play-based learning to promote more active learning and reduce the power imbalance in the classroom. With so many influential factors, understanding and appreciating the aspects of Thai culture and its influence on developing creativity and creative practices in early childhood education can be the first step towards gaining a critical understanding and a significant foundation of how culture and social context influence an individual's creativity and maximising the opportunity for action learning. This research, therefore, focuses on the concepts of creativity in the preschool settings and on expanding the knowledge on the topic of developing creativity in the Thai context. This thesis lays out the framework of Thai culture and its influence of teacher's perceptions of creativity, the early childhood curriculum, the pedagogical approach, and the challenges that the preschool teachers encounter in their settings. Each topic will be discussed later in Chapter 2, the literature review, and will be used in Chapter 4's research findings.

1.5 Research context

The research context focuses on the school district, preschool education system and education policy in Thailand with the aim of describing the rationale for the selection of the two preschools that were the focus for the study.

Data collection was carried out in two preschool settings in Bangkok, Thailand. Bangkok Metropolitan is the centre of political, economic, social and cultural activities in Thailand and

is large city associated with Thai traditional culture and modern globalisation. As the capital city, people from other districts flow in to work in Bangkok. The overall population in Bangkok Metropolitan is 5,682,415; the population aged 4-6 years is approximately 211,012 (Bangkok Metropolitan Administration, 2017). The area of Bangkok is 1,568.737 square kilometres, and the population density is 3,617/ square kilometre.

The educational system in Thailand is divided into four levels: preschool (3-5 years old), primary school (6-12 years old), secondary school (12-18 years old), and higher education (18-22 years old; Ministry of Education, 2016). The preschool level is not compulsory and statistics show approximately 30 percent of children aged three years, 98 percent of children aged four years, and 95 percent children aged six years received preschool education (Ministry of Education, 2016). According to the statistics, approximately 75 percent of children in Thailand aged from three to six years received preschool education.

One of the selected preschool cases is a public school organised under the supervision of the Office of Basic Education Commission. The other case is a preschool under the supervision of a university, which means that it is not fully funded by the Thai government and they do not operate for profit. Both schools are under the supervision of the Ministry of Education in Thailand. They each place importance on developing children's creativity as part of their own teaching strategies. One school (named in this study as School A) uses a literature-based approach and the other one (named in this study as School B) uses scientific-thinking skills and thinking-process skills in their curriculum. (Please see more details of the literature-based approach and scientific thinking skills-based approach in Chapter 3, the research methodology.) These two approaches are based upon the Early Childhood Curriculum B.E. 2546 (A.D. 2003), which aims to enhance the capacity of all learners. Afterwards, the Early Childhood Curriculum, B.E. 2560 (2017) focuses on learner development and indicates five key competencies in the curriculum, which are communication ability, thinking skills, problem-solving skills, ability to apply life skills, and ability in technological application. Overall, the preschool curriculum aims to encourage all learners to enjoy the conformity and harmony of Thai-ness, a love of the Thai nation, its religion, and the king of Thailand as a sustainable way of life. This can be found in both the literature-based approach and the

scientific school curricula as they adopt the Early Childhood Curriculum, B.E. 2560 and develop their own teaching approach as part of implementing the curriculum.

Next, the research aim and questions are presented.

1.6 Research aim and questions

The aim of this research project is to explore the concept of creativity in two preschool settings in Thailand (Bangkok) in relation to the following:

- RQ 1 - How do teachers in two preschools in Thailand understand the concept of creativity?
- RQ 2 - How do pedagogical approaches used by Thai preschool teachers in two settings promote children's creativity?
- RQ 3 - How does the preschool environment influence children's creativity in both preschools?
- RQ 4 - What are potential barriers that inhibit the development of creativity in Thai preschools?

The aim stated above led to the research questions. The aim relates to a desire to develop a critical understanding of the conception of creativity and creative practice in order to explore and provide recommendations for the development of the preschool curriculum, pedagogical practices and learning resources as part of the environment in two preschool settings in Bangkok, Thailand.

1.7 My own positionality

The research outlined in this thesis has been informed by my background, my experience and my appreciation of creativity as an approach for learning with young children. As a child, my education in a Thai preschool (between 1990 and 1993) was very formal in comparison with my appreciation of quality early-childhood practice today. Preschool education during the 1990s was viewed very much as a transferal of information which involved very little and often no participation by children. During large group activities which focused on knowledge-

based learning such as literacy, numeracy and science, the teacher would tell a story, and share his/her thoughts and knowledge. Children were expected to sit silently and learn to be listeners rather than thinkers. At this time, the focus of teaching was on controlling behaviour rather than stimulating learner's curiosity and creativity. In small group activities, there was a choice of different worksheets, such as dot to dot, colouring and numbering. We were given more freedom to choose, but personally I enjoyed the worksheets as I found them interesting and they challenged me. Creative work was allowed once the more informal learning had taken place. Creative activity seemed to appear in play and the art classroom, when children were allowed to create their own pieces of work and express their creative thoughts with their peers.

As a child in preschool in Thailand, I remember having to memorise facts rather than being encouraged to think creatively. For example, we were required to rote learn the alphabet. At primary school, I remember being required to recite multiplication tables together as a class, which created a very formal atmosphere of learning rather than creative learning, which in the long term did not encourage or engage me as a learner.

Later on, as a university student in Thailand, my work experiences with young children in a variety of preschools in Thailand provided me with insights into different pedagogical approaches, using a variety of materials. I noticed that when the teacher provided creative teaching strategies (such as when choices were offered or when children were encouraged to be independent and come up with their own ideas), they tended to be more engaged in both the content and the process of learning. Nonetheless, I was challenged by some aspects of working creatively with young children. For example, with academic learning being prioritised as the main goal for educational success, it was difficult to justify being creative, as teachers were required to focus on knowledge and facts rather than developing creativity. Secondly, a narrow interpretation of creativity – that is as an art based activity – meant creative learning was limited to certain aspects of the curriculum. This motivated me to investigate children's creativity in other aspects of the curriculum as part of my Master's study of other aspects of the creativity.

As part of my Master's dissertation, I was keen to pursue my interest in creativity in relation to scientific enquiries as part of children's learning. The findings of that study revealed

similarities between sciences-based learning and creative learning. For example, both approaches offered children freedom to come up with ideas, for interaction and for developing ideas.

In 2013, at the start of my PhD study, I became aware and interested in international philosophies associated with early learning, such as Montessori, Steiner and Reggio Emilia. I began to question the role of the teacher in facilitating child-centred learning and how these teaching approaches compared with preschool learning in Thailand. This ultimately led to me exploring the influence of cultural context in developing creativity in preschools in Thailand as the focus for my PhD study.

1.8 Contribution to knowledge

The significance of the contribution to knowledge of this study is to expand knowledge on the topic of developing creativity and to help educators understand its meaning and clarify the approaches and social and cultural factors surrounding fostering creativity in preschool education in Thailand. Many reports (Starko, 1995; Plucker et al., 2004; Csikszentmihalyi, 2005; Al-Suleiman, 2009) have demonstrated the significance of cultural influence on developing creativity in schools. Much of this work claims that developing children's creativity in preschool can be a more complex issue than merely putting a particular learning intervention into place in the classroom. Nonetheless, there are few studies that explore the strong emphasis on the social and cultural aspects of children's creativity in Thai education. This limitation has led the researcher to explore the wider influences on creativity in two preschool settings in Thailand.

By drawing on Rhodes' Four Ps model of creativity, I offer a systematic comparative examination of the practice of Thai preschool teachers, their understanding of creativity and the various influences that support or hinder it in children.

I illustrate the socio-cultural contextual similarities, differences, and implications for action in order to enhance creativity in preschools in Thailand and in the wider world of early education. In doing so, this exploratory study reveals new insights and the lessons that may be learned related to embedding creativity in preschools and, in particular, the variety of pedagogies which contribute to the development of creativity in the classroom, the various

ways that creativity can be developed in young children, the importance of a creative climate, and the effects of the social and cultural context in developing creativity.

Furthermore, in relation to the claim of originality, there is a considerable advantage in this study being conducted in Thailand but being reported in English. This is because there is a high volume of research and theories discussing creativity, but many of these studies have not been published in English (Kaufman and Sternberg, 2010). Those studies may have been overlooked by many potentially interested readers. From this statement, the researcher wishes to note that there may be researchers investigating creativity in many countries (in their own languages), but many may not publish in English; so, this material is not known and not understood worldwide. It is my hope that this thesis will contribute to the research literature by using original empirical data and the exploration of extensive materials to present how creativity is understood within the Thai context of preschools.

1.9 Summary and overview of the thesis

Chapter 1 has provided an overview of the research focus and has presented definitions of creativity, culture and early education within Thailand, as pertinent to this study. Insights into my own positionality within the context of the study have also been provided along with a summary of the contribution that this study makes to the field of early childhood education.

Chapter 2 will focus on the concepts of children's creativity and the Four P's model of creativity in school settings. Then, it will discuss the impact of the creative environment on the creative person, process, and product. In the last section, it presents culture's influence as the 'press' (Rhodes, 1961), such as the school culture, school ethos, norms and learning styles that may influence creativity and creative practices.

Chapter 3 will explore the methodology and research methods most suitable for this study. It outlines the research paradigm and research tools, and describes the methods of data analysis and data presentation. The research paradigm describes the ontology, epistemology and the rationale for using comparative case studies. Insights into sampling, the context of the study and conducting the pilot study are provided. The research tools are described as including (1) participant observation, (2) semi-structured interviews, (3) secondary analysis of preschool

curricula, lesson plans, and policy documents, (4) children's artefacts and work, and (5) photographs of classroom activities. Finally, ethical considerations are discussed.

Chapter 4 will present the findings and provide a thematic discussion based on the research questions. The methods of data analysis and data presentation present the thematic analysis techniques. The themes will include 1) conception and perception of creativity; 2) creativity and pedagogical approach; 3) creativity and school environment; and 4) creativity, culture and education

Chapter 5, as the conclusion, will offer recommendations based on the findings and will offer insights into personal and professional learning as part of engaging in this PhD experience.

Chapter 2: Review of the literature

Introduction

This literature review begins with the concept of children's creativity. Within its analysis of the scope of children's creativity, the review explains and analyses the different levels that may be discerned within it, such as High-C, pro-c, mini-c, and little-c, and then shows the interplay between these concepts. Subsequently, the concept of the Four Ps creativity model (Rhodes, 1961), including the creative person, creative processes, creative products, and creative press, is discussed to generate and assist in explaining what and where creativity in the classroom is. The model delineates the structure of creativity in schools including the person (teacher and pupils), process (creative learning), product (children's artefacts), and press (curriculum, the pedagogical approaches, creative activity and the learning context). The next section – creativity, culture, and education – focuses on school culture, creativity and Thai culture, the school ethos in Thai education, culture norms and creativity, and the Thai learning style. The aims here are to indicate and analyse the work associated with the Thai context explicitly and to indicate how culture and social context may influence research sites in this study. In the last section, the effects of the press in schools are addressed, including the teachers' perceptions of creativity, the curriculum, the pedagogical approaches, and a teacher's role in promoting creativity as the learning environment for supporting creativity.

2.1 The overview and concept of creativity

This section outlines two key issues in relation to this study – the overview of creativity, and the concept of children's creativity – in order to capture the definitions and perceptions of creativity in early childhood research.

2.1.1 The overview of creativity

In the educational research literature, there have been more than 100 definitions of creativity used since the 1950s (Treffinger, Schoonover, and Selby, 2013). Fishkin (1999) stated that

creativity is a fascinating combination of phenomena that cannot be understood within only one definition. Paul (2005) noted that creativity is an elusive concept that is underestimated by the criteria for measuring it. He remarked that in particular disciplines there is no single definition of creativity, and there are plenty of perspectives on the value of creativity in young children's education.

A review of the literature further reveals that the definition and descriptions of creativity are varied, diffuse and almost intangible. Davies (2006) noted that creativity has become 'a buzz word of our times, and [is] often misconstrued, misunderstood, and plainly misused' (p.40). Some believe that some people are born creative and some are not (Craft, Jeffrey and Leibling, 2001). It might be true that some people have more interest in creative activity than others; however, there is scientific evidence that proves our brains can develop a creative thinking process through performing particular actions. This shows that everyone can develop their creative potential through creative activities. Another misunderstood view of creativity is that it is only connected to art work (ibid.). In fact, being creative is not only associated with fine art, music or performance. Many academics have identified the process of creativity in science, mathematics, economic, innovation, or even daily life skills such as cooking, programming, designing et cetera (Armga et al., 2002). This is because people have an inherent sense of curiosity in observing natural phenomena and processing it into new creative outcomes.

Although many scholars have attempted to explain what creativity is or is not, the definition of creativity remains unclear in educational practice. Many educators considers creativity to be the positive traits of gifted or talented people. Yet, some of them associate creative people with the negative traits of disobedient pupils who do not conform to the teacher's expectations. The understanding of this definition certainly leads to recognising the importance and the clear pathway of developing creative ability in practice. Therefore, the word creativity must be demystified through an exploration of its definition, characteristics and frameworks.

2.1.2 The concept of children's creativity

A number of researchers have acknowledged that the word creativity is defined dependent upon the worldview and the nature of the individual or society under scrutiny. In the UK, the

National Advisory Committee on Creative and Cultural Education (NACCCE, 1999) stressed that the major characteristics of creativity refer to imagination, originality, productivity, problem-solving and 'the ability to produce an outcome of value and worth' (p.5). On the other hand, Feldman, Cziksentmihalyi and Gardner (1994), speaking from a US perspective, identified creativity as 'the achievement of something remarkable and new, something which transforms and changes a field of endeavour in a significant way… the kinds of things that people do that change the world' (p.1).

Alternatively, academics have indicated the different concepts of creativity that exist for different target groups and circumstances. This came to the fore when the NACCCE (1999) defined the 'elite definition of creativity' as the creativity of 'great men and women who have produced or made path-breaking compositions, painting, inventions or theories' (p.28) and gave the definition of everyday creativity as 'imaginative activity fashioned so as to produce outcomes that are original and of value' (Ken Robinson, NACCCE, 1999, p.30). This can be compared to the findings of Craft, Jeffrey and Leibling (2001), who coined the terms Big-C and little-c and suggested that Big/high-C creativity is the extraordinary creativity of geniuses, talented individuals or unique people: 'those who change the domain of knowledge or create new ones' (p.46).

Thoroughly, the concepts of everyday creativity – sometimes called little-c, or ordinary creativity – are obviously derived from English education, when scholars developed a discourse on whether all people can be creative (Craft, Cremin, Burnard, and Chappell, 2007). Craft (2002) explained that children's creativity differs from adult creativity, since children learn though play and discover new experiences which can be novel, original or even creative. Craft distinguished little-c creativity as the ability to use intelligence, imagination and self-expression and being driven by the possibilities of thinking in daily life. Meanwhile, Duffy (2006) defined creativity as 'a process of conscious invention' and describes 'the resourcefulness of ordinary people rather than extraordinary contributors' (p.17) through using 'possibility thinking' that asks 'what if' and is used to identify solutions in all situations. Ripple (1989) asserted that 'ordinary creativity is involved in solving everyday real-life problems of less than heroic proportions that help us get through the day better and/or more efficiently' (p.190). Meanwhile, Richard (2010) determined that everyday creativity is

associated with 'human originality at work and leisure across the diverse activities of everyday life' and is 'central to human survival and… found in everyone' (p.190).

Even though the recent research across cultures tends to focus on Big-C and little-c creativity (Beghetto and Kaufman, 2007), the conceptual work on little-c creativity as initially focused on everyday creativity in the preschool classroom remains ambiguous. This gap allowed researchers Beghetto and Kaufman (2007) to propose a new category of creativity that helps protect against overlooking pupils' creative potential, called mini-c creativity. Beghetto and Kaufman (2009) defined mini-c as 'novel and personally meaningful interpretation of experiences, actions, and events' (p.3). The concept of mini-c creativity may be seen in parallel to the Vygotskian theory of cognitive development, which emphasises that all people have their own creative potential that begins with the internalisation and social interaction. It focuses on 'a transformation or reorganization of incoming information and mental structures based on the individual's characteristics and existing knowledge' (Moran and John-Steiner, 2003, p.63). Mini-c creativity may not be considered creative by academic judges, yet it is a key aspect for meaningful creative learning. Last but not least, scholars have pointed to 'pro-c creativity', which focuses on profession creators who 'have not reached eminent status' (Kaufman and Beghetto, 2009, p.4). Pro-c creativity tends to occur more in competitions, events or organisations rather than in the preschool classroom, an example of which would be highly talented musicians and the like who have not yet reached the level of high-C creativity.

Table 1: Levels of creative accomplishment

Level of creativity	Example	Key Benefit	Proposed frequency
Mini-c creativity	Children learning to play guitar	Crucial element in learning	Whenever it occurs
Little- c creativity	Guitarist for a garage band	Better mental and physical health	When appropriate to the context
Pro-c creativity	Jonny Buckland (lead guitarist for Coldplay)	Career success	As needed
High-c creativity	Jimi Hendrix	Global impact	Whenever it occurs

(Modified from Kaufman and Beghetto, 2009, p.7)

Table 1 illustrates the comparison of levels of creativity. Though the levels of creativity have been focused on differences, the similarities between them are considered in terms of aims and judgement. The common traits of creativity are concerned with being 'novel and appropriate' and aim to 'discover generalizable principles' (Amabile, 2001, p.14). The assessment of creativity focuses on being 'culturally and historically bound, with the object of judgement being a work or body of works, and… require that there be consensual agreement on creativity by individuals knowledge about the domain in which the work was produces' (ibid.). Indeed, each level of creativity may link to and influence another. Therefore, the next illustration shows the free-position of the scope of creativity rather than a single process at work.

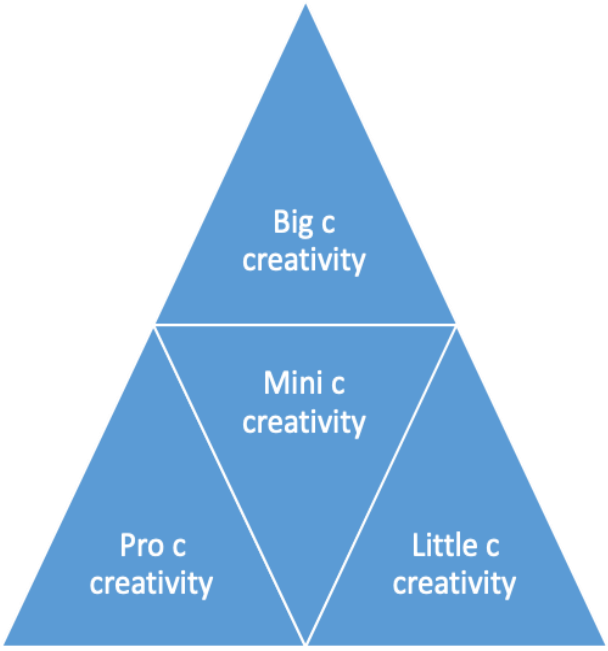


Figure 1: The complete Four-C Model

The Figure 1 above shows the contribution of the universal creativity of childhood to professional creativity. The mini-c, or little-c, creativity plays an important role in the development of practical skills and abilities which are important for everyday life, as well as seeming to be the more appropriate level for investigating children's creativity rather than high-C or pro-c creativity. Moreover, some viewpoints emphasise that a small creative progress can form the basis of considerable development. Treffinger, Schoonover, and Selby

(2013) noted that considerable human progress has been made by most creators who have made almost unnoticeable changes to theory and that 'the cumulative results of their contributions are part of the bedrock of human civilisation' (p.32). This idea can be claimed not only as a notable paradigm shift but also as a small or unrecognisable achievement that build ups in the creative practice and products of society throughout human history. Accordingly, the significance of mini-c and little-c creativity in early childhood education and society is great, and this research focuses on everyday creativity in the classroom – especially in two main aspects: creative product and creative process –rather than high-C and pro-c creativity, in order to capture the creativity which exists in preschool settings.

2.2 Four Ps creativity: the model of creativity

To develop children's creativity in education, Rhodes (1961) acknowledged the importance and the confluence of environment-centred variables for developing individuals' creative products and processes. Rhodes (1961) explained that creativity describes a phenomenon where a person develops new products within implicit cognitive thinking and where there is an environment that enables that creation. A 'creative person' is seen as a person who generates creativity. The 'creative process' refers to a procedure of producing creative outcomes. 'Creative product' is acknowledged to be a result of the activities of a creative person. 'Creative press' refers to the external context: physical or social factors that influence the creative person to create original ideas and products with an open mind to new processes (Rhodes, 1961). As noted by Treffinger et al. (2002), the Four Ps are different but related aspects of creativity. Mirowsky and Ross (2007) stated that the Four Ps constituting the model of creativity are inextricably linked. The model focuses on the dynamic interaction between person, process, press and product. This indicates that creativity should be considered as 'a multi-faced phenomenon rather than as a single unitary construct capable of precise definition' (p.8). In agreement with Keller-Mathers (2011), the work of Rhodes is very helpful for investigating creativity within the scope of teaching and learning at any level of education. With more updated resources, Jordanous (2015), in the new field of research of computational creativity, deliberated whether this new area of research should be investigated through the aspects of Four Ps creativity. The author suggested that the Four Ps conceptual framework

can build new viewpoints to promote different views of creativity and allow us to pay attention to four significant features: the person who creates products, the products themselves, the process that occurs and the press that influences the person in their creative work and development. Nevertheless, much research has been conducted merely some specific dimension. As a useful research framework, therefore, the Four Ps model is used, in this study, to define 'what is creativity' and 'where is creativity' in the context of this thesis. This can help to reflect the influence of a creative environment over the person, process and product within a Thai cultural context. In the following sub-section, the elements of the Four Ps model are explored in more detail.

2.2.1 Creative person

The research surrounding the creative person has been focusing on background knowledge, personal characteristics, and abilities or working style. Personality means a set of traits or dispositions of an individual. A person has a unique set of characteristics that make them different from others, and explorations from prior studies suggests that personality is strongly related to the level of creativity (Sternberg, 2012). MacKinnon (1978, cited in Treffinger et al., 2002) stated that a creative person tends to be independent, individualistic, enthusiastic, perseverant and filled with endeavour. Similarly, Gough (1979) indicated 18 traits of creative persons, including cleverness, capability, confidence, egotism, humour, informality, individuality, insightfulness, intelligence, inventiveness, originality, reflectivity, resourcefulness, self-confidence, sexiness, snobbishness and unconventionally broad interests. As can be seen, the person characteristics seem to involve the intrinsic motivation and interest that drive a person to express their feelings and thoughts or engage in creative work.

The individual's background knowledge represent the assets or values of a person, referring to the sum of individual knowledge (Guilford, 1950, 1956 and 1967) or cognitive attributes (Amabile, 2010). Individuals hold different depths and breadths of knowledge to boost their creativity, apply to problem solving or creating new ideas. Masrek and Zainol (2015) recommended that knowledge is essential to a student's academic performance since it underpins how students perform in their presentations, examinations, and in class

participation. Moreover, Reduan (2013) suggested knowledgeable pupils may develop 'thinking out of the box' skills and original ideas as well as dealing with and avoiding potentially problematic issues. However, the level of knowledge cannot guarantee the level of creativity (Amabile, 2010). It can be said that the learner's knowledge provides a clear background for them to use relevant information when generating creative outcomes, yet it still requires external factors such as motivation, opportunity and possibility in particular circumstances.

Moving to another important point, a person's abilities and working style refers to the ability to create original ideas and products. This clearly links to definitions of creativity as a process to new approaches, insights, perspectives and ways of thinking on particular issues (Eragamreddy, 2013). From this perspective, this view of ability corresponds to Rogers (1961), who indicated that a creative person involves the development of creative engagement. He noted that creative persons (1) are open to new experiences and have flexibility, (2) use a variety of viewpoints to appraise and engage the particular situation, and (3) have the ability to engage in limited conditions with many possibilities. Gardner (1993) emphasised the creative person as 'a person who regularly solves problems, fashions products, or defines new questions in a domain in a way that is initially considered novel but ultimately becomes accepted in a particular cultural setting' (p.35). Meanwhile, Duffy (2006) identified five abilities of creative persons, including the abilities to see things in new ways, to create something unique or original, to connect previous experience and generate new ideas, to use unaccustomed approaches to deal with situations, and to envision the future with the information provided.

2.2.2 Creative process

The definition of creative processes refers to a procedure of generating creativity or creative problem-solving that involves imagining an idea, producing items, divergent thinking, critical thinking, and linking and branching out the ideas rather than recalling or reapplying set techniques. Csikszentmihalyi (1990) stated creativity is creative 'flow', defining 'flow' as 'the state in which people are so involved in an activity that nothing else seems to matter; the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of

doing it' (p.4). The author described that creative flow involves the feeling of intense concentration and enjoyment that a person engages when they create and work on satisfying tasks. Creative flow is a result of the work habits of people who make significant creative contributions.

Besides this, Sternberg and Lubart (1995) defined creativity as 'the process of generating ideas that are novel and bringing into existence a product that is appropriate and of high quality' (cited in Wright, 2010, p.3). Jones (1972) defined creativity as a 'combination of flexibility, originality, and sensitivity to ideas which enables the thinker to break away from the usual sequence of thought into different and productive sequences, the result of which gives satisfaction to himself and possibly others' (p.7). Moreover, creativity has also been indicated to be the ability to produce new knowledge (Dacey and Lennon, 2000) and 'the generation of ideas that are both novel and valuable' (Boden, 2004, p.351). According to Maxwell (2013), the traits of the creative process may be apparent in broader terms, such as ensuring that children are constructively inquisitive (being curious, making use of previous knowledge, seeking productively, and formulating good questions), open-minded (using lateral thinking, using divergent thinking, making hypotheses, investigating new viewpoints, being flexible, being adaptive, and functioning well with unpredictable situations), being imaginative (exploring, making and refining multiple choices), and able to identify and solve problems (capturing and define problems, delivering and exhibiting the solutions, estimating the impact and success of solutions, and showing initiative, persistence, and resilience in finding solutions). Apparently, the creative process has been seen as a powerful component that helps people to expand new ways of thinking and helps a person to bridge unconnected information, use information in new ways, and modify and monitor challenges, as well as, becoming flexible and adaptive with various objects, people, and situations.

Some consider that creative processes are the processes of applying and connecting ideas, and coping with creative problem-solving, as well as generating novel and original ideas**.** In the 1970s, Maslow, an American psychologist, investigated two stages of the creative thinking process: primary and secondary creativity (Vogel, 2014). Primary creativeness refers to sudden or unconscious acts which are the 'source of new discovery' and 'equivalent to the divergence component of creativity' (Vogel, 2014, p.3). Secondary creativeness involves

‘logic, common sense and reasoning’ (ibid.) and builds on the connection of pre- and post-ideas. Later on, Arieti (1976) argued that the combination of two processes is the tertiary process, which is the process of combining the world of mind and matter, and the rational.

In pragmatic work, Fumoto, Robson, Greenfield, and Hargreaves (2012) created the Analysing Children’s Creative Thinking (ACCT) Framework to observe creative processes in young children. They suggested that the creative process can be observed in their play, exploration, involvement and enjoyment, and persistence. They stated that a creative process can be observed when a child was keen to explore, and/or show interest in the potential of a material in the first moment; when a child is interested in becoming involved in an activity and taking an idea forward; when a child shows enjoyment or curiosity when choosing to engage in an activity; when a child shows evidence of novel ways of looking and planning by using prior knowledge or acquiring new knowledge to imagine and/or hypothesise, or to show flexibility and originality in his/her thinking; when a child shows either verbal or behavioural evidence for weighing up his/her idea, and deciding whether or not to pursue it; when a child makes a speculative statement or asks a question of him/herself, or of other children or adults, resulting in the activity; when a child engages with one or more children or adults to develop an idea or activity - perhaps articulating an idea, seeking to persuade others, or showing receptivity to the ideas of others; when a child displays a willingness to take risks, and to learn from mistakes; and when a child shows a sense of self-efficiency, self-belief and pleasure in achievement, showing conscious awareness of his/her own thinking.

By definition, the creative process may refer to the actions, to activity, to creative flow that creates or generates novel and original outcomes, and copes with problem-solving, to imagination, and to the relationship between previous knowledge and experience by appreciating many possibilities and accepting various approaches. It is associated with children’s play, exploration, involvement and enjoyment, and persistence (Fumoto, Robson, Greenfield, and Hargreaves, 2012). Therefore, in order to support creative processes, the researcher conducted an observation in order to understand the procedure of creativity and become aware of the field, such as the role of the teacher, learning atmosphere, school curriculum, pedagogy and cultural and social contexts, that may stimulate or diminish the process of creative development.

2.2.3 Creative product

'Creative product' refers to output of creative work (Vogel, 2014). The key characteristics of creative product generally include the creation of something new and something useful or imaginative (Averill, 1999; Craft, 2003; Csikszentmihalyi, 1997; Poincaré, 1970; Runco, 2008; Ciez-Volz, 2008). This is clearly present in the work of Beghetto and Kaufman (2009), who defined creativity as novelty that is useful. Moreover, creativity has also been explained as the product of the integration of attitudes, abilities, motivations, skills and environment (Ripple, 1999). Similarly, Amabile (2001) considers creativity as being concerned with the novel and appropriate. This is also reinforced by Kaufman and Sternberg (2010) highlighting that 'a creative response to a problem is new, good, and relevant' (p.55), whilst Dust (1999) stated that the features of creative product include practical, useful and/or artistic qualities, which are judged by the particular circumstances or society.

Examining the practical concepts of the creative product in educational research, two previously acknowledged theorists, Guildford (1950) and Torrance (1963), identified four traits of the creative product based upon creative divergent thinking: fluency, flexibility, originality and elaboration. Fluency represents the ability to create many ideas; flexibility involves the ability to consider different categories and perspective. Originality involves the ability to create unique ideas, and elaboration involves the ability to generate ideas with additional details. This concept has been used to create tests such as Torrance's Test of Creative Thinking (TTCT), as noted earlier, and the Thinking Creatively in Action and Movement (TCAM) test. These notions have spread across the world and such tests have been adopted widely in order to analyse creative ability. However, these concepts of creative product, based on divergent thinking, cannot realistically cover all the dimensions of creativity and may not always be practical for testing young children (Vogel, 2014). This led to other researchers proposing different views of the creative product. For example, Amabile (1983) identified creative products as both the products and the outcome of the 'behaviour resulting from particular constellations of personal characteristics, cognitive ability, and social environments' (p.358). She recommended that 'a product or response will be judged as creative to the extent that (a) it is both a novel and appreciated, useful, correct, or valuable response to the task at hand, and (b) the task is heuristic rather than algorithmic' (p.360). In

this view, creative product are a result of generating creativity that can be either concrete or abstract outcome, such as a product that people create and can take the form of artwork, musical compositions, written document, and other inventions or the abstract outcome that takes the form of the ideas that people express or the responses that people make.

One important point is that the criteria of creative outcomes is often judged in the eye of beholder or spectator (Treffinger, Schoonover and Selby, 2013) and is often subjective in nature. In this case, Treffinger, Schoonover, and Selby (2013) explained that the creative outcomes we create are often used to assess or value the level of creativity. The authors noted that, sometimes, an individual may be involved with creative work when the results may not be great (ibid.) because the teacher, coach, or supervisor may create expectations about the results or outcomes. In the classroom, therefore, it is important to bear in mind that the teacher needs to appreciate or assess creative product after the consideration of age appropriate, activities and outcomes as well as the experience of the creator or learner.

Therefore, in early childhood curricula and practice, scholars suggest that the creative product may involve the traits of creativity such as novelty, originality, value (Craft, 2001), surprise, originality, beauty and usefulness (Boden, 2004) and uniqueness, unexpectedness and functionality (Sternberg and Lubart, 1995). This is associated with the process of producing unaccustomed combinations of ordinary ideas towards creative outcomes. The outcomes of creativity in preschool settings may take the form of ‘artefacts’, including paintings, sculptures, pottery and origami et cetera, and ‘ideas’, including concepts, poems, musical compositions, scientific theories, cookery recipes, choreography, or even jokes. Importantly for this study, the criteria of the creative product helps the researcher to capture the creative outcomes that occur in the settings.

2.2.4 Creative press: the school as the place for creativity

Creative press refers to (a) place where a creative person is, (b) where the creative process occurs, and (c) where the product is produced (Garcs et al., 2016). Isaksen (2007) confirmed that creative press is associated with a set of factors, especially individual and contextual ones such as the learning climate and culture. Soliman (2005) emphasised that the press should be considered as the important connection between individuals and environments and the

accessibility and conditions that hinder or promote creativity. As regards the relevant to culture, Amabile, Conti, Coon, Lazenby, and Herron (1996) and Jordanous (2015) suggested that studying creativity through press aspects must be considered (a) the way the environment influences the person who creates and recognises creative work, and (b) the way the person creates and is criticised about their product.

In reality, school is the place (press; Rhodes, 1961) that is associated with the environmental factors that influence the creative person, process and product. The environment refers to the context: physical or social factors that influence creativity (Rhodes, 1961). The physical element includes a range of materials and equipment; the accessibility of materials and equipment; an opportunity for children to engage, combine and create their own ideas, products, and representations; opportunities to play alone, with peers, or with adults; display; and resources. It reflects a variety of learning strategies and cultural contexts, and also relates to time for play and the exploration of materials, equipment and events (Duffy, 2006). Undoubtedly, the materials and physical environment, as well as the opportunities to access and ensure creative incubation, have a significant influence on facilitating the passion and motivation of individuals to make creative outcomes.

Beyond the physical environment, several researchers have emphasised the interaction between subjects and the social environment in motivating creativity, rather than focusing only on objects. Feldman, Csikszentmihalyi, and Gardner (1994) stressed a threefold concept of creativity originating from the interaction between (a) an individual, (b) a field (culture and social context), and (c) the domain, such as the organisation or structure of a body of knowledge that is linked with the individual. They pointed out that the creative press includes the relationships between children and the stimuli in their social and cultural contexts that prompt them to become curious and to make choices regarding activities. Furthermore, Mellou (1996) stated the role of the environment in promoting creativity and that it should involve multi-directional interactions between the individual and the environment in order to enable creativity. She highlighted that in providing opportunities and good reinforcement, a good physical environment changes the individual in terms of intelligence, competence, and personality. This agrees with Wellhousen and Crowther (2004), who suggested that the quality of environment is an important factor for inspiring children, for giving them opportunities to

work individually or as a group, and possibly for helping them plan to work freely. Amabile and Gryskiewicz (1989) argued that the following eight elements of the environment promote creativity: adequate freedom, challenging experiences, appropriate resources, a supportive facilitator, diverse and communicative colleagues, recognition of previous knowledge, a sense of cooperation, and a supportive organisation.

On the other hand, early childhood education is complex and sometimes there are resistances from teachers and pupils, structural, processual, and cultural elements, time, and resources and governmental policies, which act as possible barriers to creativity development (Garcs et al., 2016). Keller-Mathers (2011) indicated two steps that are important to promote the development of creative learning and teaching in education: (a) recognising the importance of creativity for oneself and others; and (b) acknowledging ways to develop and foster creativity in the classroom. Fryer (2006) stated the obstacles that may hinder developing creativity include (a) being overloaded with work, (b) insufficient preparation time for classes, (c) large class sizes, and (d) insufficient resources. Edwards, McGoldrick, and Oliver (2006) revealed that teachers are apprehensive about allowing pupils to take risks in a context that does not admit failure and they sometimes have insufficient resources and, in particular, time.

In summary, the creative context is an important factor in fostering creativity. As, in developing creativity, the creative process and product are associated with the ability to create original ideas, engage with creative processes, apply a variety of new ideas, and work with an open mind to manage new situations. Indeed, the learner, as the creative person, is inevitably associated with the creative processes and press. In the classroom, a learner's creative behaviour can be generated when they do not fear new thinking or they are keen to think creatively. The physical and social environment, learning atmosphere and opportunities have a great influence on creating passion and motivation in individuals to prepare, to engage activities and to work creatively. Nevertheless, the adult's role and their perception can be the main barrier to creating a supportive climate or enabling the child's ability to think 'outside the box' and adopt a creative approach. Therefore, this study considers the school as the press that is associated with the organisational culture, learning climates, resources, and practices that influence the creative person, process and product. This includes teacher's conceptions of creativity, curriculum, pedagogy, the roles of Thai teacher, spaces, resources and tools, and

cultural contexts that often influence the child's creative learning and the process of developing creativity in the classroom (see in section 2.4).

2.3 Creativity, culture, and education

This study focuses on culture influence as the 'press' (Rhodes, 1961) that influences creativity and creative practices. Culture is the common expression of humanity and the expression of its creativity (Attali, 2009). Many researchers propose a wide range of definitions, involving interpretations of cultures and national perspectives which may vary according to continent, country, town, and local community (Hofsted, 1980; Tronperaars, 1992), gender (Martin, 1992), race (Cox, 1993), occupation (Van Maanan and Katz, 1976) and religion (Blauner, 1964). Isaksen (2007) indicated that culture embraces the internal and external factors that stimulate and hinder creativity. The external factors include town, country, politics, or social systems or differ according to uses of a variety of technologies. The internal factors consist of motivation, confidence, level of trust and openness, and acceptance of the group members. Scollon, Scollon and Jones (2012) noted that culture is the way of life of a group of people: the behaviours, beliefs, values and symbols that they accept, generally without thinking about them, and that are passed along by communication and imitation from one generation to the next. It constitutes the social system that helps to define people's perspectives, knowledge, talents, social values, industries, and civilisations in a particular context (Derksen, 2007).

Among the many perspectives on the term culture, the word culture in this study refers to 'school culture', which focuses on the school context, people, process, procedures and place that surround and influence a person's feelings, attitudes and actions (Csikszentmihalyi, 2005; Amabile, 2010). Before moving on to the cultural influence on issues of creativity, this section explicates the meaning of 'school culture' in order to give a clear focus on the perspectives of the term and the views on creativity in the Thai cultural context.

2.3.1 School culture

School culture is described as 'life inside schools' (Waller, 1932). Deal and Peterson (1999) defined that school culture consisted of 'unwritten rules and traditions, norms, and expectation

that permeate everything: the way people act, how they dress, what they talk about, whether they seek out colleagues for help or don't, and how teachers feel about their work and their students' (pp.2-3). Schoen and Teddlie (2008) noted that school culture provides pupils with 'an identity of their own culture, with complex rituals of personal relationships, a set of folkway, mores, irrational sanctions, and moral codes' (p.132). However, several educators have indicated that the school culture or ethos is composed both of tangible and intangible elements and that it is difficult to define and assess the criteria of school culture in particular settings. Many researchers have, however, agreed that school culture can be analysed through 'symbols, rituals, ceremonies, officially endorsed statements about mission and vision in prospectuses and the internal and external appearance of the school' (Deal and Peterson, 1999).

Looking inside the classroom, the local or school culture influences several aspects of how the school and teachers function, the physical and emotional safety of students, the regulation of the classroom, or the way in which the school is comprised racially, ethnically, or linguistically, as well as its culture diversity (Schoen and Teddlie, 2008). Pupils build up their understandings of the culture and experience a range of patterns of activities, rules and support from social activities (Cole, Hakkarainen and Bredikyte, 2010). Factors such as the opportunities for challenges, freedom, support, trust, openness, playfulness, humour and risk-taking can play a big role in creating the passion and motivation required for individuals to become curious, active, and willing to make choices regarding activities and to work creatively (Al-Suleiman, 2009). The next section, therefore, indicates the cultural influence on issues of creativity and the views about creativity in Thai context. It focuses on creativity, culture, and education in that Thai context including creativity and Thai culture, the school ethos in Thai education, as well as the cultural norms, seniority, tendencies to conformity and Thai learning style**.** The aims are to indicate and analyse the literature that relates to creativity and Thai culture specifically and to point out how culture may be influential in research settings.

2.3.2 Creativity and Thai culture

The meaning of creativity in Thai society can be seen in relation to the people, their abilities, and their attitudes. Thai creativity can be comprehended as unique since Thai people are fond of blissfulness, a sense of humour and friendly attitudes (Cheerapan Bhulpat, 2006). Any disagreement or arguments are handled with smiles, and they do not blame one another for the issues. In society, the whole attitude is summarised by the words 'sanook' and 'sa-ngob', which mean, life should be fun and peaceful (ibid.). Fun, friendliness and humour can be seen as ingredients for creative thinking as they put people at ease and build up the positive energy needed to work and deal with problems together (Duffy, 2006). For example, people make poetry, antiphonal singing, or different kinds of Thai verse forms which use alphabet rhythm, vowel rhyme, or even spoonerisms, to create a sense of fun while still representing the true or imaginative story. While there is only limited research into the level of fun and sense of humour in terms of creativity in the Thai classroom, the advantages of creativity and positive emotion were noted by Cecil, Gray, Thornburg and Ipsa (1985), who observed that a sense of humour establishes a fertile atmosphere for creativity as persons are more inspired when they are happy and relaxed. In comparison, the idea of creativity and sense of humour is explained by Gedo (1990), who notes that creativity is 'the healthy enjoyment of the search for novelty' (p.35) and focused on creativity as a lifelong and continuous process. In this sense, being a creative person also involves the process of producing novelty and it comes with an emotional reaction. The combination of cognition and emotion can spark creative ideas and new creative ideas can inspire the human senses.

On the one hand, Thai creativity occurs in the form of inventions or processes that are connected with nature, which are called local or folk wisdom: such as, Harte cuisine, wickerwork, crafting, or painting in the temple et cetera (Trueplookpanya, 2012). This view of creativity clearly aligns with the view of Anoumou and Formella (2016), who emphasised that Eastern creativity is related to inner sense of expression or re-interpretation of tradition. This can be compared to the work of Mirowsky and Ross (2007), who defined creativity as a 'productive activity involving originality, resourcefulness, and self- expression' (p.385).

Trueplookpanya (2012) links Thai creative innovation to creative problem-solving. For example, local innovation has been employed to solve extemporaneous issues such as a Thai traditional house being built from a wooden structure and raised on stilts to deal with the tropical climate and flooding in the raining season. This view of creativity demonstrates a process for dealing with an issue or developing creative invention. This is because creativity is a process of creating innovations which usually occurs to fill in the gaps, 'paradoxes, opportunities, challenges, or concerns and then searching for meaningful new connections by generating many possibilities, varies, unusual or original possibilities, and details to expand or enrich possibilities' (Treffinger et al., 2002, p.7). In the old view of creativity, the physical and social context seems to motivate much of the creativity and aesthetic knowledge as a part of everyday life rather than motivate people to create scientific products or innovative outcomes.

When the world evolved into the modern era, technology became a part of creative activity and achievement. This new form of creativity is defined as the ability to create interesting and new meanings linked to beliefs, customs, and culture (Thailand Creative & Design Center, TCDC, 2017). For instance, the Thailand Creative and Design Center (TCDC, 2017) values creativity and human imagination and produces new and useful products, creating beauty and value based on inherent skills, local resources, and cultural values. New creativity is dominated by everyday perspectives on raising aesthetic standards, building up authentic ideas, and enhancing self-image and self-esteem (TCDC, 2017). This aligns with the work of Beetlestone (1998), who states that creative ideas can be used both to increase aesthetic pleasantness and produce creative practical products. The combination of new and old creativity is explained by Smith (1973), who notes that creativity is the ability to engage an old creative capacity and create new outcomes.

Creativity in the Thai social contexts are associated with new, useful, aesthetic innovation and practical outcomes that relate to the values of a certain group of people in particular circumstances and contexts. Besides this, it focuses on creative people who are able to cope with problem-solving, transformation of tradition, and having a sense of aesthetics, sense of humour et cetera. These characteristics of creativity seem close to the views of Anoumou and Formella (2016), who noted Eastern creativity relates to an inner sense of expression,

searching for new points or re-interpretation of tradition, creative innovation and an ecological orientation. Thus, Thai creativity is viewed different from the Western view of creativity, which focuses on 'being different from conforming and as requiring a non-habitual rather than habitual behavior' (Thurston, 1952 cited in Al-Sulaiman, 2009, p.53). Much of this implies that Thai creativity involves novelty and originality that is valued through social judgement and creative insights that arise from the regeneration of existing knowledge and materials.

With all of these definitions in mind, it is clear that creativity is a positive term in Thai society, yet there are few studies that show a strong emphasis on the different views of creativity in Thai preschools. This reveals the interesting nature and importance and the originality of this study since it investigates teachers' views of creativity towards their own practice in order to understand children's creativity in Thai classrooms and how teachers can be helped to deliver creative teaching and creative learning in their settings. Centrally, the overall aim is to establish the perceptions of creativity, creative practice and culture both theoretically and practically in two selected cases in Bangkok, Thailand.

2.3.3 The school ethos in Thai education

School culture, or school ethos, provided by stakeholders, encompasses the nature of school culture, climate and philosophy that impact directly on learners' affective and intellectual learning (Glover and Law, 2004). The ethos is customarily embraced by both formal and informal manners, implicit or explicit elements, values and beliefs (Opedenacker and and Van Damme, 2007). Smith (2003) observed that school ethos is created though the interplay between the culture of the practitioners, learners, parents, and local community and the school's value system, mediated via curriculum, policy, and learning programmes. It can be moderated by the nature of the educational practices or qualities such as school size or timing. In addition, McLaughlin (2005) proposed that the ethos has an impact on shaping dispositions, virtues, the personality and the practical judgement of individuals in a setting in which tradition, pattern, and emulation play an important role. This may suggest that a school ethos progressively influences teachers' performances, individualities, professional development et cetera, which are consequently reflected in learners' achievements; this enables the practitioner to figure out how and why they act in particular ways and explains why their

actions are different in different schools (Flores and Day, 2006; Harrison, Dymoke and Pell, 2006; Kukla-Acevedo, 2009; McGinty et al., 2008; Sweetland and Hoy, 2000).

In Thailand, scholars have integrated a mixture of principles and theories of early childhood learning and development into the local education system. The National Education Act of Thailand indicated that education should attain full development of the pupils to enable them to become virtuous, competent, and happy. The education ethos embodied in this document pointed out the holistic aspects such as the physical, emotional, and intellectual spheres, knowledge, morality, integrity and desirable way of life, which are based on the traditional behaviour of Thai culture: love, care, local culture, language, the mental environment, and family and relatives (Office of the Education Council, 1999). The national values and goals place the importance of three predominant education goals: for a learner to be 'capable, virtuous, and happy'. From this statement, the concept of 'capable' can be linked to creative competence or intellectual ability associated with generating originality and bridging unknown knowledge or unexpected ideas (Ministry of Education, 2008). The 'virtuous' characteristic refers to moral goodness, contribution to society, and connections between old and new knowledge (Rudowicz and Yue, 2000), which involve social conformity and harmony, and the approval of family and social groups. This is a framework that impacts on people's good behaviour and creativity at the same time. 'Happiness' may refer to creative emotion or mental well-being.

The notions of 'capability, virtue and happiness' may appear as significant factors which influence how teachers provide creative practice, how children learn to think creatively, and the interaction between learner and teacher in cultivating children's creativity in the preschool setting. For instance, Thidarat Hantako (2013) studied the 'capability, virtue and happiness' of students in upper secondary education after using problem-solving learning methods in the subject of chemistry. Another article, written by Surachai Kosupat (2014), emphasised this ethos was linked to the 'sufficiency economy' philosophy of King Rama IX. The authors suggested that the learner should (a) work as a knowledgeable person and create explicit outcomes, (b) work with patience, commitment, *Dhama*, and accuracy, (c) be humble, (d) work for the social group, (e) listen to different opinions, (f) work with determination and diligence, and (g) work with honesty and gratitude. However, the school ethos in relation to

student disposition or good behaviour may shape the conditions for learning, which might promote or limit learners' efforts in being creative (Munn, 2008). Exploring the school ethos can illustrate the beliefs, the relationships between children and teachers, the children's self-discipline, and a positive classroom climate, which determine either a positive or negative climate of learning in cultivating children's creativity in this specific setting.

2.3.4 Cultural norm: seniority, conformity, and creativity in Thai education

Moving to one important point, education in terms of the Thai cultural norm is based on social values such as respect for seniority, protocol controlling people's behaviour, and the nurturing of good manners and politeness (Rojanapanich and Pimpa, 2011). These are traditional social values that are embedded in the family, school, workplace, and in wider society. This conforms to Hofstede's views of Thai culture: that it focuses on harmony, conformity and seniority in terms of age, sex, status or wealth.

> Thailand's culture is, in Hofstede's terms, a strongly feminine, collectivist and high power distance culture… (Hallinger, 2010)

In the views of Hofstede, the 'feminine' aspect leads Thais to place a high value on seniority, social relationships, and seeking harmony and avoiding conflict. Meanwhile, the collectivist is obviously in a long-term commitment to their member group such as a family, teacher, friends and communities. The society cultivates relationships where people take accountability for their companions in the group. This element leads to conformity within the group rather than a creative individual. Additionally, a 'high power distance' means that there are high levels of respect, loyalty and deference to their superiors and inequalities are accepted in society. Thus, the authoritarian attitudes toward work are more formal and the communication flow is controlled. It is assumed that these characteristics shape behaviour to show great deference towards the senior status in all social relationships. There is, therefore, a cultural assumption that teachers may hold seniority in order to control conformity and harmony rather than to motivate uniqueness or original ideas for creative outcomes. We may compare this with Mulder (1996), who indicated that collective traditional ways of thinking

restrict critical-thinking skills and limit the process of learning through interaction. Craft (2002) explained that, in Eastern societies, discipline and conformity to tradition are highlighted, while conflicts are avoided to keep social cohesion. This is also asserted by Yuenyong and Yuenyong (2012), who note that Thai identity aims to support people to live peacefully together, and the social principle of conformity is based on respect for the norms of seniority and humility. Children are taught to be good children, to obey adults, and these are a powerful set of rules in the pursuit of social acceptance. In the classroom, it could, therefore, be assumed that we might see less discussion between groups of people. Children may avoid expressing their ideas, doubts, or disagreements with their seniors, including teachers, and this may have an influence on promoting their creativity.

In relation to neatness and the concept of the 'collective classroom', Thai learning styles may be compared to those in Japan where students there tend to be passive, reluctant to speak, avoiding risk and placing value on accuracy rather than being creative (Umemoto, 2001). Umemoto (2001) compares Thai and Japanese learners and notes that both tend to learn from rote memorisation of knowledge, and sometimes they avoid ambiguity and focus on giving the correct answers. The nature of Thai culture impacts on classroom interaction (Tharawoot, 2009). Students tend to be nonverbal in class and they are unlikely to join the discussion until they have been asked. Also, students are not taught to think independently and so they incline to be shy or feel that they lack capacity to analyse or synthesise knowledge and ideas (ibid.). In this sense, Thai students may desire to answer only the questions that they feel sure about, which seems to limit the process of creative thinking, risk taking, and decision-making processes.

Power (2015) investigated the factors affecting student creativity in higher education in Thailand. He indicated that participants disagree that Thai culture hinders their creative potential. Power argued that, 'Thai norms are less mono-culture than those represented in the literature' (p.190) and suggested that a hindrance to creativity can be varied according to school types, teachers' engagement, and the academic environment. He further explained that the restrictive nature of Thai culture, memorisation learning, and heavy workload make learners reluctant to take creative risks. This is further asserted by Dhonburi Rajabhat University (2009), who noted that all learners have an equal ability to think, but the obstacle

for developing creativity may stem from their perceptions of themselves as individuals or social reflections. They indicated that social barriers such as criticism, rejection or resistance, if accepted, can overcome people's confidence and ability to be creative.

Crucially, however, Wisadavet (1996) stated that Thai people are taught to have 'no self' (*anatta*) which means people should not be extremely rigid, as everything can change. Consequently, Thai people are reasonably flexible and pragmatic people who can understand and be open to new cultures and ideas. Indeed, scholars have indicated the advantages and disadvantages of the characteristics of Thai society in terms of developing creativity. With so many factors influencing the classroom, studying creativity in a real setting can demonstrate the advantages and the barriers of cultural context and social norms in order to develop the role of the school and educators to enable preschool education to flourish.

2.3.5 Creativity and Thai learning style

Schools are mini-societies that provide essential learning environments for learners about 'how to cooperate, what to expect from broader society and how to value fairness' (Gorard, 2010). In respect of Thai cultural influences, Pagram and Pagram (2006) emphasised that 'schools are the second home and teachers are the second parents to Thai children' (p.5). The relationship between teacher and pupil is comparable to the one between children and family since pupils are required to obey both their teacher and their parents. The role of the teacher was noted by McNamara in his report 'Country of the Month: Thailand' in The Guardian in 2000. He observed Thai society and analysed living in Bangkok, Thai students, and the Thai classroom. McNamara noted that Thai students love to be entertained as well as educated (2000). He stressed that the successful teacher needs to have four Ss: *Sanook* (fun), *Suay* (beautiful), *Suparb* (politeness) and Serious. *Sanook* (fun) is embedded in the learning and teaching process, which includes games, keeping things moving along, laughing to oneself and with pupils, rather than mindless repetition. *Suay* (beautiful) is about maintaining a beautiful appearance, such as a neat uniform, hairstyle, formal shirt, trousers, and polished shoes. This is also associated with the outer appearance of school work – such as neat report, handwriting et cetera – being valued over the substance. *Suparb* (politeness) covers everything from their style, behaviour in speech and action, staying calm, and not raising their voice.

Serious is about placing importance on a pupil's homework and exams, as well as how the teacher organises their classroom discipline.

There are, however, some disadvantages of the cultural context for the child's learning. Thipchutha Suphimaros (2003) analysed the Thai way of nurturing children, which aims to ensure safety and compliance. The author stated that the moral precept in the Thai context focuses on children's good manners and behaviour, which requires adults to act in the role of instructor, transferring culture from generation to generation. This is seen as the social machinery that keeps cultivating young people and controls adults' behaviour at the same time. The author indicated three important traits that are dominant in the Thai context including: threaten, tease and comfort. These three things were seen to be used sometimes to control children, to ensure some fun in the group, and to relieve guilt where misdemeanours have occurred. Thipchutha Suphimaros (2003) also claimed that the ways of nurturing children are underpinned by the duty to protect and support children in doing what are deemed to be good things but that this can bring fear, anxiety, or a feeling of being underestimated or unvalued. She suggested that Thai educators need to consider sensitive ways of educating children in order to equip them with a healthy learning environment.

After a close look at the relationship between culture and creative learning, many scholars have revealed the contemporary view on the influence of Thai culture on developing children's learning. Nevertheless, throughout the literature about school ethos, social norms, and learning style, there is no detailed investigation of the influence of culture on children's creativity and creative practices in the Thai context. It is argued by Bulach (1999) that if we aim to develop creativity in preschool, the educator needs to understand and identify a school's existing culture before implementing any change for education. This study, therefore, should explore the influence of the milieu, as the creative press, in promoting creativity in preschool classrooms. The reflection about cultural context can concentrate on existing knowledge about the complexity of the interactions between culture and creative schooling, which is necessary to bring about a healthy environment and transform the current practice to be more creative and efficient.

2.4 The impact of culture on creative person, process, and product

As mentioned earlier, scholars have agreed that culture, conceptual knowledge, social contexts and social values, create deep and enduring values, norms, and beliefs, and influence the creative person, process, and product (Ekvall and Ryhammer, 1999). Thomas Wolbers (2018), a Professor of Ageing and Cognition at the German Centre for Neurodegenerative Diseases, noted that people's behaviour is influenced by the culture they live in: mainly by social norms, contexts, and motives that drive us to follow, reject, or invert those norms. Since humans are surrounded with the dynamics of social actions and attitudes, cultural processes, and natural phenomena, culture directly influences individual's abilities, process, and output that are valued by individual and society. For example, Korea, with its robust social values, is a world leader in industry, which reveals that individuals may be more creative in some domains – such as technology related to their cultural background values and cognitive and motivational resources. This was exemplified by Glaveanu, Sierra, and Tanggaard (2015), who noted that a Korean student's creativity is embedded across five main subjects: Korean, English, Mathematics, Social Studies and Science. Meanwhile, in the curriculum in France, the concept of creativity in preschools is linked to children's lives in school. The curriculum emphasises creativity in children's development and individuality in order to support their uniqueness as a member of the wider community. This has highlighted the meaning of preschools as the place where children can learn and be encouraged to build up their relationships in order to become adaptive sociably. This approach aims to offer children the chance to learn and develop their sense of childhood by behaving, feeling, thinking, imagining and developing their creativity.

From the above we may infer that individual ability and human creativity are shaped by their culture and social context in which one lives and learns. The conception and uses of creativity may be influenced by the emphasis society puts on certain perspectives of creative originality and usefulness.

As the significance of the role of cultural influence is so crucial, this study focuses on culture influence as the 'press' (Rhodes, 1961) that influences creativity and creative practices. It

considers the key questions, such as: How does culture influence 'What creativity is?'; 'Where do we apply creativity in the classroom?'; 'How do people generate creativity?'; and 'How do people value their creativity or creative practices?' As mentioned earlier, in this study we considered 'place' as the variable factors in real fields including creativity in the Thai context, the teacher's perception of creativity, the curriculum, pedagogy, learning environment and the role of teachers. This aims to address how school culture, values, beliefs, and norms that can be found in the curriculum, pedagogical approach, teachers, and school contexts, and their impact on children's creativity and creative practices in two preschools in Bangkok, Thailand.

2.4.1 Teachers' perceptions of creativity

Generally, the perception of creativity emerges from the perception of its meaning (Runco and Johnson, 2002). It can be a subjective mental construction of meaning rather than the reproduction of reality (Morais and Azevedo, 2011). This is because individuals tend to see creativity through different lenses and their conception of creativity tends to be related to their practice and will consequently impact how they attempt to encourage creativity in the classroom.

From a pragmatic view, a number of reports have shown the numerous understandings, attitudes and practices of teachers towards developing creativity in different cultural contexts. Tan (2000) explored the perceptions of 162 Singapore teachers and the results revealed that creativity was perceived as novelty, uniqueness, imagination, and emotional and intellectual expression. Davies, Howe, Fasciato and Rogers (2004) studied the perceptions of creativity among a group of Postgraduate Diploma in Education trainees. The results revealed that the teachers have narrow views of creativity as art-based work involving imagination, expression and new ideas. In South Korea, the perception of creativity was studied by Hong and Kang (2010); the results revealed that creativity was perceived as newness and creative problem-solving. Ariffin and Baki (2014) examined the teachers' beliefs and observed actual practices to establish the factors that influence preschool children's creativity in Malaysia. The findings showed that teachers viewed creativity as involving art work and being related to the ways of expressing emotions and unexpected ideas. Ariffin and Baki reported the teachers' beliefs that ample freedom and flexible learning, open-ended questions, time, and learning materials help

to promote children's creativity. Moreover, Zeteroglu, Dogan and Derman (2012) studied the perceptions and opinions of preschool teachers on creativity in Turkey. The results demonstrated that 59.1 percent of the preschool teachers said that creativity is the ability to produce different, authentic, original product, and to do different things, while 35.5 percent of the teachers viewed creativity as the ability to have different and authentic ideas, think and perceive differently, deal with problems creatively and have freethinking. The research also pointed out opinions about creativity, which mainly involved the building up of individual and social development, self-confidence, thinking and problem-solving skills, and quality of life. Looking at the Thai context, unfortunately, there has been a lack in recent times of empirical study of Thai teachers' knowledge, perceptions, and attitudes towards creativity and culture. Most knowledge of creativity within Thai education, as presented in the research framework, mainly focuses on examining creative traits such as flexibility, originality, fluency and elaboration (Torrance, 1965) and imagination (Torrance, 1993) while studies about teacher's views of creativity and culture are scarce.

Therefore, scholars have argued that there is a paradox regarding teachers' perceptions, beliefs and their actual practices. Fryer and Collings (1991) conducted a study on perceptions of creativity with 1028 British teachers. Their findings showed that creativity was perceived differently, yet it was primarily recognised in terms of imagination, originality and self-expression. Fryer and Collings noted that that even though teachers believed that creativity can be developed, they did not mention any teaching methods to promote it. This is confirmed by Hegde et al. (2009), who stressed that stated developmental practices are not necessarily associated with actual behaviours and practices. It can thus be said that teachers may believe in the significance of children's creative development while failing to actually demonstrate the necessary and related characteristics in the classroom. Similarly, Croplay (1999), Scott (1999) and Alkus and Olgan (2014) have made interesting points that although teachers realise the concepts and value of creativity, the favourite pupils in the classroom are those who are less disruptive and demonstrate less creative behaviour during the learning processes. Joubert (2001) also discusses that teachers do attempt to apply the concept of creativity in their practice but some of them feel uncomfortable about teaching creatively since it is associated with risk-taking or unfamiliar learning plans. This shows the barriers that limit children's creativity may derive from teachers, biases regarding creativity only in terms of the

intellectual domain (Lee and Seo, 2006) and the lack of support from school administrators and parents (Aslan and Cansever, 2009).

As can be seen, several reports have shown the numerous understandings, attitudes and practices that teachers adopt when looking at developing creativity and creative learning. Teachers' perceptions of creativity present what they are, what they do, and what the consequential expectations of importance are for the learners in their classrooms. This study, therefore, analyses the perception and conception of creativity with regards to teachers and the school curriculum. This can be the first step towards understanding and clarifying the needs, conceptions, misconceptions or prejudices, and to determining positive attitudes. This results in establishing effective practices to cultivate creativity in the classroom (Fryer, 1996; Newton and Newton, 2009) as well as fill in gaps in teachers' perceptions of their practices in order to provide teacher training that will promote knowledge of creativity, creative practices, and the evaluation of creativity in the preschool classroom.

2.4.2 Creativity and curriculum: the view of creativity and creative learning in the early childhood curriculum

A traditional school, in which the course is designed and organised to provide both disciplinary and pedagogic expertise with explicit objectives, content, process and resources for learning. The fundamental structure of education consists of curriculum, pedagogy and assessment. Curriculum refers to 'what is to be learned', whilst pedagogy focuses on 'how it is to be taught' and evaluation emphasises 'how progress and attainment are judged' (NACCCE, 1999, p.64). According to Posner (1995), curriculum is the frame of learning which indicates the aims of study, learning plans, learning domains, school activities, learning resources, and learning assessments. The curriculum may be constituted from theory, the school ethos, pedagogy, or the principles or philosophy that leads to developing learning content, learning experiences, activities and materials that help learners to progress and acquire skills (Somporn Limcharoen, 2009). The elements were derived from diverse learning theories and principles, the children's strengths, their needs and their interests, and the children's family and cultural backgrounds (Copple and Bredekamp, 2009). These form the

direction of the school and provide the guidelines for teachers to promote creative achievement in the classroom.

Moving on to the creative curriculum, Teaching Strategies (2010) launched the Creative Curriculum with the aim to provide a guide on how best to help children to become creative thinkers. The curriculum drew from child development theory and careful consideration of the newest research into preschools. It noted that such action offers children 'opportunities for hands-on exploration and discovery that help build lifelong critical thinking skills and foster confidence' (Teaching Strategies, 2010, p.7). It stressed that the key features of a creative curriculum for preschool is based upon five fundamental elements: (1) positive interactions and relationships with adults that provide a crucial foundation for successful learning, (2) social-emotional competence, which is a significant factor in school success, (3) constructive purposeful play that supports essential learning, (4) the physical environment that affects the type and quality of learning interactions, and (5) teacher-family partnerships that promote development and learning (p.2). In addition, Teaching Strategies (2010) argued that the aim of the creative curriculum is not only to guide teachers to know 'what and how to teach children but why particular practices are effective' (Teaching Strategies, 2010, p.1).

We may compare the formulation above to Rose (2009, cited in Alexander 2009) in *The Cambridge Primary Review*, who highlighted the need for a creative curriculum not only to develop essential knowledge, skills and understanding, but also to inspire and instill habits of learning that become fundamentals for later life. He noted the need for a clear understanding of the intertwined approaches through which learners learn and develop, as well as a well-planned and clear curriculum that improves independent learning and engagement with activities, and offers opportunities for learning individually and working with peers. He stressed that, 'children must not only learn what to study, they must also learn how to study…' (Rose 2009, p.9). To reach a high quality of teaching and learning, the curriculum needs to identify vibrant objectives, values and learning entitlements for education.

In reality, creativity in the curriculum can be conceptualised in different dimensions, such as creative activity, creative learning or creative teaching. For example, in England, creativity was mentioned in the 'creating and thinking critically' domain in the Early Years Foundation

Stage, 2012 (Craft, 2001). This emphasised the importance of learners' thinking development in terms of having their own ideas, making connections and making their own decisions to do things (Foundation Stage, 2012). In addition, creative development has been emphasised as an area of learning in the Early Years Foundation Stage through art, music, dance and drama – which clearly refers to the arts areas. The curriculum has not treated creativity as a subject but has implied that it is related to the ability to link different areas of learning (Qualifications and Curriculum Authority [QCA], 2004 and 2005). Here, creativity has been described as the ability to make connections, create innovation, use imagination and originate ideas. In order to develop creativity, the curriculum suggests the characteristics of effective learning, including play and exploring, active learning, and creating and thinking critically – by having their own ideas, making links and choosing ways to do things (QCA, 2000).

In Scotland, the curriculum draws a clear distinction between the terms creative process, creative skills, creative learning and creative teaching (Maxwell, 2013). The curriculum emphasises the 'creative process' should explore multiple viewpoints, test out ideas and develop and refine them, estimating whether they are effective and useful or not. 'Creative skills' refers to the learner's ability and capacity to understand and engage with the creative process. 'Creative learning' describes the range of activities and methods used by learners that support creative developments and skills. 'Creative teaching' focuses on the teaching and learning activities that aim to develop creative capacity. This is related to the process of acquiring knowledge and understanding contexts as well as the process of applying knowledge to the original topic or issue.

Some curricula have clearly pointed to creative processes, including creative learning and creative teaching in specific learning domains. For example, in Sweden, creativity is shaped through language, literature, art, craft (such as textiles, woodwork and metalwork), music, movement and drama. In New Zealand, the National Education Goals set a balanced curriculum, covering seven essential learning areas such as arts, languages, mathematics, sciences, technology, social science, health and physical well-being. It places importance on the diversity of ethnic and cultural heritages and identifies creativity linked to arts such as dance, drama, music, visual arts et cetera. Meanwhile, the curriculum in Germany places emphasis on informal schooling which concentrates on play, group work, and other flexible

approaches to serve the individuality of each child. Creativity is placed as being as important as religious education, living in a community, communication, nature and environment, and health education. Meanwhile, we may note that in Hong Kong, creativity is found in all levels of education, which includes many learning domains such as the arts, sciences, mathematics and humanities (Hui and Lau, 2010). The development of creativity in Hong Kong is currently in transition from a serious formal pedagogy to informal playful learning. This is confirmed by Hui et al. (2015), who note that playfulness and arts-enriched learning can support children's creativity in the classroom. In the Republic of Korea, student's creativity is embedded across five main subjects: Korean, English, Mathematics, Social Studies and Sciences (Glaveanu, Sierra, and Tanggaard, 2015).

Some curricular emphasis is placed on the importance of the social environment as a factor to foster children's creativity (Moss and Petrie, 2002). The pedagogy emphasises the child as a whole: a child with a body, a mind, emotions, creativity, and a social and historical identity. Notably, education in Sweden has undergone extensive reform (Glaveanu, Sierra, and Tanggaard, 2015) and creativity is used as a central learning issue and as a combination of imagination and the desire for learning and doing (ibid.). In Australia, the curriculum for pre-compulsory education (0-5/6) refers to children's play, exploration, conversation, interaction, imagination and responding to the social contexts with pure enjoyment.

In the Netherlands, the principles of primary education for children aged 4 to 12 aim to promote consecutive developmental processes and perform their individual progressions. It considers the learners' mental, emotional, social and physical development as a foundation for creative behaviour in a multicultural society.

The curricula noted above show that creativity involves social learning processes in which creative achievement occurs through emotional expression and the interaction between creative people and their environment. In Japan, the curriculum emphasises the affective domain as much as the cognitive domain of children's creative development. It encourages a focus on love, trust, safety and a healthy mind and body to foster self-confidence, independence, and cooperation, inspiring the interest of language users in daily life, and cultivating the sensitivity and capacity of society and environment. Creativity is used for

enabling children's subjectivity, problem-solving, and their ways of learning and thinking through active learning and experimental experiences in nature, social activities and field study.

When we compare all the principles of the curricula, many of them relate creativity to learning in nature, art, crafts, literature, and engaging with innovation and technologies on a daily basis. The common element of creative curricula is a regard for the child's development, the equality of children, the variety of processes and resources, learning spaces, time, opportunities and positive support for children – in order to develop children's creativity. On the other hand, in England, Teaching Strategies (2010) argue that the aim of the creative curriculum is not only to guide teachers to know 'what and how to teach children but why particular practices are effective' (Teaching Strategies, 2010, p.1). The authors have identified the strength of the creative curriculum as 'the important balance between applying a general knowledge of child development with particular knowledge a teacher gains by forming a relationship with each child and family' (Teaching Strategies, 2010). This accords with Rose (2009, cited in Alexander 2009) in *The Cambridge Primary Review*, who highlighted the need for a creative curriculum not only to develop essential knowledge, skills and understanding, but also to inspire and instill habits of learning that be fundamentals for later life. He noted the need for a clear understanding of the intertwined approaches in which learners learn and develop, as well as a well-planned and clear curriculum that improves independent learning, allows engagement with activities, and supplies opportunities for learning individually and working with peers. Rose stressed that 'children must not only learn what to study, they must also learn how to study…' (Rose 2009, p.9). To reach a high quality of teaching and learning, the curriculum needs to identify vibrant objectives, values and learning entitlements for education.

To sum up, the principles for the early childhood curriculum and creativity must have regard for the whole child, positive interactions and relationships and social-emotional competence based upon social constructivism (Bruce, 2011). The creative curriculum should suggest what to teach, how to teach and how to develop effective practice in order to enable good teaching for creative learners (Teaching Strategies, 2010) as well as what to study and how to study in order to motivate learners for independent learning (Rose, 2009 cited in Alexander 2009).

Such principles emphasise the importance of the child's interests, needs and rights, as well as indicating that integrated learning should be paramount rather than only focusing on creativity in particular subjects.

2.4.3 Creative pedagogy and creative activity

Creative pedagogy emphasises the main strategies of creative practice, which are linked to both teaching for creativity and creative learning. In this sense, the definition of creative teaching and teaching for creativity has been differentiated in terms of teaching aims and strategies. NACCCE (1999) indicated that creative teaching involves 'using imaginative approaches to make learning more interesting and effective' (p.89), which allows teachers to encounter new challenges in their everyday routines. Teachers need to combine learning content techniques to stimulate curiosity, self-esteem and confidence among learners. This creative strategy can be very useful. Nonetheless, Craft, Jeffrey and Leibling (2001) argued in terms of teaching creative strategies that 'the former is regarded as a key component of all good teaching, but it does not guarantee that the children are learning or developing their own creative potential' (p.22).

Teaching for creativity strategies is highlighted in the Teaching Strategies project in England which aims to develop young children's creativity and behaviour (NACCCE, 1999). As such, it is indicated as simply 'good teaching' (Craft, 2001). The principle aim is to help teachers take responsibility for using a variety of techniques for encouraging creativity in the classroom. The strategy's aim is to make pupils feel valued, and for teachers to develop their ability to adapt between different styles and paces, the willingness to manipulate children on an affective level, the willingness to challenge students to engage, question and reflect, and the ability to place learning in the wider context of values (Cremin, Barnes and Scoffman, 2009). Overall, we see creative teaching focused on creative strategies while teaching for creativity tends to be focused on the process of teaching creativity as a final aim. It is suggested the flexibility of teaching styles and pace is the most common way to conduct teaching for creativity (Sternberg, 1999): 'varying the tempo, allowing time for students to have their say, a willingness to be spontaneous and the desire to give each child opportunity to excel, mark out those who are called creative' (Cremin, Barnes, and Scoffman, 2009, p.13).

This can be seen as a key component in fostering children's creativity as they include 'strong motivation, high expectations, the ability to communicate and listen, and the ability to interest and to inspire' (NACCCE, 1999, p.95).

By discussing the pedagogy and teaching approach, some researchers have addressed whether some pedagogical models are more effective that others, particularly with children's creativity. McGuinness (1999) classified the broad range of programmes planned for pupils of a wide range of ages into three models for promoting thinking skills. The first model involves interventions directed towards promoting thinking skills via structured programmes which are additional to the standard curriculum. The second category of approaches emphasises the subject-specific areas, such as creativity in art, science or language, yet this subscribes less value to the holistic nature of children's learning. The third aspect infuses approaches across the normal curriculum through systematic identification of opportunities for thinking skills development. McGuinness suggested that the more successful approaches are directed at cognitive education, which are associated with scaffolding techniques and the self-regulating approach. This aligned with the findings of Whitebread (2000) that the most successful intervention seems to involve an embedded approach comprising widely embraced perspectives on the value of framing children's learning and meaningful contexts. In this sense, Vygotsky (2004) asserted that creative pedagogy emphasises meaningful process and the contexts underpinning young children's creative learning because children recall their experiences in order to think and imagine something original, new and useful. In this sense, teachers should be able to experiment with ideas, enjoy being creative, and develop playfulness in themselves.

In addition, several further curriculum and pedagogical approaches may be noted that investigated ways to foster children's creativity (Toivanena, Halkilahtib and Ruismäkic, 2013; Donsky, 2015: Jackson, 2016; Woods, 1995). Donsky (2015) analysed the creative process in the Ontario Arts Curriculum, observing it begins with challenging and inspiring, before imagining and generating, planning and focusing, exploring and experimenting, producing preliminary work, revising and refining, presenting, performing and sharing, and finally reflecting and evaluating. Nevertheless, the authors argued that the student and teacher have different roles in expanding and promoting creative thinking, learning, and risk-taking. The

students exercise their creative ideas, take part in planning, and discuss and express ideas with peers. They make choices in encountering challenges and reflect on their learning. Meanwhile, the teacher introduces ideas, challenges and motivation, models, questions, structures learning, offers descriptive feedback, supports communication of ideas, make connections, and provides time for collaboration and reflection. Throughout these processes, it is important that the student gets the right level of feedback and reflection from peers and the teacher. The author noted that supporting the creative process is more than understanding the curriculum. There is a theme that runs through all creative learning in the arts as well as an atmosphere whereby the discourse, motivation, and challenges are valued and integrated into a creative process that can work for all learning across subject areas and promotes an integrated and interdisciplinary education.

Toivanena, Halkilahtib and Ruismäkic (2013) examined creative pedagogy as support for children's creativity in the drama classroom. The study revealed that the drama process provides rich experiences and active learning roles in for students. Drama participation is a significant means of making learning and social interactions. A creative atmosphere is permissive in the sense that it seeks to promote children's imaginations and their feelings towards expression through the arts, such as drama. In addition, children's creative abilities are considered on two levels: individual creative engagement and the group creative interaction in the classroom. The authors concluded that drama education has significant potential to promote children's creativity through its experimental, social, and children-activating nature. They suggested that teachers should give learners experiences to enrich their imagination and be motivated to use their variety of techniques to enhance children's creative-thinking skills, independent thinking and interaction abilities in the drama class.

Jackson (2016) highlighted pedagogical approaches to establishing environments wherein students learn, develop and achieve. The author aims to explore how teachers develop pedagogic practices to support environments within which students can exercise and develop their creativity. The findings demonstrated a model of ecology which pointed out the element of creative ecologies which promotes the student's creativity, including the knowledge, capabilities, experience, expertise, motivation and self-regulation of student and teacher as the central part of the creative process. Meanwhile, the learning around where the creativity

emerged included participation, engagement, discussion, inquiry, experiment, demonstration, fieldwork, tutorials, and lab supervision et cetera. However, the model includes the environment, which is considered as playing a big role in ecological pedagogy and includes cultural context (disciplines, school and team), pedagogy context (curriculum, teaching stance, aims, challenge, activities, feedback, assessment et cetera), resources and tools (knowledge, technique, equipment, materials et cetera), space (classroom, lab, studios, field, social, physical, culture and virtual environment), and affordance for learning and creative development (supplied by schools, teacher or family).

Cheung and Leung (2013) examined teacher's beliefs about whether creative pedagogy fostered creativity in Hong Kong. The researchers argued that teacher's beliefs are key to the delivery of a quality creative education. Their useful guidelines about creative pedagogy encourage creative behaviour, encourage children to express opinions, offer opportunities for discussion and cooperation, value children's inquiry and recommendations, and also accept unscientific responses and children's mistakes in the classroom.

Indeed, pedagogy is more than only teaching method, curriculum or assessment. It is all about the use of these things and how they require a good pattern of action, plans, activities and feedback. The ideas of creative pedagogy embody relationships, communications, learning contexts, rules, norms and culture. We may conclude that the creative pedagogy defines good or effective teaching; it involves teacher in learning how to cope with teaching and learning, have expert knowledge, not dismiss student views, find a better way of doing things, work around the curriculum constraints, allow children to communicate, respect student ideas, and ensure that creative talent is recognised rather than focusing merely on creative instructions or assessments.

2.4.4 The learning environment for the development of creativity

Early childhood education has been emphasised globally during this century but the origins of this interest can be traced back to the nineteenth century. The concept of early childhood education is seen as 'learning as growth' (Craft, 2005, p.31). It means child development or children's growth unfolds through interaction with physical environments. The ideas are derived from the pioneer pedagogue Friedrich Froebel (1887, 1895), who initially proposed

the idea of the kindergarten, which means ‘child garden’ (Craft, 2005, p.31). It focused ideally on using the both indoor and outdoor space as earning areas. As well as teachers or early childhood practitioners are seen as ‘gardeners’ (ibid.) that grow their young pupils.

Accordingly, it is essential to consider the classroom environment since children spend a lot of time in daily routines. To support a creative environment, it is acknowledged that the key to quality environment for young children is based on their interests and needs, and it offers opportunities for children’s diversity to be expressed (De Bruin-Parecki, 2008; Greenberg and Rodriguez, 2007). This study has adopted the key characteristics of a quality environment for preschool children noted by the IRIS Center (2015), including the physical, social, and temporal environment. The aspect of physical environment refers to the use of materials, equipment, space and the layout of the classroom, which practitioners can alter to support the child’s learning across developmental domains. The accessibility of the environment involves providing different toys and materials to stimulate and improve creative thinking, creating ample time and space, and placing the learning objects within easy access so that children are able to play and explore them on their own or with their peers (ibid.). The term social environment refers to the manner in which the classroom environment influences or impacts on the interactions between teachers and children. A well-organised social environment supports the positive interaction between children and adult, fosters positive peer relationships, and gives opportunities for adults to cultivate children for them to reach their creative development. Finally, the temporal environment refers to the timing, sequence, and length of routines and activities that appear throughout the school day. This can influence children to learn about a new world, to engage with new situations and have the sense of security to play with and explore new and original ideas.

Generally, the learning environment is the element that influences the creative person, process and product which help or hinder creative manifestations. In preschool settings, developing children’s creativity includes managing the relationships between children and the stimuli in their social and cultural contexts that prompt them to become curious, to make choices regarding activities, and to work creatively. Wellhousen and Crowther (2004) suggested the quality of environment is an important factor for inspiring children, giving opportunities for them to work individually or group work to plan and work freely. Amabile and Gryskiewicz

(1989) suggested that the following eight elements of the environment promote creativity: adequate freedom, challenging experiences, appropriate resources, a supportive facilitator, diverse and communicative colleagues, recognition, a sense of cooperation, and a supportive organisation.

Positive school contexts influence children's achievement and lead to positive interaction, healthy emotional development, and prevention and reduction of antisocial behaviour (Haynes, 1998). Marshall (2004) highlights the key characteristics of a creative environment provided in schools, including the physical environment such as learning resources, school documents and human resources, such as the classroom teacher. Duffy (2006) noted the creative environment includes a range of materials and equipment; an accessibility to materials and equipment; an opportunity to engage, to combine and create their own ideas, product, and representation; opportunities to play alone, with peers, or with an adult; a display and resources reflecting a variety of learning and cultural context; and time to play and explore material, equipment, and events.

The important concept, nevertheless, is that not only do the items or physical environment play an important role in fostering creativity but the people do too, such as the adult or their peers, and the social context has an essential influence on promoting children's creativity. These environmental issues were analysed as an essential part of the findings of this study. Therefore, the researcher looks at two levels of context: the macro-level, focused on school curriculum and pedagogy; and the micro level, focused on an individual classroom, the teachers and learner interactions, and the classroom environment. This chapter thus examines a wide range of research on creativity and school context, which includes curriculum, pedagogy, activities, the role of teachers, and classroom context. These have proved to be key factors that influence learning and learners' feelings, attitudes and actions (Treffinger, Schoonover and Selby, 2013). Subsequently, the discussion on teaching and learning for creativity and classroom climates in developing children's creativity is addressed.

Classroom climates can offer flexible opportunities and freedoms in order to make learning creative and memorable. Sternberg and Williams (1996) recommended the role of the teacher was to set classroom climate to encourage sensible challenges, provide ample time for children

to work with creative activities, and reward creative behaviours and products. Runco (1990) and Starko (1995) indicated that teachers should support unaccustomed ideas, and allow freedom of thought and choices. At the same time, Fleith (2000) contested that teachers could effectively promote creativity by establishing a relaxing atmosphere in the classroom. According to Alkus and Olgan (2014), a relaxing climate helps children to express their feelings and ideas without any pressure from the teacher. Dababneh, Ihmeideh and Al-Omari (2010) agreed that the classroom environment should offer opportunities to observe, predict, explore, experiment, investigate, infer and analyse new ideas.

In agreement with Davis and Rimm (2004), the actualisation of creativity in children requires decent learning conditions, which should include freedom, mental safety, and accepting mistakes and disagreement, in order to lead their creative expression. In fact, adults sometimes limit children's creativity by being overly didactic or prescriptive. Several factors can negatively influence the encouragement of promoting creativity in the classroom such as the pressure for educators to focus on mathematics or literacy skills (Melloue, 1996 and Prentice, 2000). Vygotsky suggested that adult, therefore, should act as facilitator, supporters, or models of creative person and person for developing creativity.

In summary, it can be said that the teacher's various roles, such as teacher-child interaction, setting the emotional climate, and activity preparation, have the potential to help children's social and cognitive development. Linking to the principles in the curriculum, positive interaction and attitudes, and efficient actual practices could form an efficient learning environment and an atmosphere which encourages children to become more active explorers and influence their creativity.

2.4.5 Teacher's role in developing creativity

In the classroom, the teacher plays an important part in shaping creativity. Csikszentmihalyi (1999) proposed that teachers act like professional gatekeepers who wield the power to define and place the value of creativity in the classroom context. Malaguzzi (1993) made a number of observations about the best conditions for developing creativity in young children. She states that 'the most favourable situation for creativity seems to be interpersonal exchange, with negotiation of conflicts and comparison of ideas and actions being the decisive elements'

(p.76). Later on, Kuperminc, Leadbeater, Emmons and Blatt (1997) revealed the positive school climate includes low level of pressure for students, while Runco (2003) noted that teachers need to demonstrate an interest in children's creative potential and foster them in order to generate their own personal interactions about knowledge and environments.

Besides this, the notion of the creative teacher refers to characteristics and the role of a teacher to cultivate children's creativity. The importance of the teacher's personality and children's creativity has been acknowledged by Saracho and Spodek (2007), who stressed that teacher's characteristics and professional development have an effect on their behaviour in organising classroom activities and learning environments. Runco (1995) emphasised that teachers' characteristics are essential to model creative behaviours and increase the amount of valuable, acceptable, and appropriate creative exploration in the classroom. Smith and Anong Visetsuwan (2006) noted that the characteristics and role of creative teachers in Thailand involve the use of open-ended questions and a brainstorming approach to stimulate children's ideas. Visetsuwan suggested the teacher needs to be a creative role model offering a creative learning atmosphere of freedom and openness, and should not prohibit learner's participation. This accords with Cremin, Barnes, and Scoffman (2009), who noted the qualities of the creative teacher include having 'confidence and conviction, humour and ability to inspire, wide subject knowledge and awareness that they were creative, and a clear sense of values' (p.10). Cremin, Barnes, and Scoffman (ibid.) outlined the abilities of creative teachers, which are to assist children to feel valued, to adapt their teaching strategies to different styles and paces, to be willing to facilitate children on an effective level, set challenging tasks and be able to engage and reflect ideas, and place the learning in a broader context of values. Shaheen (2010) also summarised the characteristics and roles of creative teachers which influence children's creativity, including flexibility, encouragement, support, passion, openness, receptiveness, an accepting attitude, and showing enthusiasm, empathy and dedication. This is reflected in the characteristics of the creative teacher, which include curiosity, independence, intuition, idealism, risk taking, and the ability to deal with unpredictable tasks (Torrance, 1965) and allow 'the individual to be more flexible and fluent, [involving] a richer flow of ideas and [results] in some novel or creative solution' (Sarsani, 2006, p.35).

Recently, the characteristics of Thai teachers were illustrated by an NIDA poll survey (2019) which investigated the characteristics of the Thai teacher based upon the Thailand 4.0 economic model: Smart People, Smart City, and Smart Industry. The survey showed that teachers are primarily expected to have a good moral attitude, a kind heart, honesty (26.98), a professional attitude to work, good role model status (22.82) and good knowledge and teaching skills (21.79). On the one hand, the participants indicated that teachers need to consider creative teaching through innovation by adopting social and moral learning along with the technology as well as changing the teaching methods: from learning by rote to creative teaching. Although the survey does not the present the impact of the characteristics of teachers on developing creativity, it showed the significant characteristics of Thai teachers and the characteristics of Thai teachers are mainly associated, with being the role model of moral goodness and professional teaching strategies from which we can infer their practice in the Thai classroom context.

In addition, some studies have also shown the significance of the adult's role in developing children's creativity (Rudasill and Rimm-Kaufman, 2009). Bundit Sribhudtangkul (2017) noted that, in the old Thai educational system, teachers played the main role in teaching and students rarely had a chance to think creatively and express their own ideas. In recent years, education has moved forward and the role of the teacher changed to become a facilitator rather than commander. Increasing numbers of teachers have developed their style of working with new technology and innovation to promote their creative practices and creative learning for the future classroom. Nisita Yoo-Umpai (2006) investigated the relationships between Thai teachers and children's creativity. She noted that the curriculum, school environment, and teachers play an important role in promoting creativity in preschool children. The participants in the study were 50 preschool teachers and 300 preschool children from 50 classrooms in schools in Bangkok. Notably, the results showed that teachers' own creativity was not significantly related to children's creativity. However, the results also showed that teachers' creativity was positively related to the teachers' characteristics. On the other hand, the results demonstrated that the teacher characteristics were positively related to children's creativity. The findings concluded that the teaching approaches and teacher's stimulations were positively related to children's creativity. Nevertheless, teachers' modelling was not significantly related to children's creativity. At the end of the research, Nisita Yoo-Umpai

recommended ways of teaching for creativity, such as using open-ended questions, accepting children's ideas, motivating children's interaction and giving them opportunities for experimenting, and finally giving positive reinforcement to the value of their creative ideas.

We may compare this to Bronson (2006), who stated that children's competencies are built upon positive relationships with adults, which is essential to their social development and academic success. It is suggested that teachers' verbal and behavioural reactions have the potential to help children figure out how to engage in learning tasks, develop skills and knowledge, and build up new understanding (Sharp, 2004). Similarly, Lilly and Bramwell-Resjkind (2004) investigated the correlation between teacher's behaviour and children's creativity. The researchers showed that there is a positive correlation between teachers' and children's relationships and children's creativity. They revealed that close relationships and the formation of trust and comfort are the keys which facilitate pupils to take risks and feel secure to take risks in their work. Furman (1998) also determined that there was a high correlation between teacher's behaviours and children's creativity, which included high numbers of questions, positive feedback on both divergent and convergent activities, low rates of discipline and assistant action. Indeed, positive interactions release chemicals that stimulate both the children's social and cognitive development (Furman, 1998). The quality of the relationships and a motivating class environment can help children internalise mature thinking skills and can influence their social-emotional ability, enthusiasm, and persistence in creative learning and academic achievement (Clifford, Barbarin, Chang, Early, Burchinal, Bryant and Howes, 2003). As a teacher plays the essential role in encouraging potential situations and reinforcing creative practices, this study concern the characteristics and behaviour of and relationship between teachers and children; it aims to reveal the factors promoting children's creativity and to find out how they can facilitate creativity in their settings.

2.5 Summary

This chapter provided an outline for this study. The overview of creativity reveals the meanings and misapprehensions around creativity in educational research. The discussion of High-C, pro-c, mini-c and little-c creativity illustrated the levels and concepts of children's creativity in school contexts. The literature review of the research on Four Ps creativity

introduced the framework of where from and how creativity flows in the classroom. Then, creativity, culture and education laid the foundation for the clear elements of Thai culture: school ethos, cultural norms and the learning style in the Thai context. Drawing on the literature about the impact of culture on the creative person, process, and product showed the role of culture in influencing the essential topics; this links to the research question of this study, including teacher's perceptions of creativity, the curriculum, pedagogy, and their role as teachers. The analysis of the creative press, places and cultural context provides information for the forthcoming investigation. Nevertheless, it is essential to address the interplay between the literature review and the empirical investigations, in that they both inform and are informed by each other, in order to plan for the further improvement of both the carrying out and analysis of the entire research project.

Chapter 3: Research methodology

Introduction

This chapter offers a discussion of the methodological issues involved in this study. It starts with the research paradigm, which includes a comparison of qualitative and quantitative research, then it focuses on the issues relevant to comparative case studies, sampling, participants and informants, and the context of the study. Furthermore, the chapter explains the nature of the pilot study and the tools for data collection and discusses more specifically the approach to data analysis, transcription and translation, validity/reliability/trustworthiness, and ethical considerations.

3.1 Research paradigm, ontology and epistemology: rationale for using qualitative research

Both main research paradigms, qualitative and quantitative research, were considered at the outset of this study in order to establish which approach would best achieve the research objective: to explore developing children's creativity in two preschool settings in Thailand. The differences between these two research methodologies led the researcher to analyse both the research ontology and epistemology associated with this study, with the aim of finding an appropriate research approach and associated tools to investigate these questions with rigour. These considerations are outlined in the following section.

Qualitative research focuses on the holistic understanding of rich, contextual and commonly unstructured, non-numeric data by gathering research data with the research participants in natural settings (Cohen 2008 and Creswell, 2007). The qualitative method is a flexible design approach that aims to explore the complex world of lived experience from the perspectives of the phenomena and people who live within a particular context (Schwandt, 2000). The qualitative research paradigm is based on the assumption that the human world is distinct from the physical or natural world (Patton, 2002) rather than measuring in controlled conditions to demonstrate a cause-and-effect relationship through hypothesis testing

(Denscombe, 2003). Such an approach allows the researcher to capture an insider's view and provide in-depth knowledge that may be influenced by multiple factors or phenomena in the field (Mason, 2002; Williams, 2000) as well as enabling the researcher to obtain unexpected information or explore issues that are often missed by scientific enquiry and allowing ambiguities and contradictions in the data (Denscombe, 2010).

Conversely, quantitative research, the fixed design, has its epistemological roots in positivism (Muijs, 2011). Quantitative research focuses on generating data in a numeric form that can be put into categories, or in rank order, or into units of measurement. Unlike qualitative research, the quantitative method involves pre-specified assumptions before collecting data which is usually displayed in the form of numbers. Quantitative approaches can be either experimental or non-experimental in design (Bryman, 2001 and Robson, 2011). The experimental design aims to measure the effect of one variable on another variable. The features of experimental design include introducing the research questions and assumptions, selecting the samples from the expected populations, conducting a pre-test on the sample, allocating and controlling the sample in particular experimental conditions, conducting a post-test on the formal hypothesis, and presenting and discussing the research findings (Stake, 1995). The advantages of experimental research can be used for laboratory experiments, experiments in natural settings, and quasi-experiments. Meanwhile, the non-experimental design, such as a survey, aims to describe the findings, predict events or phenomena in the future, and develop and measure the relationship between two or more variables (ibid.).

Comparing both research paradigms, it seemed clear that the most appropriate ontological and epistemological approach for this study was qualitative research, an interpretivist paradigm, which considers the subjective world of human experience (Guba & Lincoln, 1989). This presumes, a subjectivist epistemology, Crotty (2003) and is based on the view here is no single reality or truth since reality is created by individuals in groups. Epistemologically, the perspective of the interpretivist paradigm is that the world we investigate is run by beings who have their own thoughts, interpretations, and senses and knowledge of reality is a social construction by human actors (Leitch, Hill and Harrison, 2010). Thus, qualitative case studies will be used in this study to explore the concept of creativity and relevant issues in the preschool setting in Thailand.

Notwithstanding the advantages of using the qualitative method, points of weakness in such a study are inevitable. Primarily, it is clear that the setting is selected directly to serve the researchers questions rather than being randomly assigned. Equally, the smaller scale of evaluation and the limitations of the cases cannot be representative of the wider universe of activity in the field (Yin, 2012, p.18). Additionally, the interpretivist researcher relies on research roles and judgments. Thus, the study may suffer from the researcher's confirmation bias from subjective influences as part of carrying out the research and also as part of the analysis. These issues are addressed more fully in Chapter 3.10 as part of the sub-section on trustworthiness. It is also important to note that the researcher's positionality has been discussed earlier as part of Chapter 1 in order to demonstrate my personal awareness of potential bias in this study.

3.2 Comparative case studies

To answer the research questions, this study adopted case study research to concentrate on 'how' and 'why' questions (Myers, 2009). The main feature of case study research is its focus on describing process(es), individual or group behaviour in its field, and/or the sequence of the phenomenon in which the behaviour occurs. The case study method supports theory building (Yin, 2009) in areas where current theoretical and conceptual frameworks are uncovered or insufficient. Generally, there is no hypothesis formulated; however, the 'general ideas' or 'expectations' may be used as a guideline to the empirical research (Mouton, 2001). According to Ponelis (2015), the case study plays an important role in particular research situations:

1. Can the phenomenon of interest be studied outside its natural setting?
2. Must the study focus on contemporary events?
3. Is control or manipulation of subjects or events necessary [or possible]?
4. Does the phenomenon of interest enjoy an established theoretical base? (p.537)

As can be seen, the nature of case studies involves 'an intensive holistic description and analysis of a bounded phenomenon' (Merriam, 1998, p.xiii). This attempts to gain rich

insights from the participants' insights, feelings and thoughts in order to generate new understandings and meanings from the data collected instead of merely testing an existing theory.

Accordingly, comparative case studies were used to explore developing creativity in preschool settings. This is because a systematic comparative examination of chosen cases can illustrate the similarities, differences, and implications of the actions and social and cultural context that play an important role in directing the meaning and value of creativity either within the case situation or across case situations. The analysis can then argue for similar or contrasting results (Yin, 2003). This work is more than a checklist of practices but a descriptive component of actual performances, teaching and school policy that can determine the elements in which the development of creativity takes place along with their performances, challenges, limitations and strengths. The narrative description of the specific case/cases can help the researcher to avoid the customary critique of the large-scale research that 'too much emphasis is placed upon policies, plans, and structures, at the expense of research on the actual processes of implementation of these in practice' (Vulliamy, 2004, p.266). It enables the researcher to clarify the strengths and values of the research findings and 'create a more convincing theory when the suggestions are more intensely grounded in several empirical evidence' (Gustafsson, 2017, p.3). In this way, comparative analysis of two preschools can help the researcher to explore the similarities, differences, and patterns across the two cases in order to locate a common focus and goal about the what and how of creative teaching, the role of teachers, ways in which the learning environment is effective, and how and why a particular case fails in practice.

The case study method may same similar to other qualitative research, narrative research, and ethnography. However, they are different in terms of types of data collection and analysis. In narrative research, the researcher focuses on the stories told by participants and arranges these stories, usually in chronological order. On the other hand, ethnographic research is an exploratory or discovery-oriented research approach that examines the participant's behaviour or way of learning and teaching through the perspective of the cultural context in the school (Goodenough, 1976). The concept of ethnographic research is described as 'the study of people as they go about their everyday lives' (Buchbinder et al., 2006, p.47) and refers to a

'description of people or cultures' (Denscombe, 2003, p.84). The approach aims to interpret 'how a group, organization or community live, experience and make sense of their lives and their world' (Robson, 2011, p.79) and 'provides a detailed and permanent account of the cultures and lives of small, located tribes' (Denscombe, 2003, p.68). According to Aubrey et al. (2000), the role of an ethnographer is to observe and investigate people, what people do and why they do things in order to examine a group's social and cultural values. Thus, the ethnographer is required to spend a considerable amount of time in the setting to observe cultural phenomena.

Alternatively, the comparative case study is the systematic comparison of two or more data points ('case') gathered through the use of the case study method (Kaarbo and Beasley, 1999). The importance of comparative study is to gain experiential knowledge of a particular case and to obtain the best understanding of the selected case. This aims to investigate an empirical inquiry within its real world context (Yin, 2014) and to acquire data on human experience, opinions and feelings, as well as the comparison and relation between the group interpretation and phenomena in specific case. Unlike ethnography, doing a comparative case study allows the researcher to analyse the data either within the case situation or across case situations and argue for similar or contrasting results (Yin, 2003). The case study researcher is not required to live within the particular communities. However, this approach requires the use of a variety of research tools and techniques within the interpretative design, such as observations, interviews, document analysis, and examination of artefacts, in order to attempt to 'get into the head of the subjects being studied' and to understand and interpret what the subject is thinking or the meanings people are making in their contexts (Kivunja and Kuyini, 2017, p.33).

Finally, it is important to consider the advantages and difficulties in comparative case studies. The comparative case study focuses on holistic description and analysis of two cases rather than investigating a fixed assumption or testing cause-and-effect relationships to create scientific generalisation. The qualitative case study, nevertheless, is the systematic process of two cases using the case study methods. The researcher followed the *Steps to Comparative Case Study Research* (Kaarbo and Beasley, 1999) to assure systematic methods, including identifying specific research questions for focused comparison; identifying variables from

existing theory in relevant literature; drawing case selection; designing a comparative case study to guide to the data collection for the variables in the study; creating case study database; and analysing the comparison and implications for the theory. Furthermore, as the researcher plays a big role in gathering qualitative data, it may result in a biased view of particular events. The researcher, therefore, should be trustworthy and reflective (section 3.10) in order to prevent subjectivity and intensify the objectivity in the research. Eventually, the qualitative case study has created a large amount of detail about the individual unit, this requires time, cost, and effort in gathering and generating data (Baxter and Jack, 2008). The researcher considered time management in the time modes section (section 3.6.1) and a data reduction process in the data analysis section (section 3.8) to prepare well-organised of the amount of data, cost, and time used throughout the process of the research.

3.3 Sampling

This study was carried out at two preschools in Bangkok, Thailand. The selection of the school draw from the pilot study that implied the key elements that may affect studying children's creative development in the Thai cultural context: location, types of school, and attempts to develop children's creativity. One school, named School A, is a state school and is supported by the Office of the Basic Educational Commission and funded by the government. The other, named School B, is a demonstration school, run by a university and its fees are paid by parents. The key differences were in the size of the school and that the school were funded from different sources. However, both schools share similarities in providing education based on the National Curriculum and developing their own policy and curriculum for developing children's creativity in their settings. (See more in section 3.5 on the context of the study.)

The study employs a convenience sampling technique, whereby a researcher selects participants based on the needs, accessibility and interests of the research (Bryman, 2008). Importantly, the researcher considered the full range of information, observation and rich description which required cooperation with the school and participants. Good access to the setting is essential since it allows the researcher to collect rich information for analysis. Visiting and working in the preschool helped me to find a connection between the schools. Several schools had been contacted and asked to participate in this study but not all agreed to

take part since they were concerned about the political issues in the country (a coup d'état took place in 2014). Happily, the selected schools were open to granting the researcher access in order to conduct the research for educational purposes.

Considering that, the advantage of convenience sampling is that it is affordable, easy, time-effective and the subjects are readily available. The technique allows the researcher to choose members of a population that represent the target sample and maximise the appropriate range of specific participants that help to achieve the research aims and answer the research questions. Nevertheless, the researcher was aware of the disadvantages of convenience sampling, that this technique may not produce results that are representative of the whole population regarding the traits or mechanisms under research. This has been considered in more in detail in the Transferability part of section 3.10, *Trustworthiness.*

3.4 Participants and informants

The sample were a convenience sample of 60 children aged 4-5 years. There were 32 children in School A and 28 children in School B. In School A, the participants were 14 (44 percent) males and 18 (56 percent) females. The children were aged between 4 and 5 years (when observed in January 2015). In school B, the participants in the group were 16 (58 percent) males and 12 (42 percent) females. The average age of the children was 4-5 years in the class (when observed in June 2014). This shows there were no significant differences between the children in the sample group.

The key informant refers to the class teachers and the teachers who support certain activities such as the art teacher, the teacher in the playroom, and the teacher in the library. Four teachers agreed to be observed and interviewed. Case A included one class teacher and one support teacher who work in large groups with children. Case B included one class teacher and an art teacher who worked in a specialist art classroom. The teachers were selected because they were authorised to work with the children by the school leaders and are considered experienced and knowledgeable. Thus, they were considered able to reveal beliefs and practices behind the phenomena in the classroom. Sixty students in the two classrooms and

four teachers was considered ample to present different perspectives and gather rich information about the participants, settings and events in the case studies.

3.5 Context of the study

The context of the study is two preschools located in Bangkok, the capital city of Thailand. Bangkok Metropolitan is the centre of political, economic, social and cultural activities in the country. It is a megacity that combines traditional Thai culture and modern globalisation. As the capital city, people from other districts pour into Bangkok to work. The educational system in Thailand is divided into four levels: preschool (3-5 years old), primary school (6-12 years old), secondary school (12-18 years old), and higher education (18-22 years old; Ministry of Education, 2008). The preschool level is not compulsory, but the statistics show approximately 95 percent of children aged between three and six years received preschool education during 2010 (UNESCO, 2013).

There are two types of school, including both public schools and private schools. The majority of Thai children attend the public schools that constitute 82 percent of public education institutions in Thailand. Public school is organised under the supervision of the Office of the Basic Education Commission. Meanwhile, the remaining 18 percent of schools are private, operating under the supervision of the Office of the Permanent Secretary. UNESCO (2011) reported that the private schools serve the middle- and upper-income citizens who can afford to pay high tuition fees.

According to UNESCO (2011), the quality of education is reportedly affected by the location of the school, type of school, number of trained teachers and their ability to teach effectively, and the resources for learning. The quality of teachers is one essential factor in developing creativity in children. UNESCO (2011) reported that there are better educated and trained members of staff, better facilities and better financial resources in Bangkok and other major cities.

3.5.1 School A

School A was established in 1964. The school has developed its own policy and started applying a project-based approach, a whole language and literature-based learning approach, over the last few decades. The programme commenced in 2001 with a targeted school that first adopted the whole language Approach into the curriculum. The classroom was surround by a large amount of children's literature; the books were considered more important and were changed over time based on their learning content. The aim was to develop the language environment in the classroom by addressing issues such as meaningful communication, role modelling, teacher expectations, language play and experiments, positive reinforcement, respect for the unique child, and supporting self-confidence. Later on in 2006, the school developed a literature-based approach and tested the effectiveness of the programme in terms of the children's reading and thinking abilities. The principles of the programme are identified as 1) literature provides the main learning materials in designing classroom activities as the most easily accessed material for children; 2) learning activities are planned based on children's developments and their interests; 3) children participate in planning classroom activities; 4) the learning environment is supplied with quality literature; and 5) children learn through hands-on experience with peers and adults. Eventually, the overall aim of the programme is to enhance children's literacy skills, cultivate a love of reading in young children, and support the whole child's development.

Furthermore, the teachers had completed professional training in Early Childhood Education and had long experience of working with young children. They took part in activities to develop their practice, lesson planning and learning activities and highlighted creativity as their learning goals with holistic learning approaches. Through their efforts in developing such learning approaches, as well as the cooperation between education institutes, the school had been assessed by the Ministry of Education as deserving of a Royal Award for the academic year 2013. It was claimed the policy and practice cultivated knowledge acquisition and a love of reading, led to meaningful discovery, and supported the development of the child's morality and life skills.

The learning processes, both nationally and within the school, aim to open opportunities for children to develop holistic skills on a profound level. The school curriculum indicated creativity in art and craft activities, music and movement, free play, project approach, and literature-based learning. Creativity is emphasised in art activity since it helps children to reflect on ideas and imagination and cultivates children's creativity through drawing, painting, moulding, painting pictures, or creating artefacts. In music and movement activities, children use their senses, body language, and their speech to convey their emotions and creativity in the activities. In free play, children have free time to choose their own favourite activities and share their experiences and creative ideas with peers. In project-based approach and the literature-based approach, the creative process was the focus during the project. It allows children to be active and take part in choosing interesting topics and share the ideas during learning. The mission of the school is to set effective teaching approaches to improve children's literacy skills along with their creativity and life skills.

3.5.2 School B

School B, the first public preschool in Thailand, was established in 1939. It started providing the education for 30 children, but in the following year the number of children increased to 116. As the need for preschool education was increasing rapidly, the school also established a preschool teacher-training school in 1943. At the beginning, the curriculum was based on a Montessori approach, which focused on play and music activities, storytelling, and games for children, and also basic child-rearing practice. Later on, the school applied other pedagogies such as the project-based and whole language approaches.

In recent years, School B adopted the Early Childhood Curriculum of 2003 and added scientific thinking skills and thinking-process skills into the curriculum (see Table 2). The classroom activities had the aim of supporting children's thinking processes and the skills they needed to learn and discover conceptual knowledge, as well as to cultivate children's virtue and morality. The main activities consist of circle time, art activities, music activities, free play, library time, sport activities, and computer activities. The school believes that all children have a right to learn and address their own interests and needs. Teachers have a role to set and to fulfil the learning processes in order to cultivate the child's creativity.

Table 2: Scientific thinking skills and thinking process skills in School B curriculum

Thinking process skills	Scientific thinking skills
• Communication skills • Recognition • Listening • Talking and Explaining • Reading • Expressing • Knowledge acquisition skills • Investigating • Inquiring • Comparing • Gathering information • High-level thinking skills • Creative thinking • Problem solving • Planning • Hypnotising • Applying	• Observing • Prediction • Classifying • Measuring • Communicating • Inferring • Sensory learning • Inquisitive skills • Curiosity • Comparison • Grouping • Constructing the knowledge

The curriculum conceived of creative thinking as 'high-level thinking skills' that require fundamental thinking processes for good communication and knowledge acquisition. Moreover, scientific skills were a further focus including observing, predicting, comparing, classifying, measuring, communicating, inferring, and constructing knowledge to help children to awaken their senses and become curious about the events around them. The process of science was seen to support the ability to think in logical steps and allow children to guess what could happen in the activities (Crafts, 2001). This may relate to the 'What if' technique, which is linked with little-c creativity. The latter part of scientific learning allows children to organise their ideas based on similarities, differences or particular relationships before they express and convey their creative ideas and attitudes to others. The science content can also address basic knowledge such as life and living things, the environment, matter, biochemistry, forces, motion, astronomy, space, the Earth, energy, science and technology. This is seen to develop life skills and knowledge that might expand their creativity.

3.5.3 Comparison of the two cases

Comparing the two cases, both schools have similar class size (30-35 children/room) and all teachers have qualified as preschool teachers. The selected schools applied various pedagogies in their own classrooms such as Montessori, the project-based approach, literature-based approaches, thinking-process skills and scientific thinking skills. These pedagogies, according to the curriculum are open-ended approaches that aim to cultivate children's creativity. Classroom activities are divided into six, sections including Circle Time, Music and Movement, Creative Activities, Free Play, Education Games, and Outdoor Activities. The desire is to help teachers to focus on the child's development and their domains of learning. However, the difference between the two cases are vividly apparent in the teaching strategies. School A adopted literature-based learning, while school B applied scientific thinking skills and thinking process skills into their curriculum. It can be assumed that each school might emphasise children's creativity in different domains such as language and science. Nevertheless, it was hoped that the analysis and synthesis of a multiple case study could demonstrate the implementation of the understandings, beliefs, and viewpoints of teachers, the curriculum and policy of the school in action, and the actual events that occurred in the specific case study. In this way, each case could illustrate the comparison of and contrast between the contexts in which children's creativity in each case develops and the findings could be used as a model to develop creativity in education in the other parts of the country.

3.6 Pilot study

Before the fieldwork, the pilot study was designed to address the key elements that may affect studying children's creative development in preschool settings in Thailand, such as location, types of school, and the attempts being made to develop children's creativity. The aim of the pilot study for this research was to gain assurances that the research question, research plans, methods and ideas would work in the practice (Jariath et al., 2000; Kim, 2010). The advantages of a pilot study are that it helps the researcher to detect the possible weaknesses in the measurement procedure (Welman and Kruger, 1999), help them to have awareness of their roles, and allow for preparation for future challenges in as many elements of the research tools and process as possible (Kim, 2010).

The pilot study took place in five sessions in two weeks in a school in Bangkok, in December 2013. The school was under the supervision of the Office of the Basic Education Commission, at the Ministry of Education of Thailand. It provided education at preschool level (children aged 3-6) and primary school level (students aged 6-12). There were five preschool classrooms: class no. 1 for children aged 3, classes no. 2 and no. 3 for children 4-5, and classes no. 4 and no. 5 for children aged 5-6. Classroom no.3 was selected because of the experience and the willingness of the teacher to participate in this research. The class size was 30 children and the ethnicity of the participants was Thai. The classroom was co-educational and the children had similar ages, ethnicity, and socioeconomic status.

The observations, interviews with teachers, document analysis, and collection of children's artefacts has been used to explore the concept of creativity in the preschool settings. The findings show participants overall understanding and daily practice of creativity which reinforced the view of Four Ps creativity originally outlined by Rhodes (1961). However, the limitations showed other small but significant issues such as issues relating to the adequacy of the data, time modes, observation schedule, and accessing participants, including both teachers and children in the school setting. The implications of the pilot work helped the researcher to consider questions about time management, the potential sufficiency of data (including the number of sessions during the observation element and an amendment of the observation schedule) and the interview schedule in the main research. Finally, some of the results of the pilot work were used in the main research because it was conducted with efficient tools and was considered to contain valuable information for the final analysis. These issues were discussed in the following sections (sections 3.6.1-3.6.3).

3.6.1 Time modes

From the pilot study, the length of time spent in research fieldwork is considered as an important component for in-depth comprehension and expounding on social phenomena. The research reconsidered the most suitable time to collect data, especially in the observation, based upon Troman et al. (2007), who suggested three time modes with regards to the pragmatic requirement of the length of time depending upon the researcher's actual situation. Firstly, a compressed time mode (Walford, 1991), which 'involves a short period of intense

research in which researchers inhabit a research site almost permanently for anything from a few days to a month' (Jeffery and Troman, 2006, p.26). Secondly, a selective intermittent time mode was chosen, where a longer time is spent on fieldwork 'from three months to two years but with a very flexible approach to the frequency of site visits' (Jeffery and Troman, 2006, p.28). Thirdly, the recurrent time mode was used, which 'may aim to gain a picture by sampling the same temporal phases such as beginnings and ends of terms and school celebratory periods' (Jeffery and Troman, 2006, p.31). Concerning this, in the practical situation of this study, the researcher adopted a compressed time mode for case study research by visiting the preschool setting for six weeks in each case: twelve weeks in total. The appropriate length of time and flexible-combination of different research methods including participant-observation, in-depth semi-structured or unstructured interviews, and documentation and artefacts, facilitates the research's efforts to collect data for the 'thick description' (Yin, 2003) required for interpretation.

According to the pilot study, one of the challenges of observation is that it can be seen as a very time-consuming approach. It is suggested by Newman, Roberts and Schwartzste (2012) that the researcher should examine the curriculum, course outline, or any future plans to help plan the observation sessions in an educational context. Thus, in this project, before accessing the school for classroom observation, the researcher has indeed examined the relevant documents about school activities. In the setting, there were various activities in a day. Children attended the school from 8.00 am until 3.00 pm, Monday to Friday. The class plan is shown in the figure below.

Figure 2: The daily routine in preschool

The classroom timetable above (Figure 2) shows the four main learning activities, which are circle time, creative activities, free play activities and outdoor activities. Many activities, such as circle time, creative activity and free play, aim to develop learner's creativity while playing in the playground and are focused more on developing children's physical health. The range of time for collecting data is planned by the targeted activities including the circle time (the main activity), art, and play activity (as the following activity). This is based on the pilot study that showed these activities as the main routines where teachers play a big role in teaching and all children participated in everyday routines (Appendix G). Thus, the observation included circle time, creative activity and free play and excluded the outdoor play.

3.6.2 Quality and adequacy of data

In order to understand social phenomena from the participants' perspectives in in each case, one must consider the adequacy of the data in this research including the amount of the data, such as the number of observations and interviews. The quality and adequacy of data is drawn from the data scheme by Erickson (1986), who demonstrated five major types of evidentiary adequacy including 1) adequate variety in kind of evidence, 2) interpretive status of evidence, 3) adequate amounts of evidence, 4) adequate disconfirming evidence, and 5) adequate discrepant case analysis. This is argued by Morrow (2005) that the numbers alone 'have little to do with the quality or adequacy of qualitative data' (p.225). These, then, are issues that are used to ensure that the methodology captures accurate, adequate data in this research. The range of data is displayed in Figure 3 below:

Figure 3: The overall method used in gathering data from the setting

According to the diagram, this study considered a range of possible methods such as participant observation, field notes, interview, artefacts, and school documents in order to achieve an adequate variety of kinds of evidence. Morrow (2005) emphasised that 'the more variety in data source one is able to obtain, the greater will be the richness, breadth, and depth of the data gathered' (p.256). Another reason to use multiple research tools involves the interpretive status of the research data. It is important to confirm that the observations and interviews in the fieldwork contain sufficient time and intensity in to warrant that the interpretations are efficiently made. The truth-value of data is the most crucial and is associated with generating sufficient trust and a good enough relationship with the participants in particular activities in the school. Without adequate data collection through the context, culture, and action-reaction of participants in school, the final interpretation of evidence may be in doubt.

3.6.3 Using the pilot study in the main research

In this study, some of the observation data and interview data from teachers in the pilot study were used as a part of the overall final analysis and reporting. It is asserted by Peat et al. (2002) that 'an essential feature of a pilot study is that the data are not used to test a hypothesis or included with data from the actual study when the results are reported' (p.57). This can be a particular concern if there were weaknesses in the research instruments and amendments had to be made in the pilot study; the data could be incomplete or incorrect. However, it is argued by the Department of Sociology, at the University of Surrey (2001) that separating both studies' qualitative approaches is not necessary since the pilot study may give the qualitative research a clear definition for the focus of the study which it could not change or improve in the later study. Moreover, it may not be plausible to exclude the data from the pilot study because results in the main study itself may be small in scale and may benefit from the additional perspectives derived from the data in the pilot (ibid.). In this case, one interview and some observation sessions in School A1 were used in the data analysis. This is because the interview data from the class teacher (in December 2013) showed significant information for the first interview: for example, what is her conception of creativity and how the school and teachers develop creativity in the education after the curriculum reform. However, it is important to note that the fieldwork in the School A1 was conducted again in 2015. The class

teacher was interviewed about their practice and policy related to their practices at a later time. Therefore, some of data collected in the pilot study can be considered suitable to be used along with the data collected in the main fieldwork in this research.

3.7 Tools of data collection

To complete the comparative case studies, the researcher needs to observe, listen, read, and write in order to gather together the behavioural patterns of people living within the defined settings. Tools of data collection, therefore, include 1) participant observation, 2) semi-structured interviews, 3) secondary analysis of preschool curricula, lesson plans, and policy documents, 4) children's artefacts and work, and 5) photographs of classroom activities. The tools offer different aspects and a more complete picture from participants and collect the actual phenomena, which are outlined below in Figure 4.

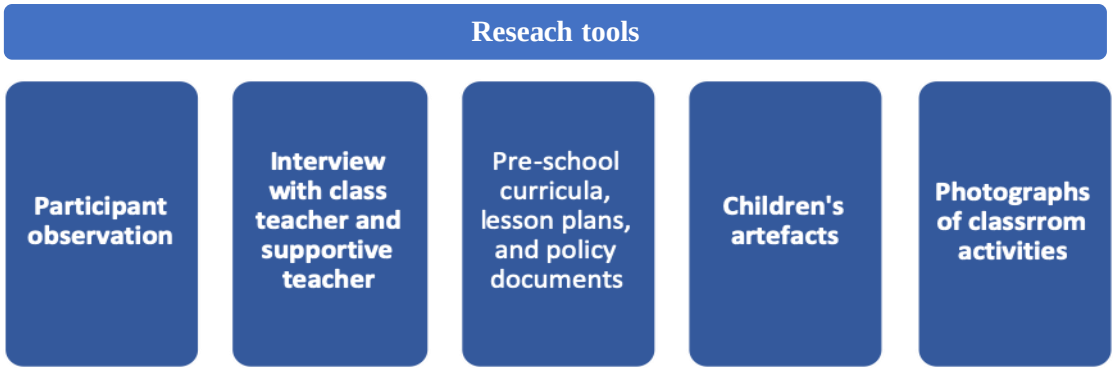


Figure 4: Research tools

3.7.1 Observation

This study used participant observation to gather information about children's and teachers' behaviour and learning responses during their learning period. Observation is a method that has the virtue of being direct and flexible, and thus it allows the researcher to 'get close enough to the people and situation being studied to personally understand in depth the details of what goes on' (Patton, 2002, p.28). This technique can be used to validate the research data (Handcock, Ockleford and Windridge, 2007). For example, the interview technique can gain

direct answers from participants, but it does not guarantee how participants actually behave in reality in the field.

a) Developing an observation schedule

The technique for collecting data through observation was trialled in the pilot study. The pilot study was undertaken to test the observation schedule based upon the Analysing Children's Creative Thinking (ACCT) approach as the framework for observing and analysing children's creative thinking. This consists of three themes: 'Exploration, Involvement and Enjoyment, and Persisting' (Fumoto, Robson, Greenfield, and Hargreaves, 2012). The ACCT Framework indicates the social and intellectual dimensions at play and aims to capture the diversity of 'actions, process, and behaviour dispositions' to assess creativity (ibid.). The ACCT Framework has been tested and affirmed as an effective research tool. Also, this observation form was approved by Liverpool John Moores University's Research Ethics Committee (REC) in October 2014. However, after the exploratory pilot work, the researcher found that the ACCT is difficult to use as the framework for observation notes in a real setting. The weakness of the ACCT is it sets fixed themes in observation which do not allow the researcher to record unexpected events that happened during the classroom activities. It was also too narrow in terms of its tools to capture rich information in the real settings. Therefore, the observation schedule was changed to an open-ended observation form and the period of observation was also rearranged to ensure that it captured what happened during the classroom activities (see in Appendix I). Open-ended observation, using blank paper with the main framework, offered the researcher the best opportunity to gather data in observation because it allowed the researcher to gather as much information as possible whilst in the classroom. The open-ended observation schedule was created to be flexible and was based on the research questions and research aims. It focused on teachers' and pupils' behaviour, the creative product in the classroom, the pedagogical approaches and activities, the teacher's role, and the physical environment. This is outlined in more detail in the list below:

a. Observe what creative product is and what the perception, the uses, and the values of creativity are in the preschool settings in Thailand.

b. Observe what/how the pedagogical approaches and activities were used to promote creativity/creative learning.

c. Observe the teacher's role in promoting creativity.

d. Observe how the physical environment influences children's creativity.

In the real field, the researcher selected the particular periods of time using time mode schemes **(**see in 3.6.1 Time modes as part of Pilot study). The researcher accessed everyday activities and listened and carefully watched the behaviours, actions, and conversations of participants. The time scale of the observation was 12 weeks in two schools: six weeks in each. The observation data includes 45 classroom activities in each school – with an overall total 90 observational sessions across the two schools. The observation schedule was divided into three main types of activities, including circle time activity (15 sessions), creative activities (15 sessions), and free play activities (15 sessions). Timing in observations was about 30-60 minutes depending upon the length of each activity in the class. This process enabled a thick description of the social interaction, including verbal and nonverbal behaviour. It helped the researcher to gather important data to investigate the meaning and interpretations that the participation involved. This offers opportunities to observe all aspects of potentially relevant phenomena, which helps the researcher to find out what actually occurs in a setting rather than only what is reported by the participants. Therefore, utilising observation as one of research tools can explore the complexity and meaning of creativity based on Four Ps creativity in this case as well as increasing triangulation, which ensures the various constructions of the reality that occur within the contexts of study from different points of view are captured.

b) Writing observation descriptions

In order to collect data through observation, the researcher used written descriptions, a digital voice recorder and photographs of the classroom activities and artefacts. Throughout the written descriptions the researcher used the basic principles of taking notes: 1) noting what has been observed by writing down the notes clearly and quickly, 2) use of digital recorder, 3) writing up full field notes after the day of observation and encoding the details of the observation group, location, and date, and 4) making copies of the notes. The researcher had

permission from the participants to use a digital voice recorder and took photographs as supplementary tools during observation. The voice recorder helped the researcher not to miss out on observations while writing as well as offering the researcher the chance to re-check and reviewed the accuracy of the observation data when needed. The written descriptions were coded by number and linked with the number of a digital record file in order to match the data for data analysis and presentation. However, the researcher decided not to use a VDO recorder as it interfered with children's interests and behaviour during the observation. The photographs were captured and used to present the classroom context. All pictures used in this study were permitted by the relevant participants. After transcribing and coding all the data, the original digital records and the hard-copies of the data were deleted and destroyed due to confidentiality issues. (More details about the photographs in this study are explained in section 3.7.4 on *Artefacts and visual materials.*)

c) The role of researcher in classroom observation

When engaging in classroom observation and interviews with teachers, one must consider the most culturally appropriate way to approach the participants: in this case, the classroom teacher and children. The process of approaching the participants required continuous self-reflection on the role of the researcher as the process allows the qualitative researcher to realise how they are positioned in relation to the participants, which can help to shape the research process (Hill, 2006). In this study, the researcher discussed the process with the classroom teacher, and it was agreed that the researcher would attend classroom activities. The teacher introduced the researcher as a fellow teacher who wanted to join in and observe the children's class. The researcher then took on the role as a way of getting closer to the children during their learning activities. The children called out to the researcher/teacher by name. However, the researcher did not make comments while doing observation but merely attended classroom activities and acted as an observer without working as a teacher in the learning activities.

d) Accessing the participants

Before accessing the school, the researcher contacted the teachers to gain their permission for the research. After being offered access to the school, the researcher took the opportunity to introduce herself to the teachers. As the position or role of the researcher must be clarified

with the participants (Hill, 2006), the researcher carefully clarified issues relating to the research aims and methodology and what would happen during the research, and asked for permission from the teachers to undertake the research. The researcher explained the research methodology, including the participant observation element, the interviews with teachers, the fact that school documents would be examined, and that children's artefacts would be a major part of the study. This process seemed to go well with teachers since the school and teacher opened up opportunities for educational study. The next consideration in the study was how to position oneself appropriately in the setting.

e) Getting to know children during classroom observation

Getting to know children in a research setting is also significant, since, according to Marshall and Rossman (2006), the achievement of good qualitative research depends initially upon the interpersonal skills of the researcher. Good communication and social skills are important because they are key features for participant observation. This highlighted the importance of getting to know the children and the relationship between children and researcher. The researcher found that there were no difficulties in getting to know children in the setting and also found the relevance of their previous experience as a teacher. The section below describes the detail of accessing the children and the relationship between the researcher and the children.

In the first steps, the researcher made herself known to children by participating in the free play activities in the morning. The researcher got to know the children's names and what they were doing. At first, not all the children talked to the researcher. Children started introducing themselves and explained that they were drawing pictures. Then, the researcher asked them about what they do in school and what their favourite activities were there. The children then started talking more about their favourite activities such as reading books, drawing, playing with friends in the playground, and planting lettuce at school as well as school excursions. This boosted the conversation in the group. After that, the other children who just came to school or who walked past the group came to join our conversation. As we can see, it is important to get to know children with simple questions and build up the conversation

following their interests and their school routines since this helps the researcher to get closer to and to be trusted by the children.

As the second step, the classroom teacher introduced the researcher as a teacher to the children. The teacher asked the children if there were any questions they wished to ask about me. The first child asked what I was doing there in their classroom. The researcher explained to them that, 'She has come to observe what children do in this school'. The second child asked, 'How do you get to the school?' The researcher said, 'I came by car'. The third child asked, 'Where do you study'; I said 'I am studying in a university'. The last question was where my home was, to which I responded, 'I live close to Ratchadamnern Road, close to the Grand Palace'. Children then started saying that they knew the place and some of them had been to that place before. After that, the class was led by the teacher and the researcher moved on to observe the classroom from the back of the room. This showed some keys of getting to know the participants are to let them know about the researcher by being open to questions. This revealed the importance of the researcher spending time with the participants, especially with young children, for at least a week to get to know them and to develop a relationship with them.

3.7.2 Interviews with teachers

In the fieldwork of this study, interviews were used to gain in-depth information and perspectives on creativity in two preschool settings. Gray (2009) indicated the strength of the interview approach is that it is the most powerful of techniques to help people to be clear about issues that have been implicit and make explicit their information, perceptions, and understanding. The process of interviews also offers the researcher the opportunity to ask questions and clarify participants' backgrounds, knowledge and perspectives (Robson, 2011). The interview data provided direct answers to what people mean and explained the relationship between people, phenomena, and environment (Shagrir, 2017). The interviews in this study, therefore, were used to help the researcher to gather information from participants such as knowledge, feelings, or attitudes toward creativity and to reveal the complexity of issues that cannot be found through observation.

In this study, the interview schedule was piloted before the field work. The researcher planned the interview schedule to interview classroom teachers in each school. It is important that the interview schedule is tested and developed in the pilot study. The implications of the interview process in the pilot study helped the researcher to revise the structure of the schedule. The key features of the interview process are focused on quality, length, and depth and variety of interview questions (IQs). The questions were set based upon the Four Ps creativity model, relating to the concepts of creativity, the pedagogy, teaching, the approaches and activities used as the process to promote creativity, the characteristics of creative people, the uses of materials and environments for creative teaching and learning, and the challenge that the teachers face in developing children's creativity in each setting (see in the list below).

The goals of the interviews for this study were

a. To examine the educators' understanding of and perspectives on concepts of creativity in two preschool settings in Thailand (Bangkok)

b. To examine the educators' understanding of pedagogical approaches and creative activities that preschool teachers report on and present in the classroom, and how these activities support children's creative learning and creativity

c. To examine the educators' understanding and perspectives of the creative person in the classroom. What/how children are expected to behave as creative persons?

d. To examine the educators' understanding and perspectives of materials and the learning environment present in the classroom, and how these materials and the learning environment support children's creative learning and creativity

e. To examine the challenges that the preschool teachers encounter when including creative teaching and creative learning in their classroom

The types of interview questions (IQs) were categorised into three main types including descriptive questions, structural questions, and contrast questions (Spradley, 1979). A descriptive question is open-ended and asked to gain an ongoing sample of an interviewee's language. For example, 'What do you mean by creativity?', 'Could you tell me what do you do to promote creativity in the classroom?', 'Could you describe creative activity?', or 'What do creative children do in the classroom?'. The descriptive questions were appropriately open-ended and flexible enough to gain information from the participants. Structural questions offer

the interviewer an opportunity to discover information about domains such as basic units of interviewer knowledge and attitude. These types of question enable the researcher to repeat questions in order to get rich and detailed information. For example: 'What equipment did you use in the classroom setting?', or 'Could you think about any other kind of activities you would like to do?'. Structural questions can capture a clear understanding of other attitudes apart from fixed activities and learning in the classroom. The above relates to the work of Kvale (1996), who proposed criteria for interviewing, including using short and clear questions to glean correspondingly long information. Finally, contrast questions allow the researcher to find out what the interviewee means by various terms used in different contexts. The researcher can ask about the difference between related issues to ensure they have grasped the real meanings of the particular situation and issues. The contrast question is used to interpret, verify, and clarify answers during interviews in order to expand them into richly detailed information. (See the full interview schedule in Appendix J: Interview with teachers' schedule.)

In the fieldwork, the classroom teacher was invited to take part in an interview about her/his role, goals and practices as well as their perspectives and attitudes towards children's creativity in the preschool classroom. Before the interview started, the researcher clarified to the interviewee that they would be taking part in a semi-structured interview. The interview tools included interview questions and a digital voice recorder. The interview data was recorded and transcribed then each participant was coded with a number. In School A, the class teacher was coded as teacher A1 and the support teacher was coded as teacher A2. In School B, the class teacher was coded as teacher B1 and supportive teacher was coded as teacher B2. The raw transcriptions were translated from Thai into English. Eventually, the relevant participants all gave their permission for the transcriptions in this study. After transcribing the data, the original digital records and the hard copies of the data were deleted and destroyed due to confidentiality issues.

3.7.3 School documents

The importance of document analysis lies in its role in data triangulation, the high value of documents, and its usefulness in case study research. Since the document is a permanent form

of data and the process is unobtrusive, analysis of them allows the researcher to re-check the materials and this affords reliability and replicability in the study. It allows the researcher to observe and collect data without dealing with participants. According to Neuendorf (2002), such an approach is 'the systematic, objective, quantitative analysis of message characteristics' (p.1). Documents are stable and non-reactive sources. Analysis of them provides a broad coverage of a long time span covering many events and also gives the exactness around such issues as names, philosophies, aims, references and details of school curriculum, policy and plans in the research process (Yin, 1994). It can be useful for gleaning information, is accessible, and economical in terms of time and helps reach insights based on evidence from the fieldwork. In this study, analysing school documents has helped answer the research questions, such as 'What types of pedagogical approaches and creative activities promote creativity/creative learning?' and 'How do school curricula and policy impact on the creative teaching and creative learning in the classroom?'. Analysing documents has provided evidence of the relationship between the text and the context, and the context might include the aims of the document as well as the context of the community, society, and culture. This provides a triangulation that corroborates the information from a different source, such as a classroom observation interview with class teachers and children's artefacts.

The process of document analysis requires data selection rather than data collection. In this study, the selection of school documents has been piloted to assess how comprehensive (covering the topic completely) and selective (covering some aspects of the topic) it might be. The researcher considered the advantages and limitations inherent in document selection to obtain sufficient details and to minimise biased selectivity (Yin, 1994). The researcher determined which documents contained significant details on aspects of creativity, creative learning and creative teaching as well as the context of the school and classroom. Bryman (2008) has indicated a checklist for evaluating documents, and he highlighted that the researcher has to ensure certain traits are present in the documents: 1) the aims of the document, 2) information on who created the document and whether they have authority to produce the document? 3) how genuine the document is, and 4) clear meaning of document. Therefore, the selection of the school documents covers a very wide range of different kinds of sources such as the school curriculum, course outlines, timetables, and lesson plans (see in Appendix H). The variety of documents helped the researcher investigate the importance of

role, goals and practice of creativity and to discover the policy level interventions in each case for curriculum, pedagogical practices and learning resources for children's creativity and creative teaching. In addition, in the preschool context, the available documents are likely to be associated with corporate policies and procedures and with the programme of study. The school curriculum, course outline, timetable, and lesson plans were copied and translate from Thai to English. Permission was granted by the schools and teachers to copy each document. After analysing the data, the original copies were deleted and destroyed due to confidentiality issues.

Table 3: The selection of the school documents in this study

Document selected	**Aims of the document**	**Document analysed**	**Clear meaning of document**
School curriculum	Provide school ethos and philosophy, pedagogical approaches, creative activities, classroom environment and teacher's roles	Concept of creativity, pedagogy approaches and creative activities that promote creativity/creative learning/creative environment	Genuine document issued by school
Course outline	Long-term and short-term plan for developing creativity	Pedagogy approaches, creative activities and teacher's roles that promote creativity/creative learning in full term time What/where is creative learning and teaching in the classroom?	Genuine document issued by school
Timetable	What/where/how is creative learning and teaching worked into weekly routines?	Pedagogical approaches, creative activities and teacher's roles that promote creativity/creative learning in weekly routines What/where is creative learning and teaching in weekly routines?	Genuine document issued by school and class teachers
Lesson plans	The aims and plan of each lessons can filter what/where creative learning and teaching are and how these influence children's creativity/ creative approach in real settings	Pedagogical approaches, creative activities and teacher's roles that promote creativity/creative learning in daily routines What/where/how is creative learning and teaching worked into daily routines?	Genuine document issued by school and class teachers

Afterwards, document analysis included 'skimming (superficial examination), reading (thorough examination), and interpretation' (Bowen, 2009, p.32). The content analysis process involved a careful, focused re-reading and reviewing of the data. The researcher had

to take a close look at the selected documents and focused on coding and organising the information into the categories related to the research questions. This was based upon the thematic analysis which is used for pattern recognition within the data, with emerging themes fitted into the categories for analysis: Four Ps creativity.

3.7.4 Artefacts and visual materials: Children's drawings/ artwork/writing/group work

The term artefacts and visual materials have been interpreted in this study as children's drawings, artwork, writing, group work projects, daily routines, and photographs of those evidences. Artefacts refers to the objects or pieces of work children made and evidence of the classroom observation such as teacher's writing on the whiteboard, ornamental or decorative children's work et cetera. According to Hawkins (2002), children's artefacts such as artworks, drawings, writing paper, worksheets, and project work were collected where possible since children's artefacts are essential evidence, which show children's cognitive, emotional and linguistic development. Cognitively, children's drawings show the actions whereby children investigate and reflect their world through sense and intellectual thinking. Emotionally, children instinctively express their affection and emotions through their artefacts. Linguistically, children have the opportunities to convey their ideas and also develop their writing or narrative skills. As can be seen, children's artefacts can be effective tools for supporting and answering the research question (ibid.). This will be the evidence that shows the progression and development of the children's creativity over time.

The artefacts were selected from the classroom observation to answer research questions such as 'What is creative product in the preschool classroom and how does it impact on creative learning in the classroom?' The process of creating artefacts can display the potential barriers that inhibit creativity or the challenges that the preschool teachers encounter when including creative teaching and creative learning in their classrooms (see Figure 5).

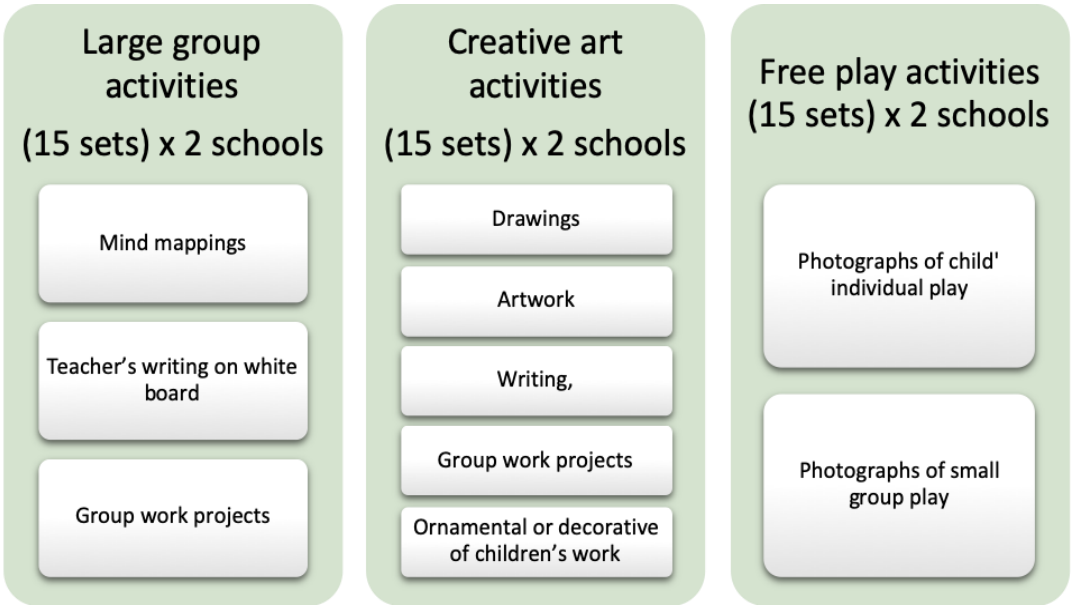


Figure 5: The selection of the artefacts and visual materials in this study

There was a total number of 90 sets of artefacts and photographs in the two classrooms. In each classroom, 45 sets of artefacts and photographs were collected from circle time (15 sets), art activities (15 sets), and free play (15 sets). Fifteen sets were drawn from the classroom observation. The researcher collected five artefacts in one observation. In circle time, the researcher gathered five photographs of artefacts including group work, mind mappings, teacher's writing on the whiteboard, and group work projects from 15 activities (15 x 5 = 75 photographs). In the creative art activities, the researcher gathered five photographs of artefacts. The artefacts were collected from five or six children in group observation and included drawing, painting, play dough et cetera (15 x 5 = 75 photographs). In free play activities, the researcher gathered five photographs of artefacts (45 pieces) from individual/group observations (see sample of photographs of classroom activities and children artefacts in Appendix K and L). The artefacts from free play and art activities were somewhat varied since a child/children may play individually or play in a group together. Eventually, the researcher had informal unstructured discussions with the children, when appropriate during the class time, as part of the observations section. The researcher recorded what children said in the form of field notes to determine an accurate interpretation of children's artefacts.

3.8 Data analysis

Theoretically, the qualitative analysis approach is usually associated with summarising the frequencies of variables or differences between them: people, behaviour, and contexts (Handcock, Ockleford and Windridge, 2007). The procedure of analysis organises the large amount of information and compares it with others to explore how things appear in the data. It can help the researcher to articulate what the data means and to understand it before creating 'the big picture' of the major findings (Stuckey, 2015). Some authors, however, argue that the main criticism about qualitative research is the lack of generalisability in the results (Nowell, Norris, and Deborah, 2017). Hence, this study used thematic analysis to create a structured and transparent form of analysis in order to increase the generalisability of the findings.

Thematic analysis is the technique for 'identifying, analysis, and reporting patterns (themes) within data. It minimally organizes and describes your data set in (rich) detail' (Braun and Clarke, 2006, p.6). This analysis method provides richly descriptive information and insightful understandings of complex phenomena that appear across a range of theoretical and epistemological methods and expand on the existing theory or knowledge (ibid.). The procedure of the analysis is flexible since it allows the researcher to collect and analyse data either during the collection process or afterwards. It helps the researcher to use the recording of the notes, thoughts, and impressions, to explore the pre-defined concepts of creativity and investigate unexpected findings with a clear and tacit theme.

Using thematic analysis technique, it is comparatively easy to focus on specific answers and leave out the surplus information. The researcher can investigate predefined codes, such as the concept of creativity, and the main theme drawn from the research questions. Then, the sub-theme in the data analysis can be drawn out following the inductive thematic approach. This process invites the researcher to generate unexpected themes such as the challenges of developing creativity in preschool classrooms and the complexity of defining creativity in practices. We must bear in mind that thematic analysis has been criticised for its lack of depth, for fragmenting the phenomena being studied, for being subjective and for lacking transparency in relation to the development of themes, which can cause difficulties when evaluating the accuracy of the findings. As a result, the process of thematic analysis, as

recommended by Braun and Clarke (2006), comprises six levels of thematic stages which help the researcher to collect and analyse data efficiently: 1) familiarising yourself with your data, 2) generating initial codes, 3) searching for themes, 4) reviewing themes, 5) defining and naming, and 6) producing the report.

The first stage of data analysis is 'familiarising yourself with your data', which involves spending time with the raw data. It begins with the process of transcription of verbal data, such as observation descriptions and interviews. After that, the researcher reads and re-reads the information to become familiar with the whole of the data and notes with brief summaries key words to match with the key ideas in the pre-defined themes (see in Table 4: The process of pre-defined themes). This process is associated with 'actively reading', which means the researcher thinks about what is going on in the data (Braun and Clarke, 2006). It helps the researcher to look at the details of the raw materials and become familiar with the information to be ready to pick up the data in the categories process. In addition, the advantage of this stage of the study is that the researcher had collected all the data by themselves so they could start the data analysis with some prior knowledge of the data and some insights or thoughts.

Table 4: The process of pre-defined themes

Stage 1: 'Familiarising yourself with your data'								
Observation	Case A Observation 1	Case B Observation 1	Case A Observation 2	Case B Observation 2	Case A Observation 3	Case B Observation 3	Case A Observation …45	Case B Observation …45
Interview	Teacher A1		Teacher A2		Teacher B1		Teacher B2	
School documents	Case A				Case B			
Artefacts and photographs	Case A	Case B	Case A	Case B	Case A	Case B	Case A	Case B

In the second step, coding is used as the process of organising and sorting qualitative data. Stuckey (2015) emphasised that coding is the technical or preparatory work for the higher level thinking of the study. Before coding, the author suggested that the researcher needed to think about the research questions and the big picture that they may refer to as 'a storyline' such as 'What are the data telling me that will help me to understand more about research

question?' (Stuckey, 2015, p.2). Developing the storyline helps the researcher to decide and select which concepts and themes to concentrate on in the analysis as well as how the data could be organised and coded.

After developing a storyline, coding was carried out manually. The researcher used highlighters, coloured pens, and post-it notes to code the texts that were analysed. The researcher highlighted the key words and a short phase that descriptively captured the significance of elements with a particular label (a code). The code was pre-defined by the Four Ps model of creativity and 'Research Questions' to ensure the significant aspects of the data were not missed. Codes refer to substantive things, such as specific behaviour or events; values or beliefs in the statements; emotions such as proudness, frustration, worry, love, and care; and some methodological issues such as the interviewee finding something difficult to explain or feeling uncomfortable. (See Table 5)

Table 5: A sample of data coding

Stage 2: 'Generating initial codes'		
Data extract	**Code for**	**Theme**
Teacher B1 'Creativity is something that we heard so far but it is difficult to define and understand…' **Teacher A2** 'In fact, we know by sense that creativity is about doing something new and different. And, it's about getting an inspiration to create something or to move you forward…but I think creativity is broad… somehow too wide to [be] defined…'	The complexity of the meaning and values of creativity	Theme 1: Conception and perception of creativity
Teacher A2 'We wish to put children's creativity but there is **not enough time**. There are **many activities** in the school, as you see on weekly schedule. Sometime, the literacy is still significant aims. This depends upon **parent's needs and attitudes**. Our school does not focus only on literacy, so some parent will take the kids to the extra classes anyway.' **Teacher B1** 'There is **little time** for children to play. In our school, children have so **many different activities** outside the classroom such as art, going to the library, swimming, computers, music and movement activities. When we are back to the class, we need to do circle time and free-play activities, which is linked to the main theme in each week. So there is only **little time for kids to play freely.**'	Time issues	Theme 4: The potential barriers that inhibit creativity/or the challenges that the preschool teachers encounter when including creative teaching and creative learning in their classroom

As can be seen, generating initial code means identifying a feature of the data which shows key points for analysis and refers to the fundamental segment or elements of the raw data that

can be evaluated in a meaningful way regarding the contexts and phenomena (Braun and Clarke, 2006). The coding process helps the researcher to organise the data into meaningful categories. Nevertheless, the coded data is not the same as the themes, which are usually wider.

The third stage is 'Searching for the themes'. After coding all the data, the researcher is required to extract the themes from the codes. In this process, the researcher went through all the codes and grouped them together to represent common and significant themes regarding the research questions. In order to simplify this method, the researcher wrote the code headings on small pieces of sticky notes; this helps the researcher to see the overview of codes and allows them to rearrange or cluster the codes into the potential themes. Afterwards, creating the theme derives from the data as an inductive approach and from the researcher's understanding of the phenomena in the study. The researcher used another colour sticky note to create 'Basic theme' and label the cluster codes with them. For example, 'creativity is sometime untouchable', 'but I think creativity is broad… somehow too wide to [be] defined'. 'Creativity is something that we heard so far but it is difficult to define and understand' appeared in the interview transcripts with teachers. These can be clustered as 'the complexity of the meaning and values of creativity'. This is created according to Research question (RQ4): 'What are the potential barriers that inhibit creativity or the challenges that the preschool teachers encounter when including creative teaching and creative learning in their classroom?'

Then, the researcher reviews the codes and the themes and searches for possible themes. This process should ensure that the themes work in relation to the coded text and review data in order to search for additional emergent themes. After the essential considerations, the researcher defined the names of the themes in order to reflect the data correctly. The themes in this study include 1) Conception and perception of creativity; 2) Creativity and pedagogical approach; 3) Creativity, school environment; and 4) The potential barriers that inhibit the development of creativity in Thai preschools (see Table 6).

Table 6: The process of searching for the themes

Stage 3: 'Searching for the themes'

Theme 1 **Conception and perception of creativity** RQ 1: How do the preschool teachers, in two preschool settings in Thailand (Bangkok), understand the concept of creativity, and how does their perception support their use of creative practices in the classroom?	Theme 2 **Creativity and pedagogical approach** RQ2: What types of pedagogical approaches and creative activities promote creativity/creative learning? What did preschool teachers report and present in the classroom, and how are these activities supporting children's creative learning and creativity?	Theme 3 **Creativity, school environment** RQ3: • How does the Thai preschool environment influence children's creativity in both schools? How do school curricula and policy impact on the creative teaching and creative learning in the classroom?	Theme 4 **The potential barriers that inhibit creativity in Thai preschools** RQ4: What are the potential barriers that inhibit creativity or the challenges that the preschool teachers encounter when including creative teaching and creative learning in their classroom? And how are they similar or different in different settings?

The final stage was writing up the findings. It was noted that what is required is a 'concise, coherent, logical, non-repetitive, and interesting account of the story the data tell' (Braun and Clarke, 2006, p.23). The researcher selected vivid and clear extract examples relating to the research questions, objectives, and literature reviews to conduct interpretation and writing up the findings.

3.9 Transcription and translation

In this study, the data was collected in the Thai language and, later on, translated into English. Gathering qualitative data in a different language requires the researcher to seek suitable processes of transcription and translation. The main goal of this section, therefore, was to discuss how the researcher managed the speech of participants, the process of translation, and the methods to avoid meaning loss and bias.

The transcription of the observation data was done straight after the sessions. The data included verbal and non-verbal interactions as they carried communicative meaning from audio-transcription and paper notes. The transcripts included the speech of teachers and children, the length of the time taken for each activity, facial and body expressions/gestures, and the resources used in the context. For example, in the observation of homeroom time in School B, 'the boy was standing still (body expression) with a smile (facial gesture) for some time (length of the time used). Then, the teacher said, "No need to be shy, be brave" (the

speech of the participant)'. However, it is essential to consider non-verbal interpretation in observation as it was not easy to process. Non-verbal content was carefully transcribed for use with verbal transcription in order to remain focused on the research framework.

Meanwhile, interview transcription consisted of many statements from the audio recording. Transcribing data was done carefully, word for word (verbatim) (Crabtree & Miller 1999), including the speech, tone of voice, timing and pauses in the dialogue. Transcribing interviews clearly showed the verbal content revealed the perceptions of the interviewees, yet the non-verbal content – mostly related to facial expressions such as smiles or frowns – were noted in brackets: for example, '(smile)'. Any silence in the dialogue was represented with '(silent)' to represent 'the pause in the dialog' in the raw materials.

At this point, transcribing and translating are part of the first stage of the data analysis, as part of familiarising oneself with the data. The transcription has been translated from the Thai language into English. It was argued by Temple and Young (2004) that the researcher who is able to translate data themselves is automatically capable of decoding the statements across the languages in the data analysis, and thus they have opportunities to pay close attention to cross-cultural meanings, interpretations and problems within the research process. As the researcher is a native Thai speaker and had a professional education in early childhood education in both Thai and English, the researcher took the role of translator in both the data collection and the translation processes.

It is thought that translating Thai text into English text can include three types of error: semantic errors, syntactic errors, and cultural errors (Pojprasat, 2007). Semantic errors may be caused by mistranslation of words, which can be a single word, collocation, or idiom. Syntactic errors may be caused by mistranslation of the sentence structure or grammatical structure. Cultural error may be caused by misinterpretation of cultural differences. The researcher, therefore, considered the selection of the words, the ungrammatical speech, and meaning loss or bias throughout the translation.

In order to minimise errors, the researcher considered the type of vocabulary, the nature of local information, and the guidelines for transferring information from Thai to English. In translating words/idioms, the researcher used a bilingual dictionary (via

https://dict.longdo.com/) to find vocabulary, word definitions, synonyms, and antonyms from Thai into English. The process, then, included checking basic language function and content words. For example, basic language covered basic greetings (*Sawaddee*), thanking (*Khob-khun*), apologising (*Koh-tod*), place (*Rongrain* = school), explaining fixed-expressions (*Yim* = Smile) and phrasal verbs. Content words covered nouns, verbs, adjectives, adverbs concerned with culture such as concrete words like ไหว้ (*Wai*), which means 'pay respect or salute'; หนู (*Nu/Noo*) means 'you' (for children), 'mouse' or 'rat'; แคบ means 'narrow' or 'small'; เด็กเล็ก can be translated as 'young children', but เด็กตัวเล็ก can be translated as 'small children'. In such a case, the researcher needed to understand the context of the sentence to select the appropriate vocabulary and to ensure the word selection preserved the original meanings and avoided bias in the data interpretation (Pojprasat, 2007).

Table 7: Sample of translation process

Source language:	**Forward-translation:**	**Backward-translation:**
Literature ก็ช่วยส่งเสริมความคิดสร้างสรรค์ ด้วยกิ่งที่มันเห็นแบนๆอยู่ในเรื่องเนี่ย มันมาปรากฏอยู่ต่อหน้าหนูความ 'ปิ้งปั้ง' มันทำให้เกิดแรงบันดาลใจ ความเชื่อว่าอะไรๆเป็นไปได้ ไม่ปิดกั้นความคิดเด็ก	'Literature also helps them to develop creative thinking. When the flat story in the book really appears in front of you, it produces an effect of [a] 'Blink Blink' feeling. It is an inspiration. It shows to children that anything is possible and it does not block children's ideas.'	วรรณกรรมช่วยให้พวกเขาพัฒนาความคิดสร้างสรรค์ เมื่อเรื่องราวเรียบแบนในหนังสือปรากฏขึ้นตรงหน้าคุณ มันจะสร้างความรู้สึก บลิ้งบลิ้ง มันเป็นแรงบันดาลใจซึ่งแสดงให้เด็กๆ เห็นว่าสิ่งต่างๆสามารถเป็นไปได้ และมันไม่ปิดกั้นความคิดของเด็ก

Moreover, with syntactic concerns, the original transcript was immediately presented in separate block of texts and subsequently the transcription was translated using a line-by-line technique. The process of translation began with the process of breaking down the dialogue into single sentences to check sentence structure, sentence collocation and grammar. Breaking down the sentences makes data become clearer and easier to translate word-for-word. It is known as forward-translation and backward-translation (McDermott and Palchanes, 1994) including checking word and meaning, translating Thai into English, checking sentences, translating English into Thai, finding synonyms, and checking spelling in order to ensure the

correct translations. The discrepancies which occurred during the process are then negotiated between the two bilingual translators (the researcher and the Thai translator) (See Table 7).

As we can see, translation process involves the translators translating the qualitative texts in Thai into English with semantic (similarity of meaning), syntactic (translated texts are consistent with context), and cultural consideration (cultural equivalence). The forward-translation and backward-translation helped the researcher to check the texts and language equivalence in standard English. This can help the researcher to ensure the grammatical structure keeps the original meanings and avoids cultural error, meaning loss or bias throughout the translation.

3.10 Trustworthiness: ensuring the quality of the research

In qualitative research, trustworthiness is key to making the qualitative research believable and trustworthy. Notably, trustworthiness has been seen as different from the concepts of validity and reliability in quantitative research (see Table 8). According to Lincoln and Guba (1985), trustworthiness in qualitative research refers to credibility, transferability, dependability, and confirmability and we may note that creditability relates to internal validity, transferability relates to external validity or generalisability, dependability relates to reliability, and confirmability relates to objectivity.

Table 8: The comparison of the concepts of trustworthiness in qualitative research and the concept validity and reliability in quantitative research

Qualitative	**Quantitative**	**Construct**
Credibility	Internal Validity	Truth Value
Transferability	External validity	Applicability
Dependability	Reliability	Consistency
Confirmability	Objectivity	Neutrality

Creditability refers to producing correct data (Lincoln and Guba, 1985). This is focused on the quality of the data, the adequacy of the information rather than the amount of the data collected. Many strategies manage the accuracy of the results, such as data triangulation,

triangulation, and member checks. This study included using different research tools (see in *Adequacy of data*) that can obtain answers from different question to our topics, sought different sources to gain data from different persons, and utilised different methods for the production of the reality of the events from different points of view. In reality, the researcher and participants are only ones who can verify the credibility of the results. Persistent observation can limit misinterpretation and prolonged engagement in the field can increase neutrality and diminish the distortions and biases of the researchers in response to unusual events. This creates the accuracy and adequacy of the data.

Transferability is involved when the findings of specific situations and methods can be transferred to other contexts (Lincoln and Guba, 1985). Using purposive sampling presents a range of specific evidence that can provide purposive selection sites and participants. Besides this, collecting 'thick descriptions' can provide highly detailed information about the situation and methods. Adequate information (see page 107) and precise data (full details, quick transcription, and good translation) can ensure that findings can be generalised to the same population in other contexts or to other groups of people. The comprehensive data provides sufficiently detailed descriptions to allow judgements on the transferability in the context to be possible for future readers.

Dependability affirms that the research results are consistent and can be repeated with the same or similar participation in the same or similar contexts. This was assessed by the degree of conducting research methodology, presenting, and analysing research data. Repeating the same techniques in relation to credibility can demonstrate the quality of the research and enable the researcher to accomplish similar results in other studies and help them to understand the methods and their effectiveness. In order to indicate dependability, the context of this study in its specific setting has been described in order to exhibit the location, size, history, aims, policy, and programme as well as including teacher's and children's backgrounds in section 3.4 on *Participants and informants* and section 3.5 *Context of the study*.

Confirmability highlights the accuracy of the research findings based upon the data collection. It focuses on the process of producing data and findings, as in the methodology chapter. The

potential bias of the researcher has been described in section 1.7, *My own positionality*, and in terms of the views of creativity; however, it is not a concern since the assumption of qualitative research is to allow the researcher to present their unique viewpoint to the study.

3.11 Ethical considerations

The need for research in early childhood education is increasing since the schooling of preschool children aged 3-6 years is becoming recognised as a key element of education. Moreover, research with young children is seen as crucial because it can create an advanced understanding of a child's development or factors relating to interventions into their development and abilities (Fraser, Lewis, Ding, Kellet, and Robinson, 2004). It is important to discover the most appropriate research methods to gain information from particular participants. The results from such research may also open up novel possibilities to develop children, adults, or societies. It is important that researchers take care of a number of necessary considerations such as ethics approval, consent, the legal system, power relations, methodology, and others which may arise in the planning, conducting, and dissemination of this phase of research.

In this study, ethical considerations in research with young children have been considered as an ongoing and reflexive part at all stages of the research processes. It begins with researching the ethical concerns in both Thailand and England. Searching for the ethics for researchers in Thailand, it was discovered the Office of National Research Council of Thailand (2013) have indicated nine codes of ethics for researchers. Two codes out of nine demonstrate the ethical issues involved in doing research on human subjects, while the rest focus on the research organisation, funding, and principles for appropriate behaviour and morality of researchers, et cetera. The codes indicate 1) the awareness, responsibility, and respect to human dignity and human rights; and 2) consideration of the use of participant information and publication. However, there are no clear practical issues of ethical consideration when doing research into young children; there is only a professional code of ethics for teachers who work with young children. Therefore, this section suggests seven necessary considerations based upon the research ethics guidance found during the English literature review, combined with principles used in Thailand; these include permission, consent and right of withdrawal, participatory

research practices with young children, anonymity and confidentiality, visual data, dissemination, and benefits.

Gaining permission

Ethics in education is concerned with 'the principles and guidelines that help us uphold the things we value' (Johnson and Christensen, 2010, p.99). Conducting research in schools requires gaining access, obtaining informed consent and respect for the confidentiality, anonymity, and privacy of the subjects. In Thailand, ethical approval is essential in order to conduct educational research. To gain access to schools in Thailand, the researcher needed to hold a Study Protocol and Consent Form Approval Letter from their current University, institute, or organisation before asking for permission (Chulalongkorn University, 2018). The researcher wrote the form for the school to consider and to ask the school for permission. After the selection of the case, the researcher indicated the specific settings and had conferred with the teachers who agreed to participate in this study. The researcher created a Study Protocol, Letter for school settings and teachers and parent and guardians (Appendix A and D) and Consent Form Approval Letter from Liverpool John Moores University (see in Appendix B, C, E and F) and send it to the preschools involved to propose the research project and to obtain their permission. The school responded to the letter with permission to access the classroom settings without insisting the researcher in any activities. Yet, they require one condition for accessing the setting, which was the researcher is allowed to access into the setting but is not allowed to disturb or change the daily routines, activities, or manners of the children.

Consent and right of withdrawal

Moving to another important point, obtaining informed consent is a human right, and consent was a requirement whereby the researcher had to explain clearly what the subject had to do in the research and to ask permission from them to participate in the research as a volunteer without coercion, pressure, or inducement (Roberts-Holmes, 2005). For the assent of the child, a consent form was provided to be signed by their parents or guardians (see in Appendices B and C). The form was created to inform clearly what the subject was expected to do in the research. It included details about 1) the area and the aims of research (what the research is

about), 2) the roles of researcher and the participant, 3) the benefits of participating in the research, 4) how anonymity and confidentiality will be documented, 5) the choice to consent as a volunteer, or not to participate, without coercion, pressure, or inducement, and 6) the right to withdraw from the research at any time (Lancaster and Broadbent, 2003). All participants returned the form granting permission and without refusal.

Participatory research practices with young children

It is clear that ethical considerations in preschool settings are an important and growing focus. However, work in this field brings with it ethical challenges since the work inevitably (or at least frequently) includes data gathering involving young children. Gaining consent from young children has been considered carefully. This is because obtaining consent from children (aged 4-5) in written form only could be difficult for them (Nutbrown, 2011) since, although preschool children are articulate in listening and speaking, they struggle in reading and writing formal language (Matutina, 2009). The researcher, therefore, chose the additional methods of getting oral consent from each child involved in this study. The oral consent requests were made during large group activities with the class teachers in order to ask for permission to gain access into their classroom and observe them in their classroom activities. The researcher and the classroom teacher explained that 'the researcher would like to study what/how children learn'. Children asked the researcher the question, 'What is the study about and why?'. This was explained in simple words; the researcher stated that 'the researcher aims to do the research with children to study children's creativity'. The researcher linked the word 'study' to 'children's study in everyday life' to illustrate the practical action they could expect from their perspectives. The discussion then extended to giving them information on the purpose of observation in their classrooms and collecting pictures of them or their artefacts. The children responded with positive words, such as 'Yes, I will allow Kru Ying (the name of researcher in Thai) to be with us' and 'We will have Kru Ying observe us. Overall, the responses from the children demonstrated their interest in having the researcher conduct the research with them in their settings.

Anonymity and confidentiality

Maintaining the confidence, anonymity and privacy of research participants is extremely important (Roberts-Holmes, 2005). The reason for the anonymity of the participants needs to be told to participants and informants, the teachers and children, since they may sometimes wish to have their own names used (Matutina, 2009). On the other hand, the researcher may need to encourage the participants to choose their own pseudonyms to deal with these issues (ibid.). In this study, maintaining the confidentiality, anonymity and privacy of research participants was fully assured. The researcher explained to the schools and teachers about the anonymity in this research. The discussion reached the conclusion that the school names would be replaced by ID codes – School A and School B – and teachers' names would be replaced by ID codes too: teacher A1, teacher A2, teacher B1, and teacher B2. While, the names of the children were replaced with the abbreviation of the first letter of their name: for example, Ton has the abbreviation child T., Lree has the abbreviation child Lr. Kanoon has the abbreviation child K.N. et cetera. The discussion about and guarantee of anonymity in the process aims to negotiate and secure agreement with the participants and informants. The abbreviation is used in order to keep participants' confidentiality after research publication (Nutbrown, 2011).

Visual data

The visual data including photographs or VDO recordings became one of the useful resources for research with young children (Graham, Powell, Anderson, and Fitzgerald, 2013). Children often asked the researcher to take pictures of their work. Thus, careful considerations were needed to highlight the use of all the photographs that might be misused: 'if it falls to wrong hands, what are the dangers of images posted on the web being maliciously manipulated for exploitative purposes; might the young person be later embarrassed by the picture?' (University Research Ethics Committee (UREC) 2018, p.3). Furthermore, British Psychological Association (2013) suggested that the researcher may resolve the visual data issues by pixilating the images of children's faces or negotiating with children to choose alternative options. However, using visual data in this study has been discussed with the participants in terms of the cultural aspects in Thailand. In this study, the photographs of children, teachers, classroom activities, and artefacts could be used in the research with the

full consent of all participants. (See the full consent form for parent and guardians in Appendix D, E and F). In this sense, the researcher continued an ongoing process in small group or individual observations and asked for permission to take notes and take pictures of children all the time. It is interesting that throughout the observation children were very cooperative when being observed and when photographs were taken. Often, a child asked the researcher to take pictures of himself/herself while doing an activity or showing their artefacts to the researcher. Children agreed and showed willingness and positive reactions to playing a part for visual data collection. All pictures used in this research were sent back to the school, teachers and parents to check for their authorisation to present them in this thesis. Usually, the faces of children would be pixilated in some sensitive cases or if requested by parents/guardian. Nevertheless, the faces of participants were presented in full since it is generally appropriate in Thailand to show children's faces in academic work.

Dissemination

Before research began, the participants had been informed about the outcomes and dissemination of the research. The researcher had built up a relationship between them and teachers in the school. The researcher re-contacted the teacher via the Messenger app. These informal conversations provided a platform for discussions with staff for further findings in this study. Afterwards, the researcher had chance to visit the schools and had an opportunity to chat with the teachers and parents of the children. This helped the researcher to gain an awareness and understanding, or change practices which might impact on developing children's creativity and creative teaching in each case.

Benefits and payment

Last but not least, the researcher considered the possibility of benefits and payment for participation. It is suggested by the University Research Ethics Committee (UREC) (2018) that the researcher needs to consider very carefully whether teachers and children should be paid for spending their time in participating in the research. The researcher may, however, consider giving small gifts to show their appreciation to the participants for their involvement (ibid.). Thus, in this research process, the researcher gave small notebooks to the children at the end of the fieldwork as a way to show gratitude and thank the children and teachers for their participation.

Chapter 4: Research findings

This chapter begins with a further brief discussion of the literature and underpinning theory on the topic prior to an examination of the data gathered in the study in order to explore the research questions. A thematic analysis, relating to the research questions, is used to give a clear organisational structure thereby bringing together the major themes as well as their contents into a straightforward layered sequence in the analysis. At all levels, the data is compared and contrasted in order to analyse the multiple dimensions of the development of creativity in preschools. The four specific themes addressed are as follows:

1) Conception and perception of creativity
2) Creativity and pedagogical approach
3) Creativity and school environment
4) The potential barriers that inhibit the development of creativity in Thai preschools

The first theme highlights the conception and perception of creativity in two preschool classrooms in Bangkok, Thailand. It addresses topics including the significance of creativity, language use and creativity, the place for creativity, the moments for creativity, and creative and uncreative children's activities, in order to indicate the meanings, importance and challenges of creativity that are linked to teachers' practices. The second theme focuses on pedagogical approaches and on the teacher's role in promoting creativity. It presents the approaches used to develop creativity in circle time, art-craft activities and free play activity and reveals the actions and relations between teacher and learners that create the learning atmosphere needed for creativity. The data analysis has uncovered contradictions between the attempts to bring creativity into early childhood education and the restraints of the formal learning and academic learning, as well as the position of teachers that espouse creative learning and causes behind the challenges of nurturing creativity in actual practice. The third theme focuses on creativity and school environment. The findings revealed the factors that influence children's own creative development including space, materials, the role of teachers and the temporal environment such as the timing, sequence and length of routines and activities that take place throughout the day. The final theme focuses on the barriers that

constrain the development of creativity in Thai preschools. It presents the implications of the cultural environment such as school ethos, norms and learning styles. The findings reveal the social beliefs and values that influence children's creativity, which includes the role of the school and the teacher in daily routines, seniority, conformity, love, happiness, freedom, controls, academic issues, time management, and the perspective of the teacher when looking at the creative learners. The data discloses the operant factors that play a significant role in promoting and hindering the teaching and learning of creativity in the classroom.

Theme 1: Conceptions and perceptions of creativity

This section provides an overview of teachers' conceptions and perceptions regarding creativity, including the significance, meanings and place for creativity and the challenges and opportunities to foster learners' creative thinking and behaviour in their classrooms. In addition, the curriculum is examined in order to show the different conceptions of creativity and the language used in relation to creativity in the preschool setting studied in relation to each other and to broader ideas in the literature. This was drawn sequentially by the guiding research question and sub-questions as follows: *RQ1: How do the preschool teachers in two preschool settings in Thailand (Bangkok) understand the concept of creativity, and how do their perceptions support their use of creative practices in the classroom?*

The data analysis consists of three section: (a) significance of creativity; (b) teachers' conceptions and perceptions of creativity; children's creativity; little-c creativity, imagination and sense of aesthetic; and (c) various perceptions of creativity and the dilemmas of the concept of creativity in the school context.

4.1.1 Significance of creativity in the preschool curriculum

The official recognition of the importance of creativity in early childhood education started in Thailand with the first Early Childhood Curriculum (B.E. 2546) in 2003. This new curriculum listed 'creativity and imagination' as one of the 12 standards to promote a child's learning with age appropriate guidelines (ages 4-6 years). More recently, in the new Early Childhood Curriculum, B.E. 2560 (2017), creativity and imagination also appear in relation to the 'Scope

of Learning' and the 'Key Experiences Enhancing Cognitive Development'. Both curriculum areas mentioned the development of creativity in similar ways. They recommend that the teacher provides creative activities, such as drawing, painting, sculpting, making collages, making crafts, playing with sound, music, movement, role-play, block-play, and sand-play.

Subsequently, the School A Curriculum (2008) and the School B Curriculum (2013) also listed 'creativity and imagination' as one of learning goals to promote a child's learning. The school curricula employed the identical domains of learning and of development from the early childhood curriculum. Both school curricula related creativity with the activities wherein children choose freely, which allowed the children to make choices, decisions, solve problems and creativity such as playing in play areas or outdoors.

> School A Curriculum B.E. 2551 (2008) noted in 'Learning Experience' that, 'Developing imagination and creativity. To allow children to express their creativity, emotions, ideas, be aesthetics, see and experience the beauty of the things with imagination though creative narration, creative toy, artwork, music, movement, making crafts freely, and imaginative work, play roles, free play with block, sand, construction play as well as play with various items such as natural materials, toy, and freeform materials.' (p.36)

> School B Curriculum B.E. 2556 (2013) noted in 'Scope of Everyday Activities' that 'Enhancing imagination and creative thinking. In order for children to promote creative thinking, express their emotions and feelings, and appreciate the beauty of things around them, teachers should use creative art activities, music, movement, and rhythms to enhance imagination. Children should also have opportunities to freely create things, to play in various play areas, and to play with water, sand, and blocks using different sizes and shapes to construct buildings.' (p.51)

The statements in the curricula show that creativity in early childhood education is frequently described with the term imagination and linked to emotional and cognitive development. They emphasise links with the features of creativity such as expressing emotions and feelings, being aesthetically aware, and engaging with the beauty of the object or activity. Both curricula

suggest children should develop their creativity through expressing themselves in different and unique ways in conditions suitable to their interests and learning styles. Creative activities such as creative art and crafts, music, movement, and rhythm and imaginative play and free play with various materials were the main pathways for creativity. The emphasis on creativity and imagination using art and play is close to the definition of creativity by NACCCE (1999), which defined creativity as 'imaginative activity fashioned to produce outcomes that are both original and of value' (p.29). Also, Treffinger, Schoonover and Selby (2013) noted that creativity is 'the ability to use the imagination to develop new or original ideas or things, especially in an artistic context' (p.24). From these definitions, the idea of creativity as linked to imagination is seen to be a traditional concept for children's creativity since it enlarges the child's thinking ability and sense of wonder as fits with the stage of their learning. Such notions reinforce the idea that creativity and imagination are involved with the creative person who has the ability to produce creative ideas or works. This accords with the responses from the teachers, which demonstrated that children naturally use their imagination to bring on new ideas. (See in 4.1.2 *Teachers' conception and perception of children's creativity; little-c creativity, creative problem solving, imagination and sense of aesthetic*.)

Nevertheless, while examining the concept of creativity, the word creativity is not fully marked in the early childhood curriculum nor the school curricula. In School A, the school curriculum, rather, equates the word creativity with a term which, in Thai, is closest to 'imagination' and where the word 'creative' is employed it is almost always related to creative concepts such as 'creative ideas', 'creative language', 'creative activity' and 'creative toys' (School A curriculum; see in Table 9). In comparison, in School B, the curriculum was used in relation to specific activities or other terms such as 'creative media, materials, toys and work products', 'creating work', 'creating beautiful things or creativity' 'speaking creatively' and 'expressing creativity through language, gestures, movement and art' (School B curriculum; see in Table 10). In this sense, the term creativity is used in many ways to emphasise the essentials of creativity in preschool settings.

Table 9: Domain of development in school A curriculum

Physical domain	Emotional and mental domain	Cognitive domain	Social domain
Play and create artefacts with creative toy, clay, plasticine, wooden blocks, and other materials	**Music** Sing a song Play and react with music and sound Play with musical instrument **Aesthetics** Admire and create beautiful things Enjoying fun activity, story, and events **Play** Free play, construction play Group play/ individual play Indoor/outdoor play	Create artwork to communicate their thoughts and feelings with flexibility, originality and elaboration Express **creative thinking** through various materials and objects Observation, listening, thinking, **problem solving**, and language Explore, experiment, experiment with real objects. Express their imagination, ideas through drawings or telling story Develop **creative language** ability and meaningful speech Know the features or properties of the things and surroundings Observe objects or objects that contain different colours and shapes	Play and work with peers Think, plan, make decisions, and solve general problems with the others. Express and share emotional and **creative** ideas with the others Share, accept and respect the others' ideas Solve the problem

School A Curriculum B.E. 2551 (2008)

Table 10: Domain of development in school B curriculum

Physical domain	Emotional and mental domain	Cognitive domain	Social domain
Play and create artefacts with creative toy, clay, plasticine, wooden blocks, and other materials	**Music** Listening to music, singing songs, and moving to music Playing rhythmic musical instruments Moving to rhythm/music Dramatic play Doing art activities. **Creating** beautiful things/**Creativity/ creative ideas** **Aesthetics** Admire and create beautiful things Enjoying fun activity, story, and events **Play** Free play, construction play Group play/ individual play Indoor/outdoor play	Perception and expressing thoughts or feelings through and **creative media, materials, toys and work products** **Expressing creativity through language, gestures, movement and art** **Creating** work products using shapes from a variety of materials **Speaking creatively** in play and actions Create artwork to communicate their thoughts and feelings with flexibility, originality and elaboration	Experiences that support children to perceive and learn things around them through interaction with environment, people and objects with a variety of learning processes Therefore, children have opportunities to develop their language, imagination and **creative thinking**, problem solving, reasoning thinking, concepts of things, including concept of mathematics as the basis of further learning.

School B Curriculum B.E. 2556 (2013)

We might compare use of the terms ‘creativity’ or ‘creative’ in the two curricula, as both schools emphasise creativity in terms of music, language, movement and play. ‘Creative activity’ refers to the processes of producing novelty, originality, flexibility, and elaboration in child’s works such as drawing, painting, playing with colour and making creative crafts. ‘Creative language and communication’ refers to the uses of language to express creativity through conversation, communication, poem, song and music. It is linked to the ability and process of making ideas, and expressing creative communications and feelings. ‘Creative ideas’ are seen as creative products that are often visible materials and traditionally take the form of arts, music, language, and play or in the form of ideas, communications and expression in a child’s work. Meanwhile, ‘creative toys, media, materials’ refer to open-ended toys and natural materials such as wooden blocks, Lego, rocks and sand. The objects could be seen as part of a creative environment that provides open-ended materials to extend people’s creativity and imagination and support them in merging their inner thoughts and allowing them to create their work with freedom and value (Stark, 1987).

Table 11: The comparison of creativity in the curriculum based on the creative Four Ps

Creative process	Creative product	Creative press	Creative person
•Creative activity: drawing, painting, playing with colour, making crafts •Creative language and communication: conversation, communication, and poetry •Music and movement	•Artefacts or artwork that communicate a learner's thoughts and feelings with flexibility, originality and elaboration •Creative ideas •Work products and beautiful things •The original or creative thoughts produced by learners	•Creative media, materials, toys and work products •Open-ended materials •Natural materials	•Teachers to cultivate children with love and care •Teacher providsd the sense of safety •Allow children to learn freely in order to develop their imagination •Povide education with polite manners and be sensible with them

Comparing those terms of creativity to the definition of creativity based on the creative Four Ps by Rhodes (1961), the explanation of each feature introduces the key ideas of creative process (creative activity, language and communication), creative press (toy, media and materials) and creative product (creative ideas, work product and beautiful things) (see in Table 11). In both curricula, creative activity can be referred to as ‘creative processes’ that

create or generate novel and original outcomes, approach problem-solving in a creative way, imagination, and balance the relationship between previous knowledge and experiences by taking many possibilities and accepting various approaches. It can be said that the curricula offer a wide range of activities: opportunities for learners to experience interesting and engaging activities, to inspire their creative thoughts with joyfulness, and to build up their self-confidence, self-esteem and positive reinforcement of oneself (Craft, 2001). In this sense, the views of creativity across a variety of domains of learning can be compared to the Early Years Foundation Stage (2012) which implies creativity is not a subject but associated with the skill of making connections, creating innovation, using imagination and originating ideas between different areas of learning. Creativity is mentioned in terms of art, music, dance and drama –clearly referring to the arts areas. Effective learning, which includes play and exploring, active learning, and creating and thinking critically – by having their own ideas, making links and choosing ways to do things (QCA, 2000) – is emphasised as a platform for creative learning in the school.

From the product perspective, explanations of creativity refer to the originality, novelty, flexibility and elaboration of thoughts produced by learners, but the traits of creativity, such as being relevant and valuable, have not be identified in the curriculum. The key concepts, outlined above, agree with those of several researchers such as Rogers (1959), Gedo, (1990), Gardner (1993), NACCCE, (1999), Duffy (2006), and Ross (2007) who define the major characteristics of creativity as involved with producing novelty, originality, flexibility, elaboration and imagination. The elements of a creative product seem to share common features based on the classic model of creativity offered by Guildford and Torrance who focused on divergent thinking rather than the definition of creativity as new, good, and relevant (Boden, 2004; Kaufman and Sternberg, 2010). It was argued by Kaufman and Sternberg (2010) that creativity is ‘a creative response to a problem that is new, good, and relevant’ (p.55), and Dust (1999, p.127) stated that the features of a creative product include being practical, useful and/or having an artistic quality. This emphasises creative products both as the products and the outcome of the behaviour caused by particular constellations of personal characteristics, cognitive ability and social environments. This is similar to the work of Amabile (1983), who recommended that ‘a product or response will be judged as creative to the extent that (a) it is both a novel and appreciated, useful, correct, or valuable response to

the task at hand and (b) the task is heuristic rather than algorithmic' (p. 360). In this view, creative products should be considered as a result of generating creativity and can be either concrete or abstract outcomes, such as a product that people create, and can take the form of artwork, musical compositions, written documents and other inventions. This should include the idea that the abstract outcome takes the form of the ideas that children express or the responses that they make during their work and play.

Another important point associated with the creative press relates to the environmental factors that influence the creative person, process and product. The range of learning materials, equipment and space for children allows children to manipulate, construct, and play with their ideas and objects, as was stipulated as good practice by Duffy (2006). In addition, the active role of the creative environment is not a passive issue but also relates to social setting, which can affect motivation and support for learners (Cropley, 2001). In fact, the curriculum highlights the external elements, referring to open-ended or freeform materials, and the role of the teacher in providing an open-ended and safe atmosphere to support children in expressing their ideas. However, Curriculum A specifies things such as 'creative toys', while School B identifies creative media, materials, toys and work products rather than creative learning resources – as well as the aspect of the creative person being unclear. In contrast, creative press is focused on mainly in terms of objects rather than the creative environment. This reflects the focus on creativity as the main goal, but there is comparatively little attention paid to creativity as a holistic process in the curricular interplay between the fundamental principles of a child's learning that require quality and quantity of creative people (children and teachers), creative process (holistic, constructive and playful learning), and creative press (learning strategies, resources, and timing) to empower children's creativity in the classroom context.

It seems clear that the role of the teacher, as well as managing the interaction between adults or peers and the social context, is to exercise an essential influence on prompting and promoting children to become curious, to make choices regarding activities, and to work creatively. As suggested by Feldman, Csikszentmihalyi and Gardner (1994), there is a threefold concept of creativity originating from the interaction between a) an individual, b) a field (culture and social context) and c) the domain, such as the organisation or structure of a

body of knowledge that is linked with the individual. The quality of the environment is an important factor in inspiring children and giving them opportunities to work individually or as a group, and may help in planning them to work freely. There should be multi-directional interaction between the individual and the environment to encourage creativity, such as opportunities and good reinforcement; meanwhile, the environment changes the individual in terms of intelligence, competence, and personality (Mellou, 1996). A quality environment should promote creativity and ensure adequate freedom, challenging experiences, appropriate resources, a supportive facilitator, diverse and communicative colleagues, recognition, a sense of cooperation, and a supportive organisation.

4.1.2 Teachers' conceptions and perceptions of children's creativity; little-c creativity, creative problem solving, imagination and sense of aesthetic

The conception of creativity was emphasised by the classroom teachers as the initial perception of creativity linked it to the word 'creating', which suggests a general concept of idea generation that focuses on a creative product, or course of action or ideas (Anwar et al., 2012). It entails 'imaginative activity, the ability to generate a variety of ideas (productivity), problem-solving (application of knowledge and imagination to a given situation) and the ability to produce an outcome of value and worth' (Sharp, 2011, p.5). This appears clearly in the field notes when the teachers discussed the interview questions. IQ2 is 'what do you mean by creativity in the preschool classroom?'; it aims to get an illustration of what children's creativity means in their classrooms.

Class teacher A1 noted that creativity is a cognitive development which is embedded in a part of everyday life.

> Creativity is the cognitive development of children which is embedded in a part of everyday life. Children who are creative, they can do something new, intricately detailed, diverse, adaptive and not limited to a piece of art. The creativity of people appears in many ways. I believe that children can be creative more than just making art such as creative movement, creative speech or narration, which shows a different idea from the others. It is not necessary

> to repeat the same way, there are several ways to go. If you prefer the old way, you should do it in more detail or if you are stuck you should find a new way to go. For example, [you] went to this field today so how can you find the way to go to the field tomorrow? In summary, it can be said that creativity is related to the way a child spends everyday life with a variety of the exotic and flexible. That is creativity.

In defining creativity, this explanation demonstrates a broad view of what creativity is, not only what the traits of creativity are, by looking at how creativity functions in preschool classrooms. Teacher A1 emphasised that the concept of creativity is based on a 'cognitive ability'. Children who have a high level of creativity will be able to create new, intricately detailed, diverse, exotic product, which might occur in art, movement, creative speech or narration, or problem-solving in everyday life. The response corresponds with the traits of creativity as they appear in School A's curriculum (2008), which emphasises creativity in terms of the creative divergent thinking from pioneers in the field such as Guildford (1967) and Torrance (1974), who proposed the idea of creative thinking related to the cognitive characteristics of creative people who create a number of new, unique, flexible and elaborate ideas. This shows that a good understanding of the concept of creativity comes from the knowledge of creative divergent thinking, which focuses on the properties of the creative product, which is embedded in a part of everyday life.

Teachers A2 and B2 noted that children's creativity can refer to creative persons who have the ability to create new, different and unique outcomes as well as being skilled in adaptation and adjustment, playing with ideas and problem-solving.

The class teacher A2 noted,

> Creativity is the ability to think differently or being adjustable and having the ability to make diversified, miscellaneous, elaborate, or complex ideas. In the classroom, creativity links with imagination. Children should have the right to express their imagination and creativity through narration, creative toys, and artwork to create original ideas, thinking differently, and maybe connecting to prior experience to solve new problems.

Class teacher B2 noted,

> Children's creativity is about being adaptable when encounter[ing] problems or dealing with unexpected situations. The process of creativity throughout activities is important. Creative children will be able to create novelty, produce elaborate outcomes, think differently, and work adaptively. Being creative, thinking differently, and working flexibly helps children to be flexible and able to find various solutions when they encounter any issues.

The responses from teachers A2 and B2 imply an understanding of the concept of creativity which focuses on a creative person's abilities and the properties of the creative ideas. The responses from the teachers share some common traits when describing creativity, such as newness, difference, originality, and uniqueness, which are close to the well-known concept of creativity that is used in educational research worldwide (Guilford, 1950; Torrance, 1981; NACCCE, 1999; Craft, 2002; Treffinger et al., 2002; Amabile, 2010; Sternberg, 2012). This can be compared to the concept of creativity as a thinking difference since creativity is a 'combination of flexibility, originality, and sensitivity to ideas which enables the thinker to break away from the usual sequence of thought into different and productive sequences, the result of which gives satisfaction to himself and possibly others' (Jones, 1972, p.7).

On the one hand, the teachers placed great importance on the creativity involved in the process of problem-solving and the ability to identify new problems and search for solutions. The teachers mentioned that relevant terms about creativity such as critical thinking, problem-solving, and making decisions are processes that foster creativity. Accordingly, teachers' perceptions of creativity are close to the concepts of little-c creativity or everyday creativity (Craft, 2002; Craft, Cremin, Burnard and Chappell, 2007), which focuses on the ability to find and solve problems, discover multiple aspects and address valuable questions. This can be compared with the ideas promulgated by Feldman, Csikzentmihalyi, and Gardner (1994) about how the creative problem-solving process is approached: 'problem finding and problem formulation are as critical to creativity as problem solving' as are a number of other processes (p.3). This harmonises with the Report of the Secretary's Commission on Achieving Necessary Skills (SCANS), which proposed 'creative thinking' was generating ideas,

‘problem solving’ was recognising problems and choosing best plans for action, and ‘decision making’ was specifying goals, constraints, generating choices, considering risks and evaluating the best alternatives (Treffinger et al., 2013). The goal can be the essential elements of the creative process involving questioning, challenging, making connections, envisaging the possibility, open-ended exploration, and reflecting critical ideas and action, which help people to identify the sources and generate creative outcomes (Craft, 2005). In this sense, the concept of creativity seems to be related not only to the ability to generate creative outcomes but is also associated respectively to the process of searching, formulating, and discovering new ideas and an appropriate solution.

Another important point, the teachers associated creativity with imagination and explained that children naturally use their imaginations to bring on new ideas. The teachers gave examples of the use of imagination as the process of perceiving new information and combining emotions and visual images in order to generate creative ideas.

Class teacher B1 noted,

> In the classroom, creativity links with imagination. Creativity in the class is about giving children space and time to play or draw freely, is being creative; to use worksheets is not creative. Children should have [the] right to express their imagination and creativity through narration, creative toys, and artwork in everyday activity.

Class teacher A2 noted,

> We can observe creativity in art and play activities. Children are very imaginative when they manipulate their work. When they were making something, they are not only making a piece of work – as I said. There is some imaginative… meaningful story in it.

The responses from the teachers emphasised the role of imagination as a pathway to cultivating creativity. Imagination, and being involved in imaginative activity, can be seen as mental play that comes with a certain purpose. Imagination and creativity are not identical, yet the imaginary process can include creative insights or creative processes (Amabile, 2010),

which appear when the prior ideas are merged or regenerated out of the usual areas or in an unexpected phenomenon. It also gives a sense of wonder and enables children to see various possibilities and find new ways to see or think in ordinary situations.

The emphasis on the correspondence between creativity and imagination and little-c creativity is focused on 'imaginative activity fashioned so as to produce outcomes that are original and of value' (Ken Robinson, NACCCE, 1999, p.30) rather than Big-C creativity, which focuses more on creative geniuses, talented individuals or unique persons (NACCCE, 1999; Craft, Jeffrey and Leibling, 2001). This has been asserted by several authors from different parts of the world. For example, NACCCE (1999), who reported that the creative process 'always involves thinking or behaving imaginatively… imaginative activity is the process of generating something original: providing an alternative to the expected, the conventional, or the routine' (p.29). Meanwhile, Vygotsky (1930, 2004) stated that the imaginative functions are a crucial impulse for all human creative activities (Kuan Chen Tsai, 2012). This is because the performance of imagination is possible through the richness and broadness of children's experience, as 'imagination always builds using materials supplied by reality' (Vygotsky, 2004, p.4). This conforms to the metaphor of imagination as 'the seeds that grow into superb creative abilities, provided the right fertilizer is added' (Craft et al., 2001, p.18). It is explained that imagination is the process of creating the mental image, sounds, or emotions in people's minds. With this in mind, the emphasis on imagination seems to be a traditional view of children's creativity since it expands the child's thinking ability and sense of wonder to fit with that stage of their learning. However, it was noted that the formal structure of schooling can be an obstacle to growing the natural power of imagination and creativity (Craft et al, 2001).

Examining the children' artefacts and taking into account the classroom observations, the children showed themselves, through their behaviour, to be both creative and uncreative/less creative learners. In the worksheet activity, most of the time children usually sat silently and passively followed their teacher's instructions. In this moment, the children seemed to have less space to express their ideas or create or produce any creative outcomes. Meanwhile, in free drawing or open-ended craft activities, children were fond of engaging and chose their preferred activity and moved around to the other art tables until they had completed all the

tasks of the day. They were keen to play and explore the various experiences as well as express and share ideas with their peers. This implies that the learning environment played an important role in supporting or limiting children's creative behaviour. When children engaged with a creative pedagogy and environment, they tended to show more creative behaviour in various ways. Yet, when children engaged with a fixed way of learning or passive education, they tended to show less creative behaviour. Thus, it can be concluded that all individuals can be fostered to be more or less creative within the conditions provided.

In relation to the issue of creative versus copying work, Kaufman (2014) noted that 'copying is incompatible with creativity, but mere copying is not identical to imitation' (p.269). In fact, the evidence showed that the children were rarely copying any artworks from each other. Many artefacts showed that when children are provided with worksheets of uncreative activities, they tended to produce duller and less creative artefacts or merely coloured in the provided picture rather than representing their own ideas. These closed-ended learning opportunities plus materials, activities and environments, seemed to limit children's ideas, expression and creative progression. On the other hand, when the learning environment offered open-ended opportunities and freedom, children tended to show more active energy and also produce work revealing their identities and uniqueness. This, once more, asserted that children are naturally fond of playing and exploring ideas and the learning circumstances play a big role in nurturing children's creative progression.

4.1.3 Varying perceptions of creativity and the dilemmas of the concept of creativity in the school context

Most of the respondents proposed that creativity has a positive meaning. Some understood that knowledge of creativity is linked to cognitive developments such as divergent thinking, originality, flexibility, fluency, and elaboration - as suggested by pioneers such as Guildford and Torrance. On the other hand, some mentioned views of creativity that reflected imagination and emotional development, such as enjoying a sense of aesthetics, the beauty of things, self-expression, and playing with inner thoughts and imagination. Some respondents, however, had unclear views about creativity and noted that it is not easy to describe and apply

in a real setting. This appeared clearly in the field notes when the teachers discussed the interview questions.

IQ5: After all, how do you feel about creativity/what do you think when you hear the word creativity?

Teacher A2 stressed the difficulty of giving meaning to creativity:

> In fact, we know by common sense that creativity is about how to do something new and different. And, it's about the getting an inspiration to create something or to move you forward… but I think creativity is broad… somehow too wide to be defined. However, it embeds in preschool settings; everybody knows about it but it is not easy to explain the meaning of creativity.

Teacher B1 also noted the complex nature of the concepts associated with creativity as he was not sure about the meaning of the concept:

> Creativity is something that we heard about so far but it is difficult to define and understand. If you ask parents or other people, I'm not sure they will understand it too.

Teacher B2, however, noted the familiarity of the word creativity, though she did not have a clear definition of it. She noted that,

> Creativity is something untouchable. It may occur through many activities in the school but in reality we may see children's creativity or just [a] process for creativity. Children's creativity may appear in the form of artefacts or it could be in their heart, their mind, or their head. It is flexible as it can link their emotions and their brain to create valuable things and sometime express their happiness to the others. Creativity is not easy to define but it appears in the preschool somewhere in some corner.

In discussion with the teachers, they mentioned the problem of giving a definition for creativity. The teachers emphasised that creativity is something familiar and embedded in the preschool setting but it is not easy to define. Teacher A2 mentioned the difficulty associated with the concept of creativity as it is linked to being 'untouchable', that it 'may appear in form of artefact' or 'in their heart, their mind, or their head' and 'happiness'. Teacher B1 noted that creativity is difficult to define. His reaction highlighted the problem of defining the terms and their real practice, and the final discussion ended with unclear concepts of creativity. Teacher B2 noted key phrases such as 'creativity is broad', 'too wide', 'complicated', 'not easy to explain in one word' and 'hard to work on'. Accordingly, the responses from the teachers showed that creativity is a complicated set of processes. The definition of creativity involves an inherently complicated set of elements, which do not work in one line since 'its essence is to go beyond the bounds of what is already given' (Merleau-Pontey, 1962, p.371). The idea of creativity as a wide range of notions and the ability to conceive and express the individual's unique potentials affirms that creativity may be viewed with different dimensions and that there is no one single meaning of creativity nor one right answer when identifying it. The issues around the complexity of creativity suggest creativity should be understood within a specific context relevant to specific circumstances, specific issues, and specific social and cultural contexts (Fumoto et al., 2012). The cluttering of perspectives on creativity by the respondents is related to many theorists who assert that creativity involves a complicated set of elements, including a wide range of notions relating to the ability to conceive and express the individual's unique potential, and this affirms that creativity may be viewed as having different dimensions. The flexibility of the concept of creativity does, however, hand advantages to educators looking to extend knowledge about it, even as it may also bring them challenges when applying creativity in action. In this case, this requires helpful guidelines to lead their teaching towards high-quality practice. The teacher needs to obtain clear understandings of the nature and concepts of creativity for different situations and, in addition, the curriculum needs to give more clarity about the structure and place of creativity as a main path to learning.

If it is complicated, why bother?

The issues associated with complexity of creativity lead to a conversation around 'if creativity is complicated, why bother to bring it in the classroom?' The responses revealed that creativity is essential and indispensable for children's learning. All responses noted the positive advantages of creativity for young children. The main advantages were that it promotes learning skills and problem-solving skills, and increases self-confidence in learners. This is seen vividly in relation to IQ6: How is creativity important for a child's learning/life? IQ7:Does a child need to develop creativity? Why?

The class teacher A1 mentioned that the elusiveness of creativity has its benefits. She believed that,

> There are some things beyond academic goals. Creativity is versatile and it makes everything better… For example, the creative person will always create new things. They will be able to adapt themselves, be flexible, and confident working because they can see many ways to go… In contrast, if they are surrounded with hindrances or closed-ended situations, it could limit them expressing their creative ideas. I think that creativity is an important foundation for all children to develop and improve their future life.

The class teacher B2 stated that,

> I strongly believe that creativity plays a big role in developing and supporting open-mindedness and flexible thinking skills to deal with problems, and communication… as it helps children to extend their knowledge, and expand their viewpoints and link their imagination with the real world.

The respondents agreed that creativity is significant in early childhood education and a lack of support for creativity could have a negative impact on children's learning and behaviour. Teachers A1, B1 and B2 associated the importance of creativity as beyond academic goals as it is a fundamental skill to improve children's perspectives and help them to improve thinking skills. Teachers mentioned that if the school can foster creative children, they will be able to be adaptive, flexible, and identify many possibilities to manipulate; they will also be happy to learn from everything, which builds positive attitudes toward continuous life-long learning.

We may compare this to the ideas promulgated by Craft (2002) and Duffy (2006), who stated that children's creativity is involved in the process of producing or discovering new ideas. Creativity is the application of knowledge and skills in new ways to achieve a valued goal: the ability to identify new problems, rather than depending on another to define them, the ability to transfer knowledge gained in one context to another in order to solve a problem, a belief in learning as an incremental process, in which repeated attempts will eventually lead to success, and the capacity to focus attention in the pursuit of goal, or a set of goals (Seltzer and Bentley, 1999, p.10). The importance of creativity was clearly affirmed by the teachers, which showed the universalisation of creativity in bringing the knowledge of the value of creativity into preschools.

Summary

Overall, we may glean that creativity is considered to be important almost everywhere in the curriculum and lesson plans. In the school curriculum, the term 'creativity' is mentioned in the learning goals and learning experiences. Both curricula state that creativity and imagination shall be encouraged with an appreciation of the **'**aesthetic' and 'beauty of things'. This agreed with what was said in the interviews with teachers. The curricula use the word creativity in a way that is coterminous with creative concepts such as 'creative ideas, creative language, creative activity, and creative toys'. However, the curriculum scatters the elements of creativity into small parts between learning objectives, activities, and learning resources. Indeed, the definition of a creative person does not exist clearly in the curriculum as it is currently expressed. Currently, it focuses on the role of teacher, and the importance of co-operation between home and school, which overlap as the creative press. Besides this, the creative press, the environment for creativity, is limited only to toys and materials rather than the holistic environment and the practice of the teacher.

Clearly, creativity is regarded as teachable through various activities such as art, music, language activity and play activity, while science only appeared in School B's curriculum. It is argued by the teachers in this study that creativity can be nurtured in all areas of learning. People can express and apply their creativity in various domains of human endeavour, since they have a passion and curiosity to do, test, and create novelty and originality to improve

their quality of life. This revealed the ambiguity around whether creativity is situated at the fringe of education or as one of the main pathways in real settings.

Moving on, the teachers' perspectives of creativity coincided with the issues in the school curricula in that the concept of creative product is mainly linked to common key terms such as newness or difference rather than traits such as 'useful' or 'valuable results' (Csikszentmihalyi, 1997; Averill, 1999; Craft, 2003; Ciez-Volz, 2008; Amabile, 2010). The word creativity was discussed alongside different traits such as novelty, originality, uniqueness, diversity, elaboration, flexibility, adaptation and imagination. Moreover, the place for creativity is associated with uses of language, objects, artwork, music, and play through open-ended materials. The true importance of creativity was shown clearly in the descriptions of moments that develop creativity in the classroom. Teachers noted the importance of time for children to engage in creative activity; yet some academic activity plays a role in limiting time available for creative learning.

Eventually, the interviews with the teachers demonstrated a variety of perceptions of creativity regarding how creative children think or behave in their classrooms. However, some of the interviewees indicated the challenges and dilemmas relating to creativity in the school context. This reflects the need to clarify the meaning of creativity and its key features to serve the complexity of its concepts in practice. The on-going discussion about teacher sessions or training in the traits of creativity may lay a great foundation to support teachers to acquire recognition of best practice relating to the different dimensions of creativity which may suit their contexts.

Theme 2: Creativity and pedagogical approach: different creativity in different subjects

This section includes an analysis of the use of creativity as a teaching and learning approach in early childhood education in Thailand. This was drawn sequentially by the guiding research questions as follows: RQ2: What types of pedagogical approaches and creative activities promote creativity/creative learning? What did preschool teachers report and present in the classroom, and how are these activities supporting children's creative learning and creativity? The data analysis showed that different activities may offer children chances to develop different elements of creativity, the creative process or creative outcomes. This section consists of six issues including (a) the change and challenge of formal to informal learning, (b) child-centeredness vs teacher centeredness, (c) the power of playful learning, (d) art-based learning, (e) science project experiment and exploration, and (f) creative teaching and teaching for creativity.

4.2.1 The change and challenge of formal to informal learning

Early childhood education in Thailand has been transformed gradually since the contribution made by the first Early Childhood Curriculum in 2003. This encompassed changes to pedagogical approaches, such as child-centred, play-based learning, active learning, and integrative learning, as a framework for early childhood practices. The curriculum indicates six main activities – circle time, free play, creative activities, game play, music and movement, and outdoor play – thus replacing the traditional methods that transmit knowledge and information via learning using books and worksheets. Linking this to the interviews, the responses of the teachers showed the changes enacted in these education reforms and it is believed that creativity has tangibly burgeoned in schools since then. In response to the research question, IQ1: 'After many years of your working experience, what do you think about how creativity plays an important role in the Thai classroom context?', class teachers stated that

Teacher A1 stated that:

> Creativity has been emphasised as significant in early childhood education a lot more in the last few decades. There were obviously changes and the creativity apparently has been encouraged much more. The curriculum has been focused more strongly on creativity. I started using the Curriculum in the year 2536 (1993). Then, the later curriculum in the year 2540 (1997) was the beginning of developing creativity and Curriculum year 2546 (2003) placed more importance on creativity in the learning standard… at that time, pupils had to do worksheets, such as matching, or do the work as per the teacher's instructions. But, I think this way[s] of learning is a kind of closed ended-work that does not support creativity as much. Later on, when the new curriculum had been used in the school as well as teachers having developed understanding [of] how to provide an effective learning approach in [the] classroom…Children are learning how to work better through more open-ended activities and they have the opportunity to develop more creativity.

Teacher B2 stated that:

> In fact, creativity has been acknowledged in early childhood education so far. But, it has been positioned as more important since the last curriculum reform. Before that, teachers got a fixed learning plan and most of the aims were to develop literacy and general thinking skills. In 2003, the Ministry of Education launched [a] new National Curriculum… It was the changing point as it allows schools to work flexibly and teacher[s] need to develop their practice to bring creativity in the classroom.

In the interviews with teachers, the respondents displayed a flourishing awareness of the essential importance of play among school educators and how it contributes to the distinct versions of education in the classroom activities. They agreed that the establishment of the Early Childhood curriculum brought attention to children's creativity and their learning and development in early childhood education. They explained that active learning, child-centred and playful learning, replaced the formal education style that focused on literacy or thinking skills only using books and worksheets. This was the turning point for the early childhood educator which asked them to seriously consider the child's learning and development and to

develop their practices to attain the new model of working. Schools have obtained the freedom to blend the proper strategy or guidelines in a way that suits the learners within the context of their communities. This shows that education practice has jumped onwards from traditional, formal ways of learning to employ features of informal learning and drive teachers to be active and change the environment in order to foster children's creativity.

In practice, the combination of formal and informal learning embraces a variety of approaches in terms of large group activity, creative activity and play activity. The formal teaching usually occurred at the beginning of the large group activity. It involved the direct teaching approach and goal-centred learning to achieve academic learning in circle time. The learning was structured within a sequence of teacher-led activities that focused on knowledge or learning concepts such as the date, time, the human body, the national flag, food or nature events etc. On the other hand, informal learning focused on indirect teaching and the accumulation of valuable expertise and skills rather than studying to pass the test or measuring learners via grades or ranks of learning. It is associated with the aspects of hands-on experience or sensory engagement that were linked to the child-centred approach rather than teacher-initiated activity. It displayed an effort to share ideas with learners that refers to verbal play, group inquiry, story discussion and mind mapping.

This matched the literature-based Approach in case A, through a process which aimed to develop a love of language, creativity and literacy learning. The learning and teaching started when the teacher read books for the children, telling them about the authors and illustrators. The children sat comfortably and listened to the story quietly. When the teacher finished reading the storybook, the teacher took the main role in giving information; posing the questions, comparing things and inquiring. At this stage, verbal communication is used as the main method in large group activity to transmit knowledge and help children to express their ideas and improve their capacity and inner self: their self-confidence and self-esteem. It started with basic questions which could be seen as closed-ended questions, then gradually moved to open-ended ones. For example, after reading the storybook, the teacher posed questions about the story. Teacher A1 posed the questions, 'What is the story about?', 'What happened in the story?', 'What did people do in the story?', 'What happens next?', 'How did they solve the problem?', 'What happens at home?', 'Then what happens?', 'What did the kids find in the

forest?', 'Who/what do you like most in the story?', 'What is the characteristic of each character?' et cetera. These questions often focus on the people, characters, and the facts from the story and give a lesson in literacy skills. They would then discuss characters and the story, and the teacher wrote the names of the characters, along with adjectives to describe each character, on some white paper. The teacher emphasised the language and literacy skills such as writing and the adjectives for each character: fearful, crying, smart, old, cruel et cetera (see in Picture 1).

Picture 1: Literacy learning in circle time

In this situation, the teacher led the class to fulfil the teaching plan, which was a fixed-goal association between the school curriculum and teaching practice. She took the main role in giving information, posing the questions, comparing things, and inquiring. Obviously, children took a role in obtaining information and posing some questions. They spent a lot of time discussing the knowledge and content of the learning areas involved in language, numbers, and details from the storybooks in order to fulfil the prescribed curriculum. However, the teacher often asked children to repeat basic information to check their knowledge and understanding: for example, 'What happened in the story?', 'What did the step-mum do?', 'Then, what did the father do?', 'What did the kids do?', 'What happens next?', 'How did they solve the problem?', 'What happened at home?', 'Then what happened?', 'What did the kids find in the forest?' et cetera. This fixed-goal learning ensures the teacher considers what the goals are and how to achieve them via closed-ended questions that repeat the details in the story. It focuses more on ensuring that all children have received knowledge or are checked for expected answers rather than stimulating leaners' thinking skills

or producing creative ideas. This reveals that the group discussion and conversation in between children and the teacher in large group activity was expected to be in the form of academic knowledge and language development rather than motivating creative expressions.

The informal learning was evident in the form of role play, hands-on learning, science experiments, or project work. The literature-based classroom and drama play were used to create a playful atmosphere and the amount of freedom, enough time and space made available for creative expressions. At the beginning, the teacher explained that the children were going to play using the Hansel and Gretel book. The teacher selected one child to narrate the story from the storybook and selected a few more children to act as the characters. She gave props such as clothes in blue (Hansel), pink (Gretel), red (stepmother), yellow (Dad), and black (the witches) to each child (See Picture 2). The children were interested in becoming involved in an activity and showed their excitement when they engaged in it. During the role-play, there was a lot of guidance and instruction from the teacher to control what the children were supposed to do. The children who were the audience were sitting and watching quietly while those children who were in the role play were smiling and acting, just as the teacher said. The role-play was repeated by several groups of children to circulate the participation among all the children. The atmosphere during the informal learning was mostly delightful, which helps children to develop leadership skills and self-confidence with joy.

Picture 2: Drama play in the large group activity

Evidently, the teachers made efforts to apply fixed-goal learning to informal conversation and involvement in large group activities. Informal teaching enables children to actively engage

and express their ideas during the activities. Instead of only passively receiving the information, children often get involved, through the activities, with enthusiasm and active communication with their peers. Teacher-child and child-child interaction creates social interaction, narratives and acting experiences where children are frequently employing creativity in pragmatic flexible situations. This flexible form of learning helps children to maintain their emotions and stimulate their imagination as well as support children to show positive emotions toward the activity and develop the confidence to share ideas. However, there was one interesting point about the overall atmosphere, which was controlled by the adults. The children's play was not spontaneous but was elicited from the outside. Children were allowed to choose to do or express the ideas as long as it was within the adult's boundary. In this case, it is doubtful how much children enjoyed playing activities when under the control of adults and whether the actors and actresses could express and discover their own feelings and actions if they were instructed rather than creating their own thoughts in such activities. This lack of opportunity for children to play with symbols and systems of representation and develop their own flexible and fluid thinking may hinder their capacity to develop creative expression and self-confidence. This is asserted in the discussions by Powell-Jones (1972), who noted that children have a natural desire to take part in pretend play but, many times, the teacher set and dictated the dialogue and the pace of movement and the dramatic expression. There are potential benefits of dramatic movement for creativity but children need to acquire 'a feeling of self-mastery' and obtain the freedom to pick different moves (ibid.) to show their inherent emotions and perform their original ideas.

Upon close examination, the curriculum notes the importance of creativity and the preparation of children for academic and future-life skills. The efforts behind the curriculum and from teachers to bring informal learning into the school setting over the last 10 years is evident. Notably, exercise books are no longer used as the main learning materials nor exams or grades of achievement. Nevertheless, there was a conflict with the formal learning, with its fixed goals and sequences, which could be seen as a dilemma in a real setting. Formal learning with fixed-goals aims to deliver identifiable and recognisable educational goals. It is characterised by learning objectives and a curriculum structure that create a highly structured set of learning arrangements. Meanwhile, the inclusion of informal learning involves a fixed sequence, starting with teacher-led activity and followed by group or individual work or play. Obviously,

there was much directed control and many classroom regulations. Children have the chance to volunteer to participate in activities, yet it is permitted only with some conditions set by adult or group agreement. Teaching restricts children's behaviour to within the frame and features lots of neatness and order through classroom management. Where there are lots of classroom regulations, children passively receive the information rather than exploring and developing their creative ideas. It creates a well-organised time and sequence of activities, yet sometimes it does not consider the creative or non-creative learning. This is reflected by the high frequency of a predominance of adults' roles but not much expression from the learners. Moreover, the academic goals seems to be an important variable in both formal and informal learning. Teaching and learning is associated with the achievement of the intentional outcomes for academic learning yet some unintentional outcomes are accepted. When teaching involves fixed structures and sequences, it leads children to spend time discussing the knowledge and content of learning focused on learning areas including language, science, and mathematics, and on the knowledge of social contexts in order to fulfil the prescribed curriculum. The tight structure for academic learning discussion did not give open opportunities for children to develop and share their original ideas. This description concurs with the work of Wood (2015), who analysed play in English education and noted that it challenges the educator to provide informal playful learning and ensure school readiness in young children. Indeed, a balance between the two forms of learning can enable teachers to assess playing alongside the other forms of learning. The educator needs to be aware of the proportions of formal and informal activity and that their role is as a facilitator rather than knowledge narrator. In the next section, the role of the teacher in child-centred and teacher-centred activity will be revealed, along with the underpinning processes and the role of teachers in fostering creativity in the classroom context.

4.2.2 Child-centeredness vs teacher-centeredness

The child-centred approach was noted within a set of core learning processes in the Early Childhood Curricula (2003 and 2017). The ideal of a child-centred pedagogy is focused on a competent learner who is 'resilient, capable, and confident and self-assured' (DSCF, 2007, *Principles into Practice Themes and Commitments Card*). This concept is underpinned by many educators such as Rousseau, Froebel, Dewey, and Montessori (1952), who indicated

that a child is an individual and independent learner. Famously, Froebel proposed a child-centred approach in his book *The Education of Man* (Wen, Hui, and Kay, 2011) and highlighted children as powerful learners. These ideas laid the conceptual foundation for children as active learners and assert that they learn best when they are allowed to play and manipulate their environment (Tovey, 2013), placing emphasis on the rights of young children in early childhood education. It alters society's attitudes towards children in order to suggest that the young deserve to have freedom to learn in an appropriate environment with the guidance of an adult: a factor which has been central to developments ever since.

Child-centredness has been defined as focusing on different aspects such as child's rights, needs and interests. It involves the concept that individual needs must be addressed in order to deal with choices in learning, and also focuses on the importance of baseline requirements to secure a child's wellbeing (Cooper, 1998). Child-centredness is seen as the approach through which learners influence the contents, activities, materials and paces of learning (Collins and O'Brien, 2003). This sits in opposition to the teacher-centred approach, an older style of instruction, wherein children 'sit quietly, passively receiving words of wisdom being professed by the lone instructor standing in front of the class' (Catalano and Catalano, 1997, p.1). Dewey (1921) observed the old style of education and described it by stating,

> The old education… may be summed up by stating that the centre of gravity is outside the child. It is in the teacher, the textbook, anywhere and everywhere you please except in the immediate instincts and activities of the child himself… Now the change which is coming into education is the shifting of the centre of gravity… the child becomes the sun about which they are organised. (p.35)

Thus, it seems that child-centredness motivates children to act as active learners rather than being passive learners who merely wait for adult support. This principle relates to the idea of the importance of revealing the hidden or secret competence within individuals. Partnership with teachers helps children to become unique and offers opportunities to develop self-determination and absolute capacity (Montessori, 1989). This is similar to Hewett (2001), who viewed the child as an 'active constructor of knowledge that is rich in potential' (p.96). Sargent

(2001) viewed child-centredness as representing a positive-image of a child who is capable of taking an active role in their learning and agreed with Dewey (1959), who pointed out the importance of individuality in the school curriculum and that learning should be selected by the pupils rather than the educators. Schirmacher (2006) also agreed that child-centred activities support children to become creative, original and unique, since the learning comes from within the child rather than being imposed by the teacher. This approach aims to provide open-ended plans to support children's backgrounds and to meet the children's needs and interests that are formed through trust in and positivity towards a child's capacity.

In the classroom, many observations demonstrated that the child's interest and participation were considered a central part of learning activities. For example, in School B, teachers discussed with children which topics they are interested in; the children posed different ideas such as rocks, a market, a temple, fish and an air-conditioner. Once the children's interests were identified, the teachers created some lesson plans and started the initial investigation for the projects. Most children had experience of going to the temple festival and riding a bike at home and had a good level of knowledge and understanding in this area. Teachers usually chose the topics which accorded with children's interests and planned the activity relating to children's everyday lives. Such strategies serve the learning objectives and teach a range of knowledge and thinking skills.

Moreover, teachers sparked the children's imaginations via storybooks before discussing what they were interesting in doing. Once the children's interests were recognised, teachers and children decided upon the interesting points for further investigation and made initial notes such as a diagram or learning map. The discussion between the children and the teachers was flexible and restorative through on-going dialogues in line with the children's attentions. This formed the basis of open-ended learning with control of the interaction shared between the teacher and the children that originated the ideas. The adjustability of open-ended learning enabled children to engage in and challenge themselves with the creative learning and helped teachers to observe and move on or slow down and do more or do less in the activity. For example, the beginning of the literature-based approach in case A started with the children's interests. It gave the children the intrinsic motivation to take part in sharing what they are interested in learning about. The teacher read a storybook and observed children's reaction in

large group activities. Afterwards, children took part in a vote and chose their favourite storybooks, themes of learning and activities. This showed that the child-centred approach represents a positive image of children who have rights, freedom and are capable of making their own decisions in their learning. The strategies that were ‘pupil-driven’ focused on the reverse design of pupil’s background knowledge and were linked with the search for meaning in order to boost a real and deep understanding.

On the one hand, nevertheless, there was teacher-led activity that focused more on what the teacher had planned and expected rather than children’s uniqueness and their ownership. The sample of this issue is when teacher A started the class by singing the ‘Hello song’; the children sang along until the end. The teacher then asked a few children to come in front of the class to be the ‘dancing leader’ for the day, while the rest of children sat on the floor and mimicked their movements, following the leaders. At the same time, the teacher tended to ask the dancing leaders to express a new and unique movement each day. She often said, ‘We have made this move for several days. Can you do a new, different dance?” to the child. The reactions of children were soft and slow. Some of them changed their moves, but it was unnatural and inactive.

Picture 3: Greeting time in classroom A

As observed, there seems to be a lack of opportunities for children to express their original ideas. Teachers wanted to help children to develop leadership skills and self-confidence with joyfulness. However, the comments of the teacher turned out to be the judgment of her

expectations instead of supporting the children's creative expressions. Besides this, it is doubtful that the 'dancing leaders' of the day could develop new or creative movements if they were, like the rest of the children, taught to be followers for most of the previous day. Therefore, it would be better if all children have a chance to join the group activity together. A child at this age should have a sense of childhood and be able to express their feeling and accept the feelings of others. The teacher could provide real, open opportunities for all children to share their thoughts and express their actual feelings through the initial activity of the day. In fact, the activities were designed to blend activity into the classroom to activate children's social and thinking skills; however, the formal way of teaching whereby teachers control children's behaviour remains strong in the classroom.

The ideas of child-centeredness requires adult-supported activity, which refers to a group learning experience wherein teacher and children work to construct the knowledge and understanding together. This is a mutual give-and-take process between teachers and children. However, the observation showed that while the teacher offered some choices in learning, they tended to influence or have authority over the processes of the learning and children's actions. The teacher made an effort to share the space of learning with the children; the traditional method of teaching involved implementing the process of curriculum practice and the content and areas of learning were carried out as they appeared in the teaching plan. For this reason, the child-centred approach, which is ideal for developing creativity, was implemented and the children's autonomy in the learning was implicit.

It is apparent that the early childhood education and the school curriculum documentation tries to reflect the pedagogy and the positive image of the child, emphasising the child's needs. The child-development aspects are primed to set self-initiated activities in order to motivate children's natural powers of curiosity, investigation, discovery and playfulness. The process of the child's participation mainly involves the child's interests and focuses on the participation of children to share ideas, yet it also offers engagement for discussing and building on the open-ended conversation to support their creativity. The high status of the child's participation is an interesting point in learning but the low status of child-initiated activity has made the child's learning vulnerable and affected their creative development. For this reason, child-centred approaches which are ideal for developing creativity were not fully

and practically implemented and the children's autonomy in learning was, at times, actually absent. Children's backgrounds, needs and interests were recognised but the role of the class leader played a big part in holding the main power and ownership over child's learning. This preoccupation with the teacher-initiated approach revealed a situation characterised by the control of the teacher over the child, which is implicit rather than explicit (Bernstein, 1975). This implies that teacher-centred approaches are actually predominant, that children do not have much power over what they select, nor over the structures and time-scales of their activities. This has caused long-standing arguments about the children's interests, child-initiated versus teacher-directed activities and freedom versus structure, which contains a fundamental opposition instead of a synthesis of pedagogical approaches.

To summarise, the concept of child-centred approaches was ideologically preferred and recommended yet was not universally followed in practice. The pedagogical approach can be varied and polarising at the same time. It was suggested by Craft (2003) that schools and teachers have to realise the opportunities for pupils to work creatively rather than following adult control. Teachers need to extend and develop their understanding about the child-centred approach, that it is not linked merely to a child's interests, needs and background but also the whole process for each child in order to develop their creative potential. The positive image of the child and the disposition to adopt child-initiated learning should run through 'free play and free choice, discovery and exploration', which provide the foundation for constructing meaning and understanding for learners (Kerry, 2015, p.46). These will be essential factors in combining child-initiated and teacher-initiated activities and supporting teachers to provide enhanced preschool practices.

4.2.3 The power of playful learning

Play is regarded as a natural activity and as a positive method of children's learning. From the historical view, Plato stated 'let your children's education take the form of play' (Eberle 2014, p.11). In modern times, the Ministry of Education (2012) has noted that play is a natural way to stimulate children to develop creativity

From the cultural perspective, playful learning may take various forms in different places. Children perform in cultural-specific domains and engage in activities and values that are vital

within explicit contexts. In comparison to the research setting, playful learning has been incorporated within the practice to promote children's creativity, since the curriculum reforms in Thai education since 2003. Playful learning was blended into the large group activity to offer children the chance of engagement and free space to reflect on their way of thinking and seeing the world. This implies that playful activities are key elements in the classroom and are the foundation to prepare children for academic and future-life skills. This focus has transformed the learning approach away from merely building knowledge and has brought a new awareness of play, active learning and hands-on experience as developing learners' understanding of their social, linguistic and thinking skills and daily routines. This is supported by Piscitelli (2000), who noted that playful learning refers to self-directed learning designing materials for children's learning and to the tenets of the interactive technique of active learning.

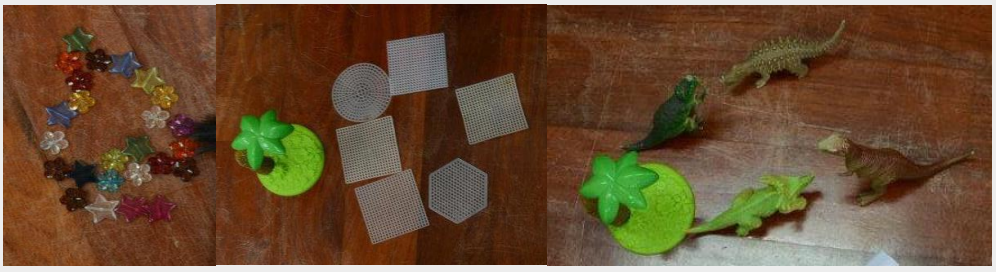
In these settings, creative play is frequently used as a mode to conduct children's curiosity, enthusiasm, exploration, imagination and creativity. It appeared visibly in many observations and covers active play, hands-on experience, exploration and experimentation within the holistic pedagogy. For example, during observation 1, in case B, after learning about the symbols of the school, the teacher posed questions such as 'How can children make a symbol of the school by using different items in the classroom?' The teacher gave examples for children that they might use, including blocks, dolls, pictures or any of the toys in the play corners. The children chose a variety of items to make a house. Children took different items from the play corner; they sat on the floor and started making the house. The observation showed that children created pieces during small group playing and, in the observation, each child tended to choose their favourite toys and represent their home with different things and in different ways.

'Observation 1: School B: Symbol of the school: how children could represent the school by using different items in the classroom

- One child used clothespins to make the house. He said, 'I use this clothespin because they are triangle shaped like the roof of the house'.
- Another child said, 'I am using the tiger, just put two of them together to make the roof, and they can protect people in the house'.
- The third child said, 'I'm making a house from ice-cream sticks, and there is little chimney on top'.

Another group of the children was sitting together. They were making their houses from different materials.

- One girl said that, ‘My house is a different colour; I love to make it big and tall’.
- Another child showed their house to their friend: ‘I love this butterfly; I want to have a little garden with lots of flowers. Then, I can have beautiful butterflies in my house.’
- Another girl said, ‘My house is pink; do you like it?’
- One child said, ‘You use telephones to make a house?’
- The girls said, ‘Yes, I love the pink colour; I will make two floors in my house’.
- Another girl showed her friends: ‘My house is shiny, it made from the star’.
- A boy who sat next to the girls said, ‘My house has a tree’
- Another boy said, ‘my house has a lots of trees and also dinosaurs. It’s strong. I will keep it in my house’.



Another boy sat next to the group of children was quietly making a house from pencils. They work very well and happily with their friends.’
(Monday 16 June 2014 10.15-11.00a.m.)

From this observation, the children’s play in large groups was pleasurable and peaceable. The atmosphere of playful learning resulted in challenge and involvement, which enabled children

to concentrate and be inspired. Children are naturally curious. They explore traditional toys, using the objects to represent something else, and share their excitement and ideas from their prior background. For example, the children made a symbol of the school based on their personal preferences, so that they made the shapes from different toys such as dinosaurs, pink telephones, pencils or a butterfly mirror, et cetera. Their personal engagement encouraged intellectual creation. Children imitated the shape of a house and translated their experience into action and tried out the ideas that they are not yet able to engage with in reality. The values of play and representation seem to be a mental operation in which the individual uses a variety of representations of objects or events in real life. In addition, in the selection of the objects, the teacher encouraged the children to experiment and express their ideas by providing them with freedom, a secure environment and ample time for creative representation. He guided and pursued children to use a different choice of items in order to balance novelty, uniqueness and steadiness. Uniqueness is obviously presented in all the children's work. Novelty seems to be present in both outcomes and the narration of the children across the groups. Finally, steadiness links the uniqueness and novelty with the concept of learning. The openness of this form of learning and the variation of objects in play cultivate a choice in children and chance an opportunity to use objects to create something new and obtain independence, to take on an imaginary story to reflect their creative ideas.

Furthermore, free play was evident in many classroom observations. Children had the chance to interact and play with each other. Teachers played roles of observing and facilitating with a little help. This basically refers to free-flow play – informal activities directed by children. Free-flow play was explained by Bruce (1991) as 'wallowing in ideas, feeling, and relationships… and the application of developed competence, mastery control' (p.60). Children have chances to interact and play with each other. They spontaneously expose and originate ideas and show strong motivation and concentration when communicating, bargaining and solving problems. For example, in the sensory corner, children manipulated different types of toys and objects. They act out their feelings and actions or take the role of someone or something else. This is in agreement with Craft (2005), who noted how free play can support children to explore and inspire imaginative thinking and develop creative behaviour.

Observation 36: sensory corner

Three children (J, D and B) are playing with natural seeds and pieces of woods in the sensory area. They start bringing the plastic and wooden kitchen utensils onto the table.

- Child J: Sister, can you help me to make boiled eggs?
- Child B: Yes, sister, I'll bring you more water and I'll make some tea
- Child D: I'm making cucumber.. carrot stir fry
- They are making food.
- Child B: Here is some soup
- Child D: Huhh, that's a really huge spoon
- Child B: Soup spoon is supposed to be big like this
- Child D: Oh, no more rice
- Child J: Ok, we can cook more rice
- Child B: J, this is your soup
- Child D: This is egg juice
- Child K: What's egg juice?
- Child D: It's yellow juice
- Child J: I think we should change juice
- Child B: Which one?
- Child J: I need herb juice
- Child D: Which juice you need?
- Child J: Kek-huay..
- Child D: Wow! I like it, ok
- Teacher: Where did you see Kek-huay?
- Child J: Uhmm, Kek-huay is yellow juice, it made from flower, the tastes is sweet but it's good for health
- Child D: I'll buy more kek-huay flowers for you
- Child J: Ok, just go to Chinatown, it's cheap
- Child B: Should we tidy up our house?
- Child J: Yes yes, firstly, we have to tidy up the dolls shelf
- Child B: Ah, I'll build house for little deer for Santa
- Child J: Haha. Santa?
- Child B: Yes, Santa will come today when we sleep in the afternoon
- Child D: Ahh, I'll make a welcome drink for him and he'll stay with us forever



(Observation in School A 6 February 2015 9.30-9.50 a.m.)

The observation showed that the sequence of role-play exhibited the sequence of play and representation. Imaginative play seem to be an externalisation of children's imagination into action and speech (Vygotsky, 1978). This can be explained by the notion that children are capable of linking their imagination to reality and developing their creativity through imaginative representations. Children took up and reshaped their life experience and used different objects to stand for the places and stories that they know through small group work and conversation. This helps children to see the places, things and events in new ways and generate the invisible ideas linked to their true experiences.

The relationship of play and creativity was obviously linked to the open-ended activities that sought to open wider possibilities into the children's experience. The interaction between child and child means more liveliness and greater flow of play. Playful learning offers openness, which is one of the key features that allows challenge and involvement, which in turn develop children's creativity. It is related to the performance of imagination, which can enhance and improve children's knowledge and experience, even though creativity may lead the individual away from reality, and the level of child development is demonstrated in the mental functions that are formed as a consequence of already completed development cycles (Vygotsky, 1978). This coincides with Lauer (1994), who noted that variation of thinking can bring dynamism add onto the learner's capacity and help children to maintain their emotions and stimulate their imagination. The process of play shows the eventfulness, connection and positive energy in the classroom setting that offers space, time and the chance for children to explore and dig deeper into ideas. Such processes enable children to think beyond everyday realities and 'create potential spaces, potential selves and different possibilities for action' (Wilson, 2014, p.48).

4.2.4 Art-based learning: the traditional platform for creativity

Art was additionally seen as a significant part of culture and as a source of creativity (Montessori, 1952, Craft; 2001; Bruce, 2006). The process of engaging in art activities enables children to take part in activities as individuals. It provides a chance for children to build up their identities and uniqueness though their work. Open-ended play helps children to express their emotions and thoughts and helps them to learn about positive and negative situations, as

well as aiding them to understand, manage, and accept them (Wilson, 2014). This is consistent with advice from the National Association for the Education of Young Children (NAEYC, 1999) and the National Council for Accreditation of Teacher Education (NCATE, 2001), who state that art helps children play with ideas and to use objects and their imaginations to make one thing stand for something else, and thus to develop creative expression.

The relationship between art, creativity and culture is visibly illustrated in the curriculum and lesson-planning documents, all of which highlight creative activity, most obviously in visual arts such as drawing, painting, printmaking, collage, textiles and crafts. This accords with many theories that identify art as a significant part of culture and a strong source of, and route for developing, children's creativity (Montessori, 1952; Craft, 2001; Bruce, 2006). Making art develops cognitive functioning that helps people to interpret abstract concepts through aptitudes such as curiosity, wonder, enthusiasm, exploration, inventiveness and imagination (Gardner, 1993; Beetlestone, 1998). This concurs with the responses from the class teachers, which highlighted art as one of the primary activities for fostering children's creativity. When the teachers were asked, IQ3 'Where is creativity in the classroom?', they noted that creativity is apparent in different kinds of activities such as visual arts, music, singing, communication and play; however, they indicated that art is the activity most commonly used to develop children's creativity in everyday routines.

The conversations moved to 'How do you support creativity through art activity?', and the teachers noted that art activity is fun and that it motivates children, touches their emotions and leads them to a sense of aesthetics, the imaginative world and hands-on experience.

Teacher A1 stated that:

> These days, creativity has no limit. It can be in any activity: art, playing, singing or music... but art is naturally adorable to children and art work is a thing that stands for something in children's minds. Children develop their creativity through fun activities such as drawing, colouring and painting… In the classroom, children have free time to draw their art work before and after the main activities. I prepared paper and crayon for them to use at any time.

Teacher B1 stated that:

> It is about arts. It is the time that children have freedom to express what is in their head or mind. It [is] linked to something they love… something they want to do… or their inspiration. For example, this morning, one child made a drawing about 'the train went along the heavy rain with a storm and thunder'; she showed the picture to me and told a long story with excitement… the drawing and her explanations show her background, experience, her thoughts and what a child is interested in.

From the interviews, it is clear that the teachers see art as one of the main actions taken in the classroom to develop children's creativity. They noted that art enables children to develop their emotions and thoughts and highlighted the process of representation as the way to reflect the feelings and images in the children's mind. This is consistent with the view expressed by the wider literature, wherein it is argued that children use their prior experiences, their knowledge and their imagination and aesthetics to create multiple forms of art representations (Beetlestone, 1998; Duffy, 2006). By creating artwork, children engage with images and concepts that link to others who share a culture or the same 'imaginative universe' or 'world of possibility' (Dyson, 1993, 2003). From this point of view, art is the accessible platform from which to reach creativity and generate novelty and originality that allows individuals to convey their inner thoughts and emotions and create a representative world and to shape, reshape, review and revise a human's hidden lives, which are related to the world around them.

In the classroom, the activity frequently started with a group discussion and art-based learning was used as the way to reflect children's knowledge and thoughts. The storytelling, as an introduction to art activities, involved children gaining new information about flowers and being offered the opportunity to be inquisitive about the story of the flower that they like. Teaching then focused on the art technique stimulation, which involved imitative work that aims to pass on a basic knowledge of art materials and techniques.

The context of the observation – the art table in the classroom – was set up on tables of between two and four activities around the classroom. However, in both cases, the common and most frequent activity that children engaged in was drawing. One of the two to four tables

is set with blank paper (or recycled paper) and crayons or coloured pencils daily. This aims to provide the space for children to create symbolic representations, make new connections and produce new ideas on a daily basis. Many observations demonstrated the liveliness of children when they were drawing pictures either with or without instruction. For example, during observation 31, children were observed drawing pictures with instructions to draw 'what they do at home', and observation 32 was when the children were drawing freely.

Observation 31: Drawing with instruction 'A good child: what is the good thing you have done?'

Five children (B, D, P, JJ and G) sat on the art table with their notebook and crayon. They were drawing with only little conversation to each other. They draw pictures while having a little conversation.

- Child D: I am drawing a picture of me helping my dad watering the garden, and yesterday I helped mom to tidy up the garbage
- Child B: I also helped my mom washing dishes; I can clean the dishes now (smile)
- Child G: Look at my picture, I was helping mom dry the clothes
- Child P: I'm making a flower. Here is the water pot. We need to water the flower every day otherwise it is going to die. I need to put on fertiliser
- Child G: I've got a goose at home
- Child JJ: My flower at home is blooming
- Child P: I've got a small bush too. I planted it with my mom and dad
- Child JJ: I've got a Furby
- Child P: I have a Furby too
- Child B: Here is my car, my motorbike
- Child JJ: Really, but I have got a grasshopper

For 15 minutes, the children focused on their work. They drew pictures with some conversation. When they completed the drawings, they were asked to describe what they had drawn. The teacher wrote the names of the pictures and the children's descriptions with the date and the children's names. Children, then, put the notebook back in their folder.

(Observation in School A Monday 19 January 2015 9.00-9.50a.m.)

Symbolic representation through drawings is the unlimited mode of children's creative expression (Kellman, 1995). In the first sample, the drawing represents what children did

when they were at home such as gardening, tidying up the garbage (Child D) and washing clothes (Child G), while some of them created pictures of things in the house, such as flower pots (Child P). This vividly showed art as a fundamental form of children's expression and communication (McArdle and Wright, 2014). This is compared to the second sample below, in which children tell the story of their interests in places, events or objects, such as the picture and story of an alien from the moon (Child D), the snow and the Himalayan mountains (Child J), a star and an airplane (Child B), a helicopter (Child G), a camel (Child T), et cetera.

Another observation is that the children learned to draw their own pictures from different shapes (see in observation 32). Children were given the paper and spent their time creating their own drawings. The teacher observed them and found that they made very different pictures. Some of them drew the bird as the sample picture but many of them drew different pictures, such as a girl, a lion, a dinosaur or a house.

Observation 32: Free drawing

Six children (D, WS, J, B, T and G) sat at the art table.

- Child D: I am drawing the aliens
- Teacher: Where does the alien come from?
- Child D: From the faraway earth. Here is the moon.
- Child WS: 'I got the heart; I got the heart'
- Child J started drawing a small blue circle on the top half of the paper.
- Child J: This is my Christmas tree, it's in red and there is snow here
- Teacher: Where does the snow come from?
- Child J: Uhmm.. The Himalayas
- Teacher: Where have you seen snow?
- Child J: In T.V., in movies
- Child B: I have a star and an airplane
- Child G: I have a helicopter
- Teacher: How many do you have?
- Child B: I've got three airplanes
- Child T: I have a big cloud and one camel
- Child J: Here is a pink flower
- Child G: My picture, I am running on the grass, at the side of the pool with a butterfly
- Child T: 'And this is a cactus, there are only sand and cactuses; there is no water in the desert
- Child G: Oh, but I have water, would you like me to share it with you?
- Child T: No no; cactus doesn't like so much water
- Child G: But I like water because I can swim in the pool
- Child T: Me too

(Observation in School A, 21 January 2015 10.00-9.50a.m.)

From this observation, it is clear that the children displayed the fundamental processes of comprehending symbols, systems, and their relationship and fluidity to convey and communicate their ways of thinking and being. They use materials and their imaginations to create artefacts that stand for their image of their mind (Beetlestone, 1998) and develop their creativity by expressing and representing their ideas and emotions as well as interpreting abstract concepts through their personal qualities such as curiosity, enthusiasm and inventiveness (Bruce, 2004). It was illustrated during both observations that children have the purpose to convey their knowledge background and personal interests to make unique drawings of their own consideration. As Wright (2010) noted, there is a link between art, creativity and symbolic representation as 'every instance of representation through art is new and creative… children never just mechanically apply rules when they make an artwork… This is why composing through art is such an important and fundamental form of creativity.' (pp. 2-3). This is also asserted by Cox (2005), who emphasised the constructive process of drawing that empowers children to create symbols and order that reflects their experiences and personal interests.

On the other hand, different art tables offered different levels of playfulness, freedom, inspiration, enjoyment and self-awareness for the children. When it was time for an art activity, the children were fond of engaging and chose their preferred activity and then moved around to the other art tables until they had completed all the tasks for the day. This included creative experiences through action, which is the procedure of intellectual development that supports other forms of thinking skills (McArdele and Wright, 2014). The play-oriented

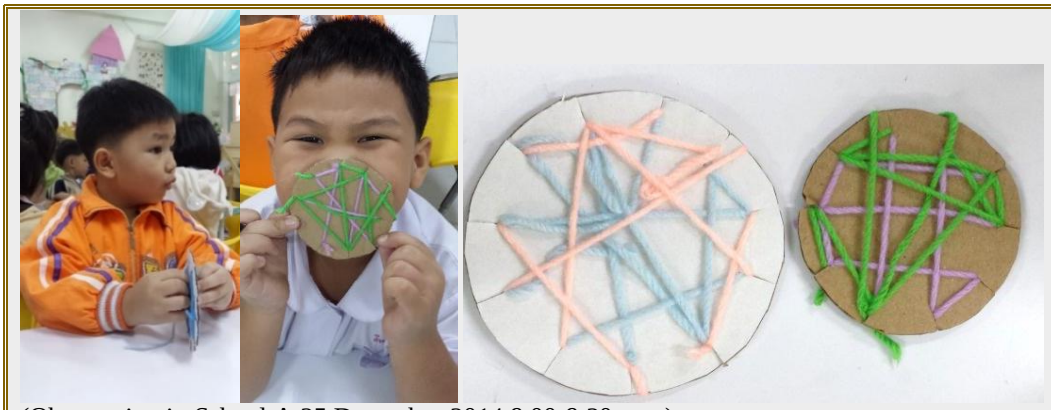
composition of art enabled children in a broader sense to create various forms of art, which is the early stage of creative development (ibid.). One of the art teachers agreed, noting that,

> Creativity is about art. Art is about play. And play [is] link[ed] to creativity and other thinking skills. It [is] also related to beauty of things... In art children will touch, feel, and smell natural objects, recycle items, or use their fingers, hands, or body to create artwork.

At this point, the importance of art and creativity involves learning through play, since they share in common symbolic representation, imagination and the freedom to cultivate creativity. Active art learning, such as painting, playing with colours, making mobiles, creating a Christmas tree or playing with glue, were set as choices in the classroom. The wide range of artwork gave options for children through which to reflect their ideas and interpretations (Bresler, 2002). Slightly different from drawing, making craft is not only related to the reflection of prior knowledge and creative representation, it offers extra engagement for children to play and interact with their peers. These aspects of creativity take art as a more creative expression, and give significant space for children's constructive thinking and to connect imagination to reality. This can be seen in observation 34 in the following sample:

Observation: 34 'Making New Year decorations'
The teacher gave a small piece of cardboard in a circle shape and knitting wool to the children. They were inspecting the round-shaped paper and choosing knitting wool in different colours. Two children were chatting about their opinions of their artefacts.

- Child A: Mine looks like a star, a shooting star
- Child B: I think it might be a Christmas ball
- Child A: This is very easy, mine is a purple star
- Child B: 'Is it a purple star? It looks like a tortoise shell
- Child A: Do you really think that? I think it's beautiful.
- Child B: It is so funny, look at this; you just put it down on the floor then you can play like the tortoise is swimming
- Child A: Hahahaha (he laughed a lot)
- Child B: I will finish this and go to play in the block corner. (smile)



(Observation in School A 25 December 2014 9.00-9.20 a.m.)

From the observations, the dynamics of the artwork revealed that the interpretation of the children's engagement seemed to go beyond symbolic representation to expression through their artefacts. Throughout the process, the communication between the children and their peers led to a meaning-making experience that contained transformation of ideas. Children experimented with the materials and their thoughts through language. These findings echo the work of Dewey (1988), who noted that art helps children to develop sophisticated modes of thought and engage with symbol-making and imagination in order to think beyond reality.

Many observations demonstrated that art activity was used to develop meaning-making, self-expression, imagination and a sense of aesthetic through creative artefacts. (See more in 4.3.3 Engaging with art tools, colour and materials that foster creativity). Learning art was set either with or without instruction. The teacher played a role in teaching art techniques and demonstrating how to complete the art activity each day. The children demonstrated pleasure and created meaningful artefacts with teachers and peers. In terms of culture, children used art to develop their language use and self-expression. This is obvious when children create artworks under instruction. The children told the story of 'A good thing you have done at home', such as washing dishes, drying clothes, taking care of her flower pots et cetera (see on page 165). This displayed the importance of art when used as a technique to reflect children's creative thoughts as well as their morality. Experiencing with natural and homemade objects, such as leaves, vegetables, seeds, and rocks, can help children investigate the properties of the objects and acknowledge the utility of each object for use in usual and original ways.

In summary, the format of art learning offers plenty of free space for children to engage in activities with a wide range of play items and materials, as well as, developing their communication, bargaining and extending their ideas with people around them. This confirmed that art activity is the universal platform for children to express and develop their creative thinking through object construction, symbolic representation and imaginative conversation.

4.2.5 Science project: the new creative pedagogy

Science projects are embedded across the curriculum since they are seen to benefit children's thinking skills and improve the understanding of the cause and effect of the real circumstances and the natural phenomenon and ways of life; they can inspire children's creativity (Early Childhood Curriculum, 2003). This concurs with Armga et al. (2002), who noted that children are innate scientists since they have an inherent sense of curiosity to play. Science motivates children to gain new information and integrates their imagination through play and exploration. The process of engaging in science stimulates children to inquire, observe, formulate hypotheses, and explore conclusions (Powell-Jones, 1972). Scientific process also helps children to develop creative thinking skills through observation, communication and analysis, connects prior knowledge and formulates novelty, originality and creativity.

Science in real settings seems to be present within both lesson plans and actual practice. In the classroom, science activities can be seen as simple and fun activities for children, such as observing the weather, investigating things in the garden and playing with basic chemistry in the kitchen. Teachers usually choose topics which align with children's interests and plan an activity that relates to children's everyday lives. Children undertake various activities such as dramatic play, shadow play, puppetry, painting, drawing, sculpturing, ceramics, dancing, music, construction and writing. The children are thus surrounded with professionally competent people and are rich in materials within a high quality environment. Often, scientific process is related to risk-taking, trying out, contribution and meaningfulness in a child's learning procedures. This fits with one observation from when the teacher gave a task to create motivation, contribution and meaningfulness in science projects by using open-ended questions to provoke children's ideas. For example, teacher A1 planned to plant vegetables in

the school garden (as shown in Picture 4). Children started learning about the vegetables and compared different kinds of vegetables such as red onion, pak choi and morning glory. One child asked, 'which veggies grow fastest?' The teacher did not answer the children directly but, rather, she challenged them to find out. Children made guesses about the experiment. Each group predicted the time of each vegetable's growth (which one was faster or slower). They then started the experiment. During the week, the children observed how well the Pak-choi, red onion and morning glory grew. At the end of the experiment, the results showed that the red onion grew in a week while the Pak-choi and morning glory took 3-4 weeks, and the children drew pictures to make a record.

Picture 4: Exploring in the garden

The observations demonstrated that the science experiment established logical thinking, making connections and giving reasons to infer actions to generate new connections. The child posed the question of 'which vegetable grows fastest?' and the teacher instigated further investigation. Children showed their excitement and curiosity about the process of experimentation. They were motivated to become involved and eager to try out different predictions and discover findings on their own. They listed many hypotheses based on their background knowledge. Children gave their opinions and predicted, 'What would happen if…' and 'Why?'. The questions referred to the key feature of possibility thinking that is associated with convergent thinking (looking for the right answers) and divergent thinking (finding the manifold possibility) that helped them to widen their viewpoints and investigated possible answers by exploring and gaining new information. These open-ended questions bring creativity into large group activities and support children in exploring and showing the

evidence of flexibility and novelty in their work. Making hypotheses and trialling them clarified the desire for new experience by using unaccustomed approaches to let children construct new ideas and knowledge on their own. Moreover, thinking about problem-solving enabled children to observe the situation, recall their prior experiences, and use their imagination to develop their ideas for further exploration. Such projects support children to feel free and be sure that there are no right or wrong answers and to take part in new creative thinking and ideas.

In addition, the combination of science and creating artefacts also helps children to explore and record their thoughts and passions. This can be seen in interactive experiences that help children get involved and actively participate in the activities instead of only passively receiving the information. For example, in School B, the interactive experience involved a certain amount of risk-taking and trying out. Children often get involved in the activities. This obviously showed in the activity 'Windmill Making', which was part of the 'Toy' theme. Day 1 started when the teacher and children discussed which toy they were interested in playing with and learning about. Most of the children voted for the windmill. On Day 2, the teacher and children brought some small windmills to the school and they discussed the shape and properties of the windmill (as shown in Observation 24). The children then played with the windmills; some of them blew on it and some of them carried the devices and ran around. At the end of the activity, the children posed the following questions: 'how do windmills work?', 'can we make it?' and 'how can we make it?'. The teacher noted the questions on the board. On Day 3, the teacher and children analysed the properties of the windmills by unfolding them. The children were excited and said 'wow, it was unfolded' and 'that's the big paper' when the teacher unfolded it. Subsequently, the children moved into small groups to make their own windmills and the interaction below took place.

Observation 24: Windmill making

- Girl P: Shall we make a dot on the windmill. Dot with lots of colour
- Girl B: 'Yeah, we can. Make lots of dots and we can make some ladybirds on it
- The children were laughing together.
- Girl P: We can make a ladybird, ant, and lots of bugs.
- Girl B: Haha, I will bring them to the garden. Our windmill will be the fastest


Another group of children were chatting about their windmill.

- Teacher: How do you want to colour your windmill? Have you a design yet?
- Girl A: I want to make a rainbow one, to put lots of colour in here
- Boy T: Then, we need to make a block and we can colour a lot
- Teacher Do you need my help? Shall I draw the line for you?
- The children nod their heads and said 'yes'

The teacher draws a line from the centre point to the edge of the paper. Each child colours in each block. They have only a little conversation since each of them is concentrating on colouring in their part.


Another group of the boys were talking about their work.

- Teacher: What are you up to? Is everything Ok with you?
- Boy P: Yes, I am making Ultra Man!
- Teacher: Great, and what about the others?
- Boy T: I will draw Spider Man and Ant Man. I've got it at home. Woo
- Boy B: 'And here, I got a space shuttle, a UFO'
- Teacher: 'Good work everybody. Call me if you need help when you finish'



After colouring, children cut and assembled the windmill with help from the teacher. They had a short rest before bringing the windmill to play with in the playground. At this point, children showed their enjoyment and a pleasure in the achievement by chatting with each other and saying things such as 'This windmill is flying so fast, Brooo!!', 'Yeah, it works. We can make it' and 'Now we have a lot of windmills for everybody'.
(Observation in School B 24 July 2014 10.00)

As observed, the children exhibited active dynamism and liveliness in leading the group, playing games or figuring out the issues. The children explored and experimented with the properties of the objects and events. The classroom atmosphere was purposeful, easy going and light-hearted. The class teacher introduced the class with the learning content about the windmill, then the children played and experienced fun and enjoyment. The process of this activity allowed for playful exploration and investigation of the objects, allowing them to develop their powers of observation, negotiate with their peers, and create and interact on their own product. This supports children to become flexible, adaptive and deal with the different challenges and problems. Indeed, the integration of play into the classroom demonstrated the complexity and challenging situations which support the natural disposition of early childhood (Broadhead and Burt, 2012). Children often showed that their knowledge was formed from different parts of their lives, including home-based preferences, cultural routines, media, hobbies and other everyday activities. This stimulated the flexibility of thoughts in order to transform the internal ideas and external objects or events through the learning tools and resources.

Overall, we see that creativity in science is related to intrinsic challenge, involvement, contribution and meaningfulness in a children's learning processes. The process of brainstorming allows children to bring their ideas to the group work. However, challenge, motivation and creativity happen in their daily routine, occurring within the parameters set by the teachers. Teacher A stuck to the allotted time and felt that academic learning could present more or less of a challenge to the class. Similarly, teacher B mentioned the balance of time management, and the importance of work and play in the daily routine that influences the space and time for creativity in the classroom. Noting these statements, we may observe that the amount of academic learning and time management in the classroom seems to have been altered to allow time for creativity. When the teacher placed emphasis on learning content and spent a lot of time focusing on such content, the form of learning was fixed as a goal with little chance for creativity. Indeed, teachers seemed to know the importance of overcoming the obstacles to bringing challenge and creativity; yet, the actual practice seems complicated and, at times, variable. While teachers need to provide learning that reaches the curriculum objectives, which tend to be a fixed form of learning, they also need to cultivate creativity which thrives within flexible conditions. The attitudes of the teacher towards the importance

of creativity and the knowledge in blending challenges to encourage creativity is personal, but when committed to fully it can be a powerful way to promote creativity in the classroom.

4.2.6 Creative teaching and teaching for creativity

Looking at teaching styles, creative teaching is seen as a key component in fostering children's creativity. It seems to be the key to the heart of all good practices, and offers 'strong motivation, high expectations, the ability to communication and listen, and the ability to interest and to inspire' (NACCCE, 1999, p.95). As creativity cannot be taught by direct instruction, teachers are responsible for framing the variety of techniques for encouraging creativity in the classroom. Teaching creatively and teaching for creativity have been critiqued as an alternative choice to cultivating creativity, freedom and authority. The strategies have been differentiated in terms of teaching's aims and techniques. Creative teaching has been acknowledged as the technique that involves using imaginative approaches, making learning more interesting, and being more effective. Teachers need to combine learning content and techniques in order to stimulate curiosity, self-esteem and confidence and to deliver learning results. Teaching creatively is useful in illustrating both know-what and knowhow in many disciplines such as science, mathematics, and social or linguistic activity. Nonetheless, Craft, Jeffrey and Leibling (2001) argued that in creative teaching, strategies themselves might not work in developing creativity at all times. They stressed that the techniques cannot be used merely to ensure that the learners develop their creativity throughout learning, as it is focused on efficient teaching rather than creative results. This strategy is associated with forms of teaching including encouraging, identifying, fostering, challenging and reflecting the wider contexts of values. It aims to facilitate learning for creative learners, and ultimately encourages the creative individual to investigate, explore and discover their creative potential by themselves (Craft, 2003).

As observed, teaching for creativity is associated with teaching creatively; it appears in literacy, music activity, hands-on experience, and arts and crafts. Many times, creative learning is most likely to be cultivated in a setting in which the teacher's creative teaching is appropriately provided. Children are engaged in imaginative activity with a sense of excitement and wonder when the teacher sets the learning atmosphere to encourage learners'

self-belief and a self-image as creative learners. This might suggest that children develop their creative abilities when their teacher has obtained creative skills. This coincides with the observation when teacher B1 encouraged live-story learning to capture the children's concentration before identifying the problem-solving opportunity to motivate the children's creative solutions (see observation 16).

Observation 16: Storytelling with live drawings in large group activity

Teacher B1 started the activity by placing a large pack of paper on the board. He started telling a story and drawing at the same time. Children started laughing when the teacher started drawing the images on the paper.

- Teacher: Once upon the time in the deep sea, there were many rocks and algae on the seabed.

The teacher began drawing a fin.

- Children started asking 'What is that?'.
- Child B: Whales
- Child C: Dolphins

The teacher started drawing sharp teeth.
Some of children shout, 'Is that a shark?'
Teacher: Right... Do you know any other sea creatures?


The teacher simultaneously drew and narrated the story at the same time. The children were interested in the story drawing. The children paid a lot of attention and some children said that they wanted to draw and tell the story like the teacher.

- Children: The squid, jellyfish, oysters, and the big pearls
- Teacher: OK… There are a school of red fish and also a little small black fish. The little red fish does not like to play with the black fish because it looks different.
- The little black fish is a little upset; however, the little black fish still loves being friends with the red fish They swam far away in the huge sea. They found…"

The teacher started drawing A circle and children guess what it is.

- Child A: is it a turtle?"
- Child G: Or a shark?
- Child L: No, that's a turtle
- Teacher: Yeah, the smiley uncle turtles. He put the smile on the turtle's face.

Teacher continued drawing the semicircle and the children guessed what it was.

- Child A:Is that a jellyfish?"
- Child B: But maybe it's an octopus or squid?
- Child G: Or a mermaid, can teacher draw a mermaid?
- Teacher said, "Right, it's jellyfish".
- Child L: 'Is he kind and friendly?'
- The teacher put a smile on its face: Yes, he's kind, friendly, and also generous.
- The teacher continued drawing the wavy line.
- Child J: What is that?
- Child B: Maybe a long tail eel
- Child A: Nagas
- Child G: Electric eel.
- Teacher "Wow, good guess, the electric eel1.

The teacher keep drawing the picture on the paper. He said, 'Anyway, there are not only the lovely little fish, there is also the beast. It's the scary giant beast who has got very sharp teeth'.

- Children: That's the shark'

(Observation in School B 11 July 2014 9.00-9.45)

In this way, creative teaching occurred when the teacher used the techniques of live storytelling. The teacher used creative storytelling to stimulate children's curiosity, imagination, inquisitiveness and creative expression. Children showed their enthusiasm and happiness through looking at, talking about and guessing the characteristics and the events of the stories. The narrations and his drawings helped the children to develop their listening skills and concentration via visual clues (pictures and illustrations that support children's understanding), the story (contents, events or situations) and from their prior knowledge of how language works, and linked this to their prior knowledge of the world which helps them to develop their own creative powers (Ellis and Brewster, 2002). In addition, the teacher and children had good conversational flow during the class. This allowed children more chances to exploit free space and time to pose the questions, and share and exchange their ideas. This process also supported children in developing fluid thinking and taking up and reshaping new knowledge or understandings between the groups.

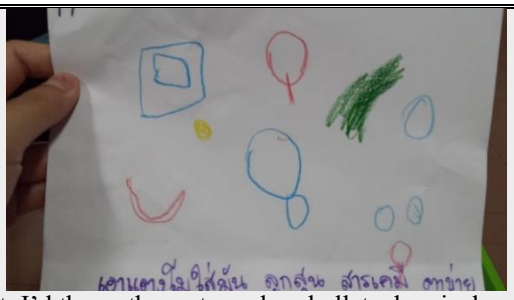
Inevitably, teaching creatively involves teaching for creativity. Close to the end of the observation, the teacher encouraged children's creativity in periods of free drawing. He left the story with open-ended questions: for example, 'if you were the little fish, how would you help them escape from the shark?' He asked all the children to think and draw their own solutions. This related to problem-solving and open-ended activity, which challenges children to use their prior knowledge, interests and appreciation. The creative outcomes were vividly shown in their drawings, which contain originality, autonomy and authenticity (see observation 17).

Observation 17: Storytelling with live drawings in small group activity

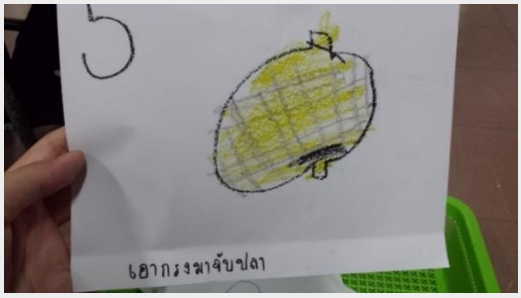
Teacher: All the little fish were swimming away from the shark; some of them are hiding under the rocks. They are trying to find out how to survive from the shark……But who can help the fish to solve this problem?

The teacher posed the question to the children: 'if you were the little fish, how can you find the way to help the fish to survive the shark?' He gave the paper to the children and let them draw pictures expressing their ideas.

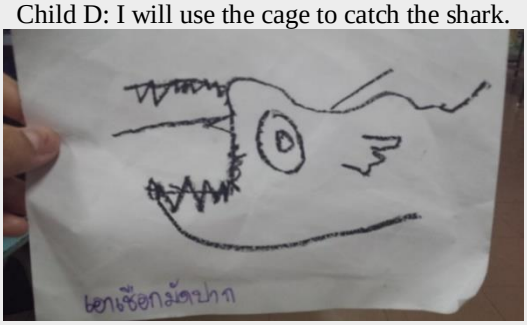
The group of children sat at the table. They started drawing pictures with a little chat. When they finished drawing, they showed their drawings with the descriptions to the teacher and their friends.



Child J: I'm drawing fruit. I'd throw the watermelon, bullet, chemicals, and net to catch the shark, then it would swim away



Child D: I will use the cage to catch the shark.



Child A: I will tight the shark mouth, then it cannot eat anyone

Child C: I have a robot, he can help us. If I found the cruel fish, I'd release the detergent to chase away the shark. This is brilliant!!

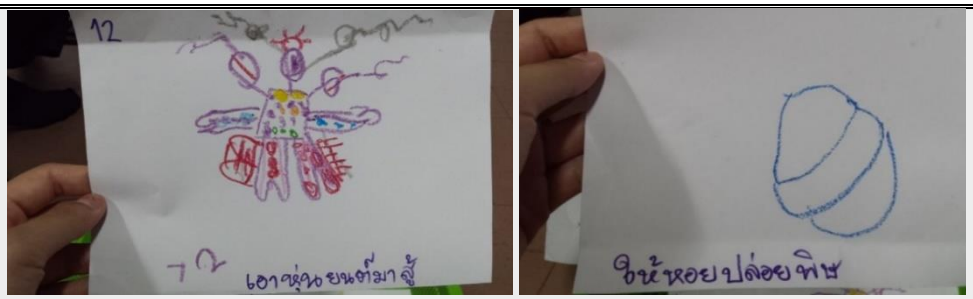
The children had a little chat with the peers in their group. When they finished their work, they gave the paper to the teacher. The teacher wrote down the descriptions of the pictures.

After that, all the children came back and sat in a semicircle again. The teacher showed them the pictures and they discussed how each child found a solution.

Teacher: Wow, one of our friends said, 'we should find a cage to catch the shark.' What do you think about that? Who agrees?

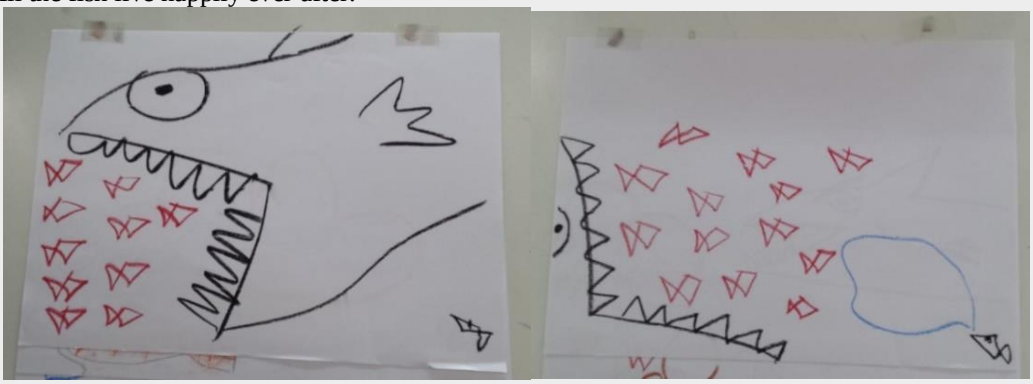
Many children raised their hands.

Teacher: Next one, Child B said 'Bringing a robot to fight with the shark'. Wow, maybe a good idea.



Teacher: Next one, Using the shell spray which is toxic to the shark.

Teacher: Next one, using the watermelon, bullet, net, and the ropes to wrap it up
Teacher: Right, there are so many interesting ideas from you. Now, let's get back to the story. Just to see how would the little fish deal with the shark.
Teacher begin narrating the story again.
Teacher: Now, the shark is attacking the little red fish. Suddenly, the black fish got the idea that we should keep together. Make ourselves look bigger and fight with the shark. Wow, that's such a brilliant idea. All the fish swim together as a giant fish and chase the shark away. The shark swims away from the giant fish. Wow, the little fish are very relieved and thankful to the little black fish. All the fish live happily ever after.



All the children were very happy and gratified, some of them laughing and clapping for the story. The teacher allowed children to name the story themselves. Many children put forward their ideas.
Child JJ: 'Harmonious Little Fish'
Teacher: Well done, great name. Anyone else?
Child A: 'The Bully Shark'
Child B: 'The Clever Little Fish'
All the children finally agreed to name this story 'The Clever Little Fish'. After the class, the children went to the bathroom. The teacher bound the children's drawings to make a story book. The drawing story books were shown at the front of the classroom.
(Observation in School B 11 July 2014 10.00-10.40)

As we can see, teaching for creativity is not a single approach or strategy. The activity involves flexibility of teaching styles: 'varying the tempo, allowing time for students to have their say, a willingness to be spontaneous and the desire to give each child opportunity to excel, mark out those who are called creative' (Grainger, Barnes, and Scoffman, 2006, p.13). This observation demonstrated creative teaching when the teacher used their knowledge and creativity to make effective and interesting teaching, in order to reach the learning goals. The

methods emphasised the use of imagination, originality and curiosity, and stimulated children to establish the possible choices or new solutions in specific situations. In this case, the role of the teacher enabled children to observe and gather different pieces of information and link them for creative achievement. The teacher facilitated the children to engage their sense of possibility and trust; the aim is to assist learners in feeling valued and having enthusiasm (ibid.). At the same time, children were dealing with creative problem-solving, which requires children to consider different possibilities and decide the most preferable solutions. They needed to gather information and process it, then they expressed their ideas through drawings. These examples show that when children find a problem or face a challenge, they decide which information is the most valuable and worth using in each situation. Indeed, the storytelling time can go beyond just listening to the story. Creative teaching and teaching for creativity bring opportunities for fostering creative thinking. It provides great opportunities for pupils to think and work independently rather than copying the original pattern. In conclusion, creative teaching can amalgamate active learning with the process of teaching for creativity, as the final aims in such a context.

As mentioned earlier, scholars have argued for making a distinction between the two teaching strategies. In fact, both methods might work compatibly. This is debated by the NACCCE (1999), who anticipated the relationship between the teaching styles and highlighted that teaching creatively is related to teaching for creativity as 'young people's creative abilities are most likely to be developed in an atmosphere in which the teacher's creative abilities are properly engaged' (ibid., p.90). Kind and Kind (2007) state that good creative teaching includes student-oriented group work, cooperative learning, explorative tasks, open-ended problems, open investigations, hands-on teaching, outdoor activities, project work, and risk-taking. Edgington (2002) noted that if children were blocked from expressing their ideas, they would lose their self-confidence and hardly develop thinking skills. This is supported by Joubert (2001), who states that experienced teachers tend to steadily integrate and adjust their teaching styles to different circumstances. However, effective teaching requires teachers to work with a firm core of identity and principle (Craft, Jeffrey and Leibling, 2001), since when teachers have a clear aim and distinct pedagogy, this allows them to work more flexibly and efficiently. This is a complex process and teachers must bear in mind that the main goal is to develop their creative teaching skills in order to cultivate children's creativity. In fact, there

is not just a choice between creative teaching or teaching for creativity; the balance between them is key. The process of developing creative teaching and teaching for creativity includes training, practicing, and reflection. Teachers are required to develop the full skills of creative thinking, adapt explicit knowledge and apply it to various situations (Leaderbeater, 1999). They must obtain a thorough knowledge and understanding of creative teaching so they can efficiently put forward the teaching methods or techniques most suitable and beneficial for each situation. In this sense, the teacher must pay attention to a child's learning and progress. These experiences and skills can help them select the appropriate and effective teaching techniques and promote a classroom atmosphere wherein the child thrives in sustained creative learning.

Summary

Throughout the research data, the interviews with teachers showed their efforts in promoting creativity in the classroom through various teaching techniques, which links with the close observation that showed how the content-based learning was amalgamated with integrated learning. In both cases, the creative pedagogy approaches became explicit in the main activities including circle time, art activity and play corner. The curriculum and teacher's interviews demonstrated the efforts in applying a specific pedagogy such as informal learning, child-centeredness, playful learning, creative teaching, art, science and integrated learning as the main platform of children's learning. At the same time, many observations showed that the context of the classroom, such as the adults' roles, played an important part in either giving positive influences or hindering creative development. This is reflected in both pedagogy and the curriculum, which combines the theories of early childhood education and social values and beliefs that are strongly shaped by the culture. However, there was a contradiction within creative pedagogy in practice. This can be seen where the test and worksheet were not used and more active learning and freedom were provided in small group activities but the form of learning mostly appeared as adult-initiated activity. Thus, the teacher remained dominant in the classroom. This turns child-centredness into teacher-centredness. The play and active learning showed flows in engagement and were full of excitement from the children; however, when teachers over-controlled children's actions in the classroom, they then turned the creative activities into open-ended activities with closed-ended controls. In relation to this

finding, this showed that schools and teachers placed the importance on the teaching process more than on the learning process and learning atmosphere. It has been argued that creative growth requires process, people and place (Rhodes, 1961). Therefore, the schools and the teachers need to realise that the ingredients of creative learning require more than the mere activities; they require creative approaches, supportive action from the teachers, and also a climate of freedom and acceptance in the classroom in order to allow children's creativity to grow and flourish simultaneously with the academic in the social context. It was suggested by Wood (2015) that teachers should (a) identify the children's areas of interests and strengths, (b) prepare to deal with children's challenging behaviour during teacher-initiated activity that may be difficult, uninteresting or overwhelming, (c) ensure that every child has frequent opportunities to participate, ask, answer, make choices and offer comment in a verbal and non-verbal manner, and (d) share jobs or responsibilities or the work with children to give them a sense of belonging. The efficacy of this formulation was observed throughout the data-gathering process and highlighted how the curriculum has enhanced the use of creativity in preschool settings in Thailand, but it also indicated that there is still some way to go in this area.

Theme 3: Creativity and school environment

This section highlights the creative environment that is provided in the schools involved in the study, such as play corners, learning spaces and other materials. This was drawn sequentially from material relating to the guiding research questions as follows: *RQ3: How does the preschool environment influence children's creativity in the preschool classroom?* As we have considered the theory of Four Ps creativity specifically in this study, we looked for indications that the school environments were supporting children's creative processes such as play and exploration, involvement, enjoyment, and persistence (Fumoto, Robson, Greenfield and Hargreaves, 2012), as well as creative product such as involvement in the traits of creativity like producing novelty, originality, value (Craft, 2001); surprise, beauty and usefulness (Boden, 2004); and uniqueness, unexpectedness and functionality (Sternberg and Lubart, 1995). The analysis, thus, highlighted six factors in the preschool classroom environment that enhance children's creativity:

a) play corners
b) using natural materials to enhance children's creativity
c) engaging with art tools, colours and materials that foster creativity
d) music and song: tools for expressing emotions and thoughts
e) active learning space
f) positive learning atmosphere: love, happiness and satisfaction in work and play

4.3.1 Play corner: the space for creative experiences

This section is concerned with events that occur in the 'play corners', which include the home corner, science corner, blocks corner and books corner. Learning corners were introduced in the first Early Childhood Curriculum when it was launched in 2003. This suggested that schools should provide activity corners including a home corner, art corner, music corner, science corner, block corner or other gameplay corners. Each school and classroom are allowed their own choices to set the corners based on their purposes, learners' interests and needs, and the harmony of the local resources. Three factors in play corners that enhance children's creativity and creative learning were revealed: (a) choices of interests, (b) predictability, and (c) open spaces for independent play.

Primarily, play corners offer choices of interests. When entering the play corners, teachers often noted that children went straight to their areas of interest and frequently showed enjoyment and curiosity when choosing to participate in an activity. Children chose their preferred activity to start with and moved around to the other areas until they had completed the activities. This reflects the process of individual play, wherein children can sincerely choose what to do and discuss his/her ideas with peers and adults. This clearly appeared in many observations: the form of play refers to the role of play or free play in the play corners or open learning areas, which focuses on the enjoyment of playing with various objects, materials and toys. Home corner, kitchen corner, block corner and book corners are the most popular corners for children during the class activities and in the mornings and afternoons. Children have the freedom to choose to play in any corners during playtime after circle time and arts and crafts activities. Block play gives an extensive experience for young children to develop science, mathematics, art, language and social skills to create a three-dimensional

construction or figure. This can be seen in one observation wherein two boys played in the wooden block corner (see Picture 5). The children selected materials and language with which to argue and make their own thinking visible.

Picture 5: Children were playing in block corner

As observed, children form pictures in their mind of what they have seen. They move, order, turn or create items to make a representation of the desired items. Children explore the meaning of symbols from the materials and develop their creative representation through imaginative play. They make a bridge between the physical forms and their imagination to create an image and story in their mind and use the objects to stand for various concepts. This showed that play with blocks offers children an opportunity to recreate these pictures in concrete form. The ability to form new representations of their experiences is the foundation for the creative thinking process (Amabile, 2010).

In the book corner, children obtain a better understanding of the correspondence between the pictures and the words. They can learn basic skills such as literacy, counting, number recognition, identifying colours, and reading pictures through books. They can make predictions and think about the causes and effects and make a connection between the story and their own experiences.

Picture 6: Children in book corner

From the observations it was noted that the children had the opportunities, autonomy and resources to make decisions in their own learning. They demonstrated enjoyment and took part in conversations. Many observations showed that the discussion was significant as a key by which children and the teacher learned from each other through communication, enquiry and collaboration to motivate creativity. When children were inquisitive about the subjects or story, they extended the questions from various aspects of the book such as the people, objects or events and they made some questions. For example, children were curious about the object used for trailing the way back home: 'Can we use something else that the bird will not come to eat?' 'Why does the witch to eat only a boy, not a girl?', 'Where is the stepmother?' et cetera. This identified the most interesting points and their curiosity about the relevant ideas. Children obtained encouragement from the teacher and their peers, and complimentary words or applause were used to praise children's ideas and behaviour. This oral communication enabled not only the transmission of propositional knowledge, it created a meaningful dialogue through playful interaction. The book corner provided more open space and time for children to become independent and extend their ideas and pose questions, share and exchange their ideas as well as originate new knowledge or understandings between the groups. This helps children to develop their listening skills and concentration via visual clues (pictures and illustrations that support children's understanding), the story (contents, events, or situations), firm up their prior knowledge of how language works, and link up their prior knowledge of the world, which helped them to develop their own creative powers (Ellis and Brewster, 2014).

It also supports children in developing fluid thinking and taking up and reshaping the social context to collaborate and originate their own thoughts.

In addition, play corners were referred to in the lesson plans made by the class teachers for their work in designated interests, and play areas were discussed in relation to setting out potential materials and ample time and space for activities. This reflects the aspect of predictability which is required for the time provision for the play corner in everyday routines. It was noticed that when children have time to spend in predictable play spaces, it made other children better known to them, understood by them and acquainted with them. On the other hand, without well-organised and predictable play corners, children would not be able to engage with objects, people and activities to grow in their abilities to create novelty, originality and value (Craft, 2001). Resourceful play space and its predictability inspires children to be keen to explore their own ideas and get involved in an activity that takes ideas forward through the rotation of play in different corners.

Another important point was that play corners are set as an open-ended learning space where children play and work with a large selection of open-ended and closed-ended objects or toys in the classroom. Closed-ended items, that is toys with a clear ending point such as puzzles, books, et cetera, were used to support task completion or get attention. Thus, open-ended materials allowed children to play freely and extend their ideas forwards. Crucially, many toys and materials in play corners encouraged open-ended activity since children knew where to find what they needed and could independently access them. As children spent time exploring the properties of objects and toys and then created and tried out new function, the data revealed that the frequency of access to play corners over time as well as the duration of the time children spent with the items and objects is vital.

As observed, School A had a well-organised play corner. It was set out with a kitchen corner, book corner, block corner, sensory corner, and outdoor space. The toy shelves, bookcase, play booth and furniture are set to divide the room into small corners. A variety of materials, equipment and toys were available and accessible to the children. Illustrations were placed at eye-level to support children to observe and understand the meaning and values of surroundings related to their school experience. Window shades were fully open to use natural

light. Fabrics were used on the board instead of paper and also used to decorate and create a softer visual and more natural atmosphere.

Picture 7: Kitchen/home corner in classroom A

Picture 8: Book corner in classroom A

Picture 9: Block corner in classroom A

Picture 10: A wide range of toys and items were seen in free play corners in classroom A.

On the one hand, School B had a home and dressing corner, book corner, block corner, music corner, and interactive corner and it had a wide-open space but was not as well-structured. The learning space had bookshelves, play sets of materials and furniture, but the areas were too poorly organised to facilitate children to decide what to play with and where to play. Many toys and equipment were old and the windows were closed and only fluorescent light was used in the room.

Picture 11: Play corners in classroom B

Comparing and contrasting the sites, each school and classroom offered their own choices when setting up the corners based on their purposes, learners' interests and needs, and also

the harmony of the local resources. Both schools set similar traditional play areas: the home corner, block corner, book corner, science corner, games corner and music corner. Each corner was populated with wooden blocks, plastic construction materials, books, colourful fabric, and natural or real objects. The philosophy of play corners is based upon a child-centred approach to teaching preschool children since it gives opportunities for children to create their own work freely. This implies that the schools placed a great deal of importance on play-learning space to support child-initiated activity and reduce the prevalence of teacher-initiated activity. Nevertheless, a clear difference between the two cases centred on the quality of the spaces and materials. In classroom A, the toys and materials are varied and they are in good conditions and the play space is well-organised, which is set up to support children to explore the items on their own and with their peers. In contrast, school B set up the play corners to meet the curriculum standards but the space was small and untidy. The toys and equipment were in poor condition. The atmosphere in these play corners seems less playful, less desirable and less comfortable for creative learning. In fact, the play corners in school B seemed to be used as the toys and materials storage area or as a part of large group play rather than an individual play space for a child.

Overall, play corners are an efficient platform for young children to experience novelty, originality, and useful and valuable outcomes. Play corners nurture children's creativity through choices of interests, predictability and open spaces for independent play. The open space offers children time to explore cause and effect, create patterns, and bridge the gap between concrete and abstract thinking through hands-on learning. The common corners were kitchen corners, block corners, music corners, sensory corners, and book corners. This fosters 'predictability' for children so that they know what they want to do, and what/where they can do (things) in the play spaces. Children obtain 'freedom' and 'choices of interests' in these corners. Nevertheless, the quality of materials and spaces is also important. If we compare both schools, in School A, children have good accessibility to a wide range of toys and media including recycling materials in the play corners such as magazine paper, paper boxes, tissue rolls, plastic bottles and newspapers, and natural materials such as fallen leaves, flowers, seeds, rocks, shells and pine cones. The format for play and exploration resulted in an increased fluency of ideas and allowed children to develop their own creative representations alone or with peers and adults. On the other hand, School B set up play corners to help children

to try out their ideas and establish the possibilities of what they can do in certain situations, and this helped them originate new ideas and make learning become meaningful. Yet, the spaces were small and poorly set up when compared to the whole classroom area. The teacher selected some toys and materials to use in large group activity rather than allowing children to spend time in play corners. In this scenario, play corners are ineffective learning spaces in terms of fostering children to be involved, enjoy and persist with objects or explore phenomena (Fumoto, Robson, Greenfield and Hargreaves, 2012). This reflects poor awareness of free play spaces that allow learners to play with new ideas, as well as express their feelings, in order to support positive emotions towards creative development. Perhaps tellingly, the issue was discussed by the class teachers, who noted that the high importance of academic learning and time constraints took higher priority than free play in their classrooms.

4.3.2 Using natural materials to enhance children's creativity

The value of natural materials was one of the key themes that became evident from the data gathered. In School A, class teachers A1 and A2 provided an interesting environment for children to play and develop their curiosity, and provided opportunities for them to discuss and bargain with peers and to chat about what they do and what they had discovered. In sensory play corners, the leaves, twigs, coconut shells, seashells, and stones were set in 'natural' collections play corner (See Picture 12). This included a variety of leaves and flowers such as striped leaves or leaves of different colours and shades as well as textures and scented leaves and flowers. Bark and twigs from trees were cut into short lengths to show the grain and knots that children found interesting and applicable to play with. Seeds of different sizes, shapes and colours, pods with seeds still in them, and cones of different shapes and sizes were also available. These ranges of natural materials that the teachers provided for the young children showed the uses of an assortment of the objects from local communities and unusual items from other parts of the country.

Picture 12: Natural materials in natural' collections play corner

The natural materials were used in both play corners and art activity. They can be considered as open-ended and freeform shapes that have no prescribed use in order to encourage children's divergent thinking and originality. Unlike block play or Lego, many of the natural items came with unique or non-identical structures. Natural materials were used to encourage

children to observe thoroughly and use all their senses. Many observations demonstrated that the quantity of materials, the space and the freedom to combine materials were all important since children created a variety of artefacts. For example, in block play, children observed the natural wood blocks and constructed them in new ways (Beetlestone, 2003). For example, two boys used the wood blocks to build up what they described as a bonfire. The first part of the play sequence was a combination of making a bonfire and narrating grilling beef. Then, a boy was thinking about building a house near to the bonfire and the play moved seamlessly to the story of a house and its antenna.

Observation 35: Wooden blocks

In the wooden block corner, three children (Mooham, Ken and Phi) were knocking and hammering the little logs. It seems like they are making something. They try out and analyse their ideas and imagine and negotiate roles in their play.

- Child M: This is my bonfire
- Child P placed one log on top of the bunch of logs.
- Child M: No no, don't put the beef on, take it off, there's too much
- Child P says, 'OK ok' and takes one log and pretends that he is eating beef
- Child M: I will build my house from beef
- There is one big log stand around the area.
- Child P went and sat on the big log and swayed on the big log.
- Child M: Can I sit with you? Can I sit with you?
- Child K: Come here, let's make an antenna but be careful of burning
- Child M: I can make fire like a dragon…

(Observation in School A 4 February 2015 9.30-9.50 a.m.)

The conversation between the children enabled them to negotiate the meaning of the symbols and express their unique and imaginative ideas with each other. In terms of culture, the adult role did not appear much in the wooden block corner. Children had full freedom to play and

explore with the objects with their peers. It can be assumed that block play is an open platform for children to develop their creative thinking ability and communication skills across learning domains such as mathematics, sciences, art and social sciences, and is symbolic of culture. Providing various local resources for learning can help children to develop active exploration and thinking and reasoning skills which fit with the environment and culture of their community.

Another observation that presented children with creative play appeared in the rock garden corner. The following happened in the rock garden when three children (G, B and D) talked, shared, and negotiated their ideas during their play. The sequence of play started when children observed a little stone. Child G negotiated to share the big and small stone with Children B and G. Child B used the stone to stand for a necklace and earrings and desired to share with D. Child D made what she perceived as a pink earring. After a while, the necklace and earring were changed into the Thai desserts Tong-yod and Luk-chub for a New Year gift, which referred to an event in the school calendar. The conversation between B and D moved to the variety of dessert. Finally, child G quietly set up the stone in her place and invited the other two to come to her rock spa. Child B declined to join in because she imagined it might be hurt. Child G then offered a fish spa. Finally, the conversation ended with the joy that the spa fish were tickling and they were laughed together.

Observation 36 : Sensory corner
Three children (G, B, and D) have a hat and negotiate their ideas about what can they do in the sensory corner.

- Child G: Hey, let's come and see
- Child G: I need the big rock and you take the small rock, Ok?
- Child B: Hey D! Would you a necklace and an earring?
- Child D: Uhm, ok I'll take one necklace. Uhm can I have a pinky earring please?
- Child G gives a stone to D.
- Child D: Thank you, and what's that, B? Do you have some sweets?
- Child B: I have *Tong-yod* and *Luk-chub*
- Child D: Haaaa, I love Luk-chup and my mom likes it as well, I'll take two boxes for New Year gifts
- Child B: This is mango flavour, peach, papaya, chili, banana and corn
- Child D: Can I have mango and orange?
- Child B: No problem, Here we are
- Child B gives a few rock to D
- Child D takes the rock and pretends that she's eating *Luk-chup*
- Child D: Yum yum, it's very delicious
- Child G: Hey, you can come and massage your feet in my shop

- Child B: I don't like it to hurt
- Child G: Uhm Ok then I have fish spa. Come here and put your feet in the pool. Little fish will come and kiss your feet.
- Child D: Haha, it's ticklish

(Observation in School A 8 February 2015 10.35-10.50 a.m.)

Indeed, the observations showed evidence that different types and objectives of play can be the key to creating opportunities for children to develop their creative engagement and expression. Play in play corners offers children opportunities to try out their physical and mental limits and to investigate the position and the power of their learning capacity. Children explore the meanings of the symbols from the materials and develop their creative representation through imaginative play.

Overall, natural objects can be used very creatively to play and create patterns, carry out creation and representation since things can be moved around and shifted from one to another form. This offers children the opportunity to show evidence of novel ways of looking and thinking. When children engage with a range of natural materials, it offers them the chance to manipulate unique objects such as barks and twigs, leaves and rocks, which encourages children to be more creative and to extend the range of challenges they have to solve as they investigate how to create with irregular shaped items and materials. We should note that the process and product of creativity with natural material or play corners function in many ways. All this requires the selection of natural materials and a space in which to create the shape or symbolic demonstration. Last of all, photographs are an effective method to help teachers to retain a record of the creative creation and representation that children have made, which can then be used for assessment.

4.3.3 Engaging with art tools, colours and materials that foster creativity

This section explores creative art activity which involves expressing ideas and feelings by using a wide range of materials. Drawing, painting, colouring and making crafts were evidently the main activities in the creative arts and these processes were used to stimulate self-expression, peacefulness, focus, concentration, uniqueness and individuality. Children were motivated to be creative through open-ended learning and the beauty of art and nature with a wide range of materials such as crayons, colouring pencils, watercolours, brushes, sponges, paper and glue, natural materials such as leaves, flowers and recycled materials, such as clay, papier-mâché, recycled paper, magazine, paper boxes and plastic bottles (as shown in picture 12). Moreover, body parts, such as fingers and hands, were sometimes used in art activities. This gave children a chance to explore and express their feelings and knowledge of themselves and the world around them and create artwork using a great verity of materials.

In the classroom, the process of engaging in, and with, art enables children to undertake creative activities as individuals and provides chances for them to build up their identities and their uniqueness through their work in the classroom. Art tools and colours were used as ways to help children to express their ideas, thoughts and stories. The class teachers A1 and A2

provided assorted colouring pencils, crayons, watercolours and recycled paper for children to draw and paint on during the art activity. These art tools are expressive, responsive to children's ideas, aesthetically pleasing, and flexible.

Picture 13: Children's drawings

On the art table, colouring pencils, watercolours, paper and easels were prepared for children to create their own artefacts. When creating artefacts, children use different art tools such as crayons, watercolour paints or colouring pencils to create stories and images that represent

their imaginative worlds. The colouring pencils and crayons give drawings shade and gradation and are versatile. The enjoyment of using different drawing or painting tools helps children to construct meaning with visual representations of themselves. Beautiful, appealing, and fascinating materials seem to bring out the best in the children and it is clear that colourful pictures and paintings are an encouragement that inspire children to create more stories and meanings and take ideas forward from their own perspectives.

Picture 14: Children's paintings

Responsive materials that respond to pressure and touch or folding et cetera are also channels for self-expression (Kiewra and Veselack, 2016). Teachers often prepared clay, watercolour paints, and sponges et cetera to motivate children to make marks, textures, lines, and different shapes of print. These responsive materials enabled unique techniques that require children to understand their uses. Similarly, using natural materials in art can be an accessible platform to develop a sense of the aesthetic and creative, since they provide alternative ways to generate novelty and originality within a fun atmosphere. The characteristics of a positive atmosphere, such as love, desire, and fun and inspiration can be seen as sources for the drive to learn. This offers a motivation for children's emotions and leads them to develop symbolic representation skills, productivity and originality, a sense of aesthetics, and an imaginative world as well gain hands-on experience.

Picture 15: Children making artwork by using different materials such as sponges, and leaves

Furthermore, exploring many materials in a peaceful and joyful atmosphere that creates meaning making with open-ended communication is linked to the process of production and authorial intentions (Chandler, 1999). Using versatile art tools enables children's ability to observe, to imagine and to feel, and if they can make choices in their work they can express feelings and experiences that may be difficult to express in words (Jones, 1972). This offers pleasurable moments to help recreate or rearrange their emotions, ideas and information in order to make new combinations. For example, the children here worked individually or operated in small groups. They used plasticine as material to create artefacts that stood for the images in their minds. Some children created flowers using actual types of flowers such as jasmine, rose, sunflower or rachapruk, and some of them made imaginary flowers, such as the flower of ASEAN, whilst some made a 'Joyful Flower' and a 'Singing Flower', and a flower with eyes.

Picture 16: Children's artefacts: jasmine, rose, sunflower, rachapruk, 'Joyful Flower' 'Singing Flower, and a flower with eyes

This observation displayed the great imaginative level of the children and revealed that they are driven by their prior experiences, knowledge, and their imagination and aesthetics to create their work. This artistic work developed their creativity by expressing and representing their ideas and emotions as well as interpreting abstract concepts through their dispositions such as curiosity, enthusiasm and inventiveness (Bruce, 2004). Creative art and craft activity seems to help children to engage with meaning-making and free expression that is related to personal creative expression and motivates the excitement and passion towards creative engagement.

Indeed, a range of art tools and materials can stimulate novelty. The different tools can enable children to play and explore their properties to create different textures, patterns, shapes, weights and colours. An assortment of potential materials can inspire children to produce creative drawings, paintings, sculptures and other artworks. As observed, art tools and

materials help children to reflect on their thoughts, interests, life experiences and cultures. The recycled paper, magazines, tissue rolls, straws and empty plastic containers were used in a variety of ways. When children engage with these materials, the materials seemed to motivate every child with different interests to work and explore in the classroom. This can encompass spontaneous or impulsive play for all children.

4.3.4 Music and song: spaces for expressing emotions and thoughts

Music and song activity was seen as a creative process which helps children to express their creativity through its own symbolic system across different cultures**.** In the curriculum, the aims of music and movement activities are to support children to be happy, and express their ideas and feelings in music, movement and exercise. The content consists of interest in and attention to the beauty of art, the beauty of song, sound and natural sound, and the joyfulness of music and movement activities. Such essential experiences focus on the action and reaction of children in response to music, the exploration of sound and music, the ability to play a musical instrument, and movement with simple rhythm. The expected skills are (1) the ability to imitate behaviour and sounds, and (2) the ability to show movement based on ideas with more elaboration, novelty and originality. The respondents recognised the nature of the music activity as an open-ended space that offered children time to explore and convey their awareness, emotions and appreciation, and develop their uniqueness through new experiences and opportunities. Teacher A1 noted the strengths of these activities with comments such as

> I think that every day, teachers need to encourage children's creativity. In music and movement activity, I encourage them to think of new ideas through dancing. I'll not limit them to a dance posture. I first found out they imitate the movements so I suggest them to change and dance freely… Children always have fun and express creative music and movement through many actions.

The responses included key words such as 'encourage', 'new ideas', 'not limit', 'freely', 'fun' and 'express' as the ways to generate creative potential. These indicated music activity as a way of socialising, communicating ideas and establishing the relationship between the individual and the outside world, which allows children to investigate their feelings and values

and helps them to generate creative ideas, while supporting their flexibility, adjustability and variability rather than logical or limited responses.

In practice, music activity often accompanies games, movement and communication. For instance, in case A, music activity was organised with game play, movement and playing with music instruments. Teacher A1 often adopted music and movement activity. She usually gave instructions to children to sing a song, walk or step along to the rhythm, or move around the room. She uses percussion to make the rhythms and gives instructions for the children to move in certain movements or freely around the classroom. In one case, the teacher played a rhythm with percussion. Children started walking step-by-step, following the rhythms around the room until the rhythms stopped. Most children focused on walking with the rhythm while some showed their interest in the learning theme of the week. Children were keen to explore and/or show interest in the potential of music activity. They showed a certain amount of enjoyment and playful conversation was allowed for the sake of the children's imagination and fantasy. Nevertheless, the class teacher encouraged children to follow the instructions and encouraged them to express new and unique actions. However, she often used phrases such as 'calm down', 'be quiet', and 'don't talk so loud' to control children's behaviour and carried on with instructions to keep their behaviour in order. The instructions took place during music play in order to control the children's behaviour, yet at the same time, it helped children to know what to do and the control from the teacher was effective in reducing children's busy behaviour; children seemed to calm down and be quieter when they received such cautions.

Picture 17: Playing with music

Despite the fact that children seemed to be familiar with the circumstances, the dominance from the teacher seemed to create a limited learning climate. Music play (in case A) was supposed to develop children's imagination and their aesthetic and artistic senses, yet the instruction and control from the teacher tended to twist these opportunities into only learning about the rhythms or songs. The classroom atmosphere was dominated by certain instructions. The restricted forms of music engagement seemed to influence the creative expression and have a negative effect on the freedom, playfulness and liveliness in the classroom. It can be argued that music and movement is supposed to help children to see people, places or things in new ways and fully negotiate the meaning of symbols or express their unique ideas to the others (Craft, 2003). The lack of play and engagement made children feel inactive and bored towards the class activities, and too many fixed objectives for play and excessive control from the teacher seems to hinder children in taking their own ideas forward and does not allow them to dig deeper into flexible or creative ideas. The warning words, in fact, did stop children's natural behaviour for a long time, which may be because children receive such cautions every day and become accustomed to them.

It seems that the role, knowledge and attitudes of teachers are the key in shifting the traditional ways of teaching towards new ways of fostering creativity. Music activity was aimed at creating a playful atmosphere and the amount of freedom, time and space to be made available for creative expressions should be visible in the classroom. Yet, the belief in creative activity seems to be more important than the creative environment and atmosphere. The teacher believed that they provided an open opportunity for risk-taking and experimenting more than actually happened in the classroom. Thus, it can be said that developing creativity not only involves types of learning activity but also the role and attitudes of the teacher in creating the classroom atmosphere.

4.3.5 Active learning space

The importance of active learning space appeared in classroom B1 as 'The School Project'. In the first step, children started by looking at the view of the school and community area from a high viewpoint on the fourth floor. Observation and exploration offer children an open experience to show their interests in the potential of the place and phenomenon. This

stimulates children to use their senses, such as looking, listening, and comparing, to know more about the space, building, the area and phenomena. This process of observation allowed children to be open to experience and become sensitive and observant, and it helps children to be curious, have an open perspective, receive information and develop creative perceptions (Meador, 2003).

Picture 18: Day 1 - A child is observing the school from the top floor of the building

The second step was school map-making. The children and teacher discussed the landscape of the school with a landscape picture (see in Picture 17). Then, the group of children drew the school map on a large sheet of paper, which helped children to connect with the real experience, with group discussion and the landscape picture (see in Picture 18). The teachers encourage the children to work on extended projects by acting as facilitators to enable children to use their play or drawings as a graphic language to express their ideas and feelings, and develop their observation skills. Children were keen to engage in the drawing activity quietly and in small groups. Each child drew the building as they observed it. Although the facts of the school location and the map re not flexible, each child nonetheless added the details of buildings and places from their perspectives. Creating artwork helps children to use their personal experience and present their perception, which is the source of self-expression and the representation of ideas.

Picture 19: Day 2: The teacher showed the panoramic photo of the view of the school

Picture 20: Day 2: Children are making a school map

Subsequently, on Day 3, the children agreed that they would like to extend this activity and make a 3D school model (see in Picture 19). They used plasticine to make a model of each building in the school before placing them together on some cardboard. The process of making a mould of each object helped the children to compare the school from multiple angles and viewpoints including from photographs, the drawing and reality. The entire process stimulated the children's sensory-motor learning enabling them to be flexible in order to represent multiple views and provide a detailed elaboration, and thus inspire their creative work. In addition, the conversation during art offers children opportunities for investigation and

extension of the conceptual knowledge, as well as exchange and idea-bargaining and sharing perceptions between the groups.

The children sat straight and still, legs together, hands in their laps. The teacher chose some children to arrange the school playdough on the paper map. He told the children to make the dough into a long line shape. The children asked him to make sure they understood by asking ‘a long line like a snake?’ and the teacher said ‘Yes’. One child said, ‘Wuuuh’, but the teacher replied ‘not a real snake’. The teacher arranged the pieces of play dough into a road on the paper. Some children volunteered to help the teacher in the activities.

Picture 21: Day 3: Teacher and children made a model of the school and place it on the cardboard.

The children took the school playdough and put it on the paper. The teacher said, ‘These are the buildings that you studied over the last year. Is it at this point?’. Some children said ‘No’, some said ‘Yes’. The teacher then discussed with them the location of the building and also persuaded the children to work out the location from the picture. He guided them by pointing out that the building is located next to the road. Some children volunteered to attempt to arrange the building. The children placed the dough building on the paper. The teacher asked all the children, ‘Is it the right place?’ Some children said ‘No’, some said ‘Yes’. The teacher then said, ‘it’s not correct yet. Try again’. The child could not find the right place. The teacher asked the other children to help them. The other children tried to put the playdough building on the paper. The teacher said ‘Yes, that’s right’, and some other children volunteered to set the playground.

The teacher then guided the children on how to find the building location in the school. The children enjoyed arranging the dough stuff on the paper. Even though it seemed difficult for them, they put great effort into placing the building in the right location.

Picture 22: The final work of the 3D school map-making

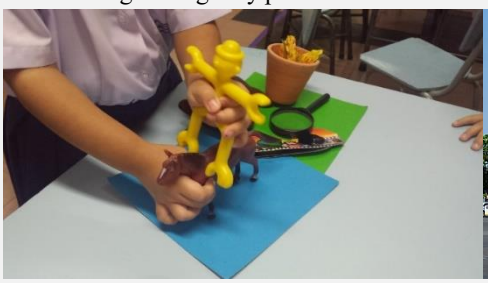
Arranging the 3D map required spatial ability and the process of learning was facilitated by the teacher guiding the children through linking the model to the real space. The teacher motivated the children to try to put the model on the paper and communication was open and straightforward. Children were relaxed and comfortable in sharing their conversation and were open and even outspoken with the teacher and their peers, and there was mutual respect and support for each other. This ties in with one interview with the teachers in which it was stated that the children had open-ended opportunities to try things out through large group discussion and free-play activity.

In the days after the above, the children learned about the community area by plotting the most interesting and important places around the school (see in Observation 19). The teacher discussed with the children about the places around the school and asked the children to create these places by using any toys, materials or equipment in the classroom. The children began searching in the classroom for material to build their own places and they mentioned each of the places they knew. A group of children were keen to talk about their story: for example, one child mentioned, ‘This is Rajavinit School’. Then, another child said, ‘My brother is studying there, there is a swimming pool in the school’. Another child said, ‘I know, I have

been there as well.' Another group of children made the King Rama V monument. They took the horse and put a doll on it. The teacher then gave one more example. They explained that the children may use a number to represent the '904 Palace'.

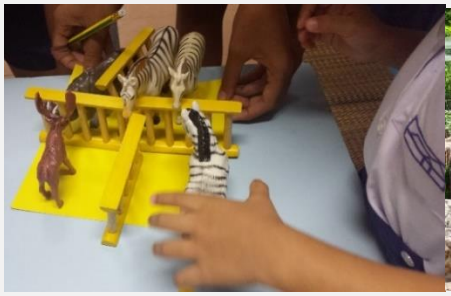
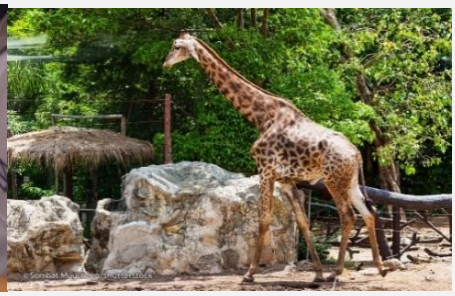
Observation 19: The places around the school

During the small group activity, children chatted in their groups. Child Ton said, 'we need a horse, people, and a knife'. The teacher asked them, 'Do you need a knife? It sounds scary'. The children laughed and one of them said, 'it's not a knife it's the sword'. The children tried to stick the doll on the horse but they found it's not the proper size and they could not stick them other. 'The man cannot sit here. It's too slippery. We need glue to stick them together.' She tried again to gently place the doll on the horse.



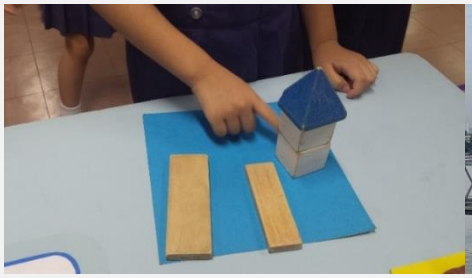

Another group of children put some blocks and fruit on the paper: 'They sell corn at 904 Palace'. The teacher suggested the children to take the number of the palace. The children found the numbers 9, 0, and 4 and arranged them on the paper.

Another group of children were making the zoo. They started discussing what they need to make the zoo. Child J: 'I think we should make the cage first' The children placed the block, which has had a baluster in a square shape. The teacher came and helped the children to make a new cage. Child B: 'Ok, we got the new cage'. They smiled to each other. Child J: 'Put the tiger here'. Child B: 'And the zebra is here, next to the tiger, and put the hippo over here'. Child J: 'Have you seen the hippo?' Child B: 'Sure, I have seen it. The hippo always stays in the pool. There is a little hippo next to the mom too'.

Another group of children were placing another wooden block on the paper as another building.
Child S: 'This is Rajavinit school, there are buildings, a swimming pool, and a chair'

Child K: ‘Can you move this building? I need more space for the tree.’
Child L: ‘There is one child and one teacher here.’
The children discussed what they needed to represent the place.
Child S: ’This is the bridge. My house is close to the bridge. And there is the river. We can swim or take a shower there.’
Child G: ‘There are fish in the river as well’
Child S: ‘And this is an electricity post, and the fish are swimming then daddy catches the fish back home. Yeah!’
Child G: ‘There is a coffin shop next to the bridge.’ Teacher: ‘Really?’
Child S:’ Yes, I’ve been there when my grandfather passed away’. She asked the teacher, ‘Can we use the skeleton?’ Other children made a shrill noise. The teacher said, ‘Okay, they can use anything that they want to’. She put the plastic skeleton on the wooden block. Other children put down more blocks on the paper and created the bridge.


Child G was making a place alone. ‘This is the Library’, they said and Child 2 replied, ‘This is the temple.’ The teacher asked her, ‘What is the name of the temple?’ and Child G replied, ‘Rajapha Temple. It is close to our school.’ She put a plastic ladybird on the paper and explained what she was doing a bit more. The teacher said, ‘Wow, those are nice ladybirds’. Child G replied, ‘No, this is not lady bird. This is the bus. The bus is parking at the temple’. She put more ladybirds down and said, ‘there are many, many buses parking at the temple’. Teacher asked again, ‘Why are there so many buses at the temple’. Child G: ‘Well, because the temple is located close to the bridge, so the bus comes to pick up all the people from the boat’.

Time was up. The teacher said to all the children to keep their work in the corner and prepare for the next activities.
(Observation in School B 14 July 2014 10.00)

Later on, with help of the teacher, the children used blue adhesive tape to make the street and put all the models together in order to make a school and community diagram (see in Picture 22). The final work was then set up in one of the play corners for children to play with during free time. Crucially, such multi-disciplinary activity assists children in engaging in creating and presenting their ideas. The variety of subjects and activities helped children to become observant, curious, and link their abstract knowledge to the activity. Moreover, each child had a chance to engage in various activities which could help them to discover their personal interests and human potential through multiple actions rather than one fixed subject.

Picture 23: Active play space – teacher set the road map and put the model of the school in play corner

The use of active learning spaces in case B appeared in both indoor and outdoor activities as part of the everyday routine. A whole series of teaching styles could be seen in the weekly routines and the class teachers used their knowledge and sense to plan various types of classroom activities along with the children. Teacher B1 designed an integrative approach using sensory experiences, visual experiences (photographs), drawing, making models and free play activity to demonstrate the children's learning. He used different materials and tools such as photographs, storybooks, playdough, cardboard, paper or charts to develop the children's understanding and enable group discussion. Pupils were encouraged to hone their skills, build their imagination, make connections, make decisions, as well as work as artists, authors, investigators and creators through their creative works. They explored and created their own style of map and recreated their building, locating and relocating their objects on the map in the play corners.

4.3.6 Positive learning atmosphere: love, happiness and satisfaction in work and play

The happiness and satisfaction of learners has been noted as crucial to mental wellbeing (National Education Act, 1999). The elicitation of positive emotion lets learners absorb information with enjoyment and humour, which is more likely to create meaningful moments and help children to better remember the experiences (Treffinger et al., 2013). In contrast, when the happiness and satisfaction was missing from the learning process, the atmosphere became serious and limited the sense of discovery.

The need for love and affection was obvious in the Early Childhood Curriculum, which noted that teachers should cultivate children with love, care, and provide the sense of safety and allow them to learn freely in order to develop their imagination and creativity and that educators should develop children's creativity with a polite manner and a sensitive approach. This conforms to the views of the class teachers who noted that happiness is a source of curiosity, imagination, and creativity.

Teacher A1 stated that:

> Creativity in the classroom also involves happiness. Children who are creative would be more pleased and enthusiastic to do and learn about everything else.

Teacher B1 stated that:

> Creativity can found in art. Art is about play. And play links to creativity and other thinking skills. It also related to happiness and the beauty of things.

In the observations, happiness and satisfaction were seen to occur when children became inspired and accomplished their work with originality and novelty. Children also showed their positive emotions and energy during engagement in small group activity. For example, children were spontaneous and relaxed when they engaged with the art activity (see in observation 45). Children had an enthusiasm and curiosity for what they wanted to do before engaging with their works, sharing their stories and artefacts with their friends. They showed a sense of aesthetics that motivated their imaginations and created their original ideas, which,

in turn, represented their daily experiences and social context. They often said, ‘I love… (their story or the object in their work)…’ or ‘Do you like (my work)?’

Observation 45: Crayon drawing

A group of three children sat on the art table with their notebooks and crayons. They were drawing with only a little conversation between them.

- Child UM: I love this sweet, Thong Yod
- Teacher: Great
- Child UM: I have had it before
- Child JJ: This is a cake
- Child P: This snack is in the Doraemon cartoon
- Child LN: This is Thong Yod
- Child N: This is Chan

When the children had completed their drawings, they were asked to describe what they had drawn. The teacher wrote the names of the pictures and the children’s descriptions with the date and children’s names. The children then put the notebooks back in their folders.
(Observation in School A 19 February 2015 9.30-9.50 a.m.)

From the observations, it was noted that the positive emotions create a sense of purpose for a child and motivate them to convey the images in their mind. The children began the story of what they ‘love’ or ‘love to do’ and linked this to their prior experiences. The main topics of a popcorn machine and fish challenged them to ask questions and exchange information. Through their different passions, the children revealed their ownership of their drawings. The conversations of the children seemed to enable the exchange of information and emotions, which was the source of new ways to see people, objects and stories. The peaceful time doing art enabled the children to spend time creating their work, communicate with their peers, think more deeply and elaborate on their artefacts.

Furthermore, the link between positive emotion and creativity could be found when the children were proud of what they had done. The satisfaction from their work and play kept them exploring and maintained their involvement in new difficult or challenging tasks. This

agrees with the idea that a supportive climate, in which people listen to each other and share attentive feedback, creates opportunities for trying out the constructive use of positive possibility (Lauer, 1994). This could be seen in the small group observation when children gave compliments, took in advice or followed suggestions. For example, in the house corner, two children were playing in the kitchen areas. They started making some food and one found a food recipe in the basket, as described in observation 42 below.

Observation 42: Play in the kitchen corner

- Child D: Hey I found a recipe in the food basket. (smiles)
- Child J: Wow, can I see that?
- Both children were looking at the recipe cards.
- Child D: I can cook something. Do you want to eat fish with red sauce?
- Child J: Do you mean tomato sauce? You can make it, but I want to eat papaya salad with king prawns.
- Child D: Wahhh, I don't have prawns, what do you think about fish? I got lots of fish.
- Child J: Fish is OK. I will make soup for my grandmother. We can walk past the forest to see her.
- Child D: I will get the salad from the garden and I can make a lot of salmon salad for grand mom too.
- Child J: Okay okay, you can make it spicy. I've learnt how to eat chili now.
- Child N: Wow, you are so good!

They continue cooking on separate tables in the kitchen area.

(Observation in School A 21 February 2015 10.30-10.50 a.m.)

From this observation, it was clear that the children had developed a sense of belief and satisfaction in their achievements. They showed their conscious awareness of one another's thinking by making the symbols, recombining the ideas for object representation, and manipulating them with their emotions. The conversation began with the excitement of discovering the food recipe in the food basket. Then, child D started asking about making fish with red sauce, while child J wanted to have salad with king prawns. The negotiation was agreed whereby child D was offered salmon salad instead of fish with red sauce or king prawn salad. The satisfaction during their play showed through their smiling expressions and the

agreement of what they wished to do within the limitations of their conditions. This related to the ability to transform insights and thoughts and express positive and negative feelings with the groups, which over time fosters within them the symbols and systems of representation and creative problem-solving skills (Hoffmann and Russ, 2012).

It is clear that the children conveyed the satisfaction inherent in their work by sharing their own feelings and asking the opinions from the people around them. The process of imaginary play and generating ideas led to great satisfaction as rewards for new possibilities. When the children created unique or original outcomes, they became lively and more productive in various ways. On the one hand, many times the children did not seem to identify what they were creating or making until they were at least partly finished with it. This implied that the importance of the creative work is in the joy the children obtain during the process of exploring and creating as much as the new creation or invention. The children achieved the kind of enthusiasm and satisfaction which have a powerful and positive impact on their learning and work. The positive emotions displayed during their work and play kept the children on-task and maintained their involvement in an activity that challenged them and encouraged risk-taking in a controlled manner. Thus, it is clear that the happiness and satisfaction of work and play are of key importance in persisting in an activity and encourage a willingness to learn from new or unusual circumstances. Such an approach encourages children to show a sense of self-belief, pleasure, and conscious awareness of their own thinking which is an essential process in enabling creative achievement in the preschool classroom.

Summary

Creative thinking happens best in the environments that offer children the freedom to think for themselves, deliberate problems and come up with the new creations or discoveries. From the data in this study, the fundamental purpose of the creative environment is the encouragement to play in the play corners, using natural materials to enhance children's creativity, and engaging with art tools, colour and materials, as well as music and song, active learning spaces and a positive learning atmosphere.

High quality play corners incorporate creativity through art and play experiences. Music and play within literacy, mathematics, science and other projects works. However, creative activities such as art, music and play often took place in isolation in play corners and on the art tables. As observed, the quality of materials and the organisations of the areas are crucial. In case A, the play areas are well-organised, which has the result of giving children choices from their interests, predictability and open spaces for independent play. Many observations in case A demonstrated that children obtain freedom and accessibility in play corners to play and weigh up their own ideas and show their creative representation to their peers rather than under the higher supervision from an adult. Meanwhile, in case B, when the play corners were poorly organised and small, offered less space and freedom to the children to move around while they work, less time to complete their work, and fewer choices of toys, objects and equipment. This represented the reports from the class teachers that creative play is less important than the circle time which aims to meet the academic standards in the curriculum.

Using natural materials to enhance children's creativity and engaging with art tools, colours and materials that foster creativity offer children the chance to know what they want to do/play and became more independent from adults. Also, music and song is another platform for creativity. Children engaged with music, song and percussion. When art, music and play experiences are interwoven and varied, they give opportunities for meaning and rich learning opportunities in the classroom. Hence, these learning areas should contain developmentally useful materials such as the open-ended materials, natural materials, art tools and music equipment, which allow children to explore their environment, use their imaginations, and connect together the process of learning and the process of generating their knowledge and ideas.

Nevertheless, teachers play a big role in setting up the learning spaces and learning atmospheres in order to direct the temporal environment in the classroom. In both cases, teachers are responsible for setting up the play areas and developing experiences that include play-based and art-based activities as well as being centred around the interests of the children. Creative environments include high-quality set-up areas such as play corners and art tables or within other learning spaces such as natural materials, music and song and active learning spaces, as well as positive learning atmospheres. When teachers have an awareness of

children's interests, children are more likely to be able to make choices that match them. At the same time, predictability in play corners enables children to know what they can do and to explore, re-do, repeat, recreate and work more profoundly in their learning processes and outcomes day by day.

Therefore, this study has highlighted the key characteristics of a creative environment that are provided in school, including the physical environment such as learning resources, school documents and human resources like the classroom teacher. Besides this, it notes the role of the teacher to set up the elements of the environment to promote creativity: adequate freedom, challenging experiences, appropriate resources, a supportive facilitator, diverse and communicative colleagues, recognition, a sense of cooperation and a supportive organisation. The relaxing climate helps children to express their feelings and ideas without any pressure from the teacher. This can offer flexible opportunities and freedoms in order to make learning creative and memorable and influence their learning, feelings, attitudes and actions toward creative development.

Theme 4: The potential barriers that constrain the development of creativity in Thai preschools

This section investigates the influence of the perceptions, beliefs and roles of teachers over the creativity, culture and education in early childhood settings. The data analysis sequentially draws on the guiding research question as follows: *RQ4: What are the potential barriers that inhibit the development of creativity in Thai preschools?* This aims to understand the teachers' actions and attitudes towards the associated sub-questions, including IQ28: 'What are the barriers to the development of creativity in the classroom?', IQ19: 'What are the cultural or social contexts that influence the development of creativity in the classroom?', IQ20: 'How does the classroom context influence the development of creativity in real settings?' and 'What might help educators to develop creativity further in early childhood education?'

The overall data revealed that creativity is now mentioned in many places in the curriculum for Thai preschools and the teachers in the study placed importance on creativity during daily activities. However, the results also showed that there are still numerous limitations on

developing creativity in practice such as issues of seniority, conformity, academic learning, freedom within a framework, and the challenges of finding sufficient time. These were seen as the factors which influence the level of freedom, group acceptance, and behaviour control that create the supports or frontiers for creative development. This section, therefore, sets out to analyse creativity, culture, and education in five themes, as follows:

a) Seniority, respect for adults and respect for children
b) Creativity and conformity; motivation for unity and uniqueness
c) Creativity and academic learning
d) Freedom within a framework
e) Ideas about limitations of time

4.4.1 Seniority, respect for adults and respect for children

In the preschool setting, nurturing children is not only focused on academic learning or activity but is also based upon customs that emphasise calmness, politeness and good manners. This philosophy is prevalent in Thailand and helps guardians to cultivate their children appropriately. From this perspective, adults and children have their own principals and protocols about how to foster and control the behaviour of both adults and children with goodwill.

The seniority system is a traditional value in society. It is defined in terms of the adult holding strong powers to lead, support, command, look after, and control children's manners in the classroom. Children are expected to be respectful and humble and to ensure that their behaviour follows the rules that are set by adults. The influence of seniority values over developing creativity were noted in the responses from the class teachers when they were asked, IQ28: 'What are the barriers to the development of creativity in the classroom?' and IQ20: 'How does culture influence the development of children's creativity in the classroom'. They spoke about different perspectives on culture and on nurturing creativity in the classroom. For example, Teacher A1 explained that seniority is a set of social values that offers secure modes of behaving. She exemplified this with the proverb 'walking after an adult, the dog will not bite you' and the words, 'the elder knows more about the hot, shower'. This provides examples of the values of a teacher who holds notions of adult superiority in

leading and judging juniors. Nonetheless, the teacher noted the concept that a good child is expected to obey adults and to follow their senior authority rather than doing things or making decisions by themselves.

Teacher A1 stated that:

> Seniority in the classroom can hinder children in doing something on their own. As people say, 'follow in the footsteps of an adult, the dog will not bite' or 'the elder knows more about the hot shower'. For example, often when children want to do something, the adult may say, 'No, no, no, don't do that' You have to start from here', 'Come to do this first', or 'Do this, it is good'. And, if children disobey, they tend to be judged as naughty, misbehaving, or not a good child. This encourages children to obey adults or follow some instruction or a pattern every day and not to do anything on their own. So, in this case, that may be not much of creativity in the reality.

With these explanations, Teacher A1 explained seniority rules develop the social values of the power of adults to and the expectation of good children; nonetheless, they may hinder people's creativity. Terms such as 'follow in the footsteps of an adult dog, and it will not bite' and 'the elder knows more about the hot shower' reflect the beliefs that adults are very experienced and 'above' their offspring. From this view, high regard for the seniority principle is seen as constraining and limiting the development of creativity. Seniority values giving superiority to adults to control and regulate the younger generation's behaviour. This principle seems to encourage children to follow in the footsteps of their seniors or to imitate or do something that an elder has done before rather than play with their own ideas. In addition, the prevalence of the adult role relegates the freedom, self-confidence and self-esteem of the learners (Kemple, David and Wang, 1996). The excessive use of the role of the adult as 'superior' can create restraints on encouraging a learning atmosphere rather than offering a welcoming learning climate in which children can experiment with challenges or speculate about statements that move their own ideas forward (Treffinger, Schoonover and Selby, 2013).

Meanwhile, teacher A2 stated the role of the teacher is moulding children and fostering good behaviour, safely, and that this was the right approach to teaching. The teachers noted sayings such as 'the teacher is called "a mould of the nation" who preaches to children'. She pointed out the role of the teacher as one who was expected to encourage a child to follow the appropriate and socially expected way of living:

Teacher A2 noted that:

> Teachers are sometimes seen as moulders of the nation who preach to children. Teachers sometimes lead and command children to make sure of their safety and that everything goes the right way. But creativity is about something new, something different. It might be hard to create new things if that is seen as usual.

Teacher A2 stated that the expectation that teachers provide a 'right' and 'safe' way of doing things may limit people's behaviour. The term 'a mould of the nation' implies that the adult has the authority to determine what is 'right or wrong' or 'good or bad'. Furthermore, the words, 'It might be hard to create new things if that is too far from the usual' suggests the notion that creativity may not be applicable or appropriate when it appears too different from what people are used to or usually do. In this view, the adult seems to play a big role in both teaching creativity as well as fostering and moderating children's behaviour, which may inherently be contradictory concepts. Developing children's creativity, hence, depends upon how creative, inspired, flexible or strict the adult is. When children are surrounded with strict or rigid adults, the interaction between them and the children in their care could shape children's beliefs and thoughts about respecting adults and following all the teacher's actions and decisions rather than thinking independently (Deng and Zhang, 2011). This reflects the fact that the role of the teacher can either include preeminent power to decide the teaching and learning that leads and shapes children's ideas or else to provide learners with autonomy to promote their creative abilities.

On the other hand, some teachers commented that customs such as seniority do not influence the development of creativity in the classroom. They gave the reason that children can develop their creative thinking skills through the variety of activities and at the same time they can

learn how to grow up and settle down within social customs. The response below came from the questions ‘Do you think that seniority, tightly organised with the order of social rules, the norms to regulate behaviour, collectivist attitudes with an emphasis on social groups and harmony in the family and society, and concern with facing or gaining the social approval of the group influence negatively or positively on children’s creativity in the classroom?’.

Teacher B1 stated that:

> I believe that that is not true. I don’t think those work against each other. Creativity, tradition, and discipline belong together. Children need to learn how to behave in society. I believe that activities are more important for capturing children’s interest and attentions. We let them think out of the box but they need to learn their roles and manners. Creativity can grow within Thai tradition, customs, and culture.

Teacher B2 stated that:

> Well, creativity should not be so extreme or inordinate in the classroom. We need to let children learn social rules and offer some space for them to grow, discover and fulfil their skills. By the way, I still believe that balance is the key. In general, teachers tend to prefer well-behaved kids, which makes sense. However, if the framework of learning is limited to a small learning area or space, it could erode children’s creativity. From the other way round, the teacher needs to find a framework and make sure that it is an efficient way of learning but does not spoil children too.

The responses from teachers B1 and B2 revealed an awareness of the seniority system that has hindered children’s creative behaviour within the social framework. They noted the benefits of the seniority system in keeping children in order and the detriment of it in eroding a child’s confidence and limiting their creative expressions. This system is, in fact, one of latent attitudes that aim to control people’s behaviour in order to nurture good manners and good behaviour in order to ensure safety, and facilitate teaching the next generation what are seen as correct attitudes. However, these beliefs offer power to adults and may overlook the children’s potential; meanwhile, at the same time, this emphasises the value of ‘a good child’

rather than a ‘creative child’. The preeminent concern is over the social values and traditions regarding the image of the good child who is polite, humble, and obedient while the need for creativity is not necessarily emphasised as valuable. The discussion led to a point where the issue of the creative child and the good child was addressed. Teacher A1 noted that the creative child is ‘a child who can make creative artworks or other products and a creative child is flexible’ and ‘a child who knows how to cope with problems or unfamiliar situations’. Meanwhile teacher A2 noted ‘a good student is a quiet child’, ‘a good student who obeys and follows the classroom rules’. Such attitudes were confirmed by many observations that showed that the teacher that set the activities and also controlled children’s behaviour reinforced the ideas of a ‘good child’ within traditional social norms. For example, when children listened to adults and did things that the teacher said, the teacher would offer motivational words such as ‘Well done’, ‘Good morning, everyone. I am very proud of you’, and ‘Good, please sit nicely and concentrate’. Meanwhile, there was some negative reinforcement, such as ‘Listen to me’, ‘Be quiet, do not speak when the teacher speaks’, and ‘Come here close to me, say thank you to me’. This happened when children did something deemed wrong or made a mistake. Happily, this did not seem to discourage the children. Such doubts about where the creative child is and what their role is in the classroom restricted by ideas about seniority is crucial in Thai culture. This was revealed by the observations that many times children were keen to explore a creative experience but adult controls took away the power of the children to engage in the activity by themselves.

Overall, the researcher argues that the restrictions of seniority hinder and inhibit the ownership of creative expressions. The pre-eminence of adults shapes the boundaries of freedom in the classroom and the concepts of leading or following leaders. Children were mostly quiet and stayed in order for approximately an hour in every morning session. They tended to follow the instructions and the sequence of learning. This illustrated the power of the adult in controlling children’s behaviour with the consequence of control over ideas and expression. Being a good child seemed to be more important than being creative. As Kemple and Nissenberg (2000) showed, in order to obtain a creative learning environment, society needs to show ‘respect for the child, stimulation of independence, and an enriched learning environment’ (p.68). Children of this age should have a sense of childhood where they are able to express their feelings and also accept the roles of others. Respecting children should

be acknowledged equally alongside respecting adults. The ‘power of learners’ in the classroom should be recognised and teachers need to support and trust pupils to learn, explore and fully use their potentials. Teachers should believe in the power of learners who are able to engage, develop, and share their thoughts and express their actual feelings through a meaningful context without too much control and judgement.

4.4.2 Creativity and conformity: motivation for unity and uniqueness

Among several creative pedagogical approaches in preschool classrooms, conformity appears when children equate creativity with unity. Children are taught to think and convey their creativity through art activity and free play yet they are potentially restricted by group norms. The norms in the classroom are based upon the informal rules or unwritten regulations that tell them how to behave. Teachers use the social contract to allow them to give positive or negative responses to children. As with seniority, discussed above, the idea behind conformity is that it aims to preserve children in a peaceful situation and avoid disorder.

It is important to note that in the classroom, motivation was employed within a norm of group conformity. The group motivation, which was led by the teachers, seemed to influence the children’s behaviour and the direction of learning. Both positive and negative reinforcement was used to control the preferred behaviours and the actions of learners in the classroom. For example, verbal appreciation included simple words such as ‘great’, ‘excellent’ or ‘well done’ or guiding with questions; the ‘body language’ took the form of a head nod, smile, or clapping hands, and the form of ‘giving opportunities’ such as responding with ‘thanks for all your ideas’, as well as guiding children’s learning and behaviour. These were all used for rewarding children when they gave the right answers, or were able to describe the learning content, and they were offered to those who followed the instructions and classroom rules. The smiling reactions of the children showed their fulfilment when they gave their answers and received good responses. The positive reaction of the teacher seemed to motivate children to show their thoughts and understanding and reminded them to keep within the bounds of what was deemed good behaviour. These positive reinforcements gave children satisfaction and direction in what to do or what was expected to be done and were used in reactions to those children

perceived as ‘good’, which gave them a sense of acceptance and occurred commonly in the classroom.

In contrast, the negative reinforcement from teachers and peers motivated creativity within the parameters of the group norm but somewhat made the children feel like failures. For example, when teacher A1 said ‘that is not good’, ‘I need to tell you every time how to behave’, ‘Who speaks, I told you to be quiet?’, these examples seemed to be used to keep the children behaving or doing something seen as appropriate, which only served to keep the children quiet and listening to the adults. This represented the strong influence of collectivism through tightly organised social rules and concerns about gaining social order and harmony (Craft, 2005).

Indeed, one of the key goals of education seemed to relate to keeping children tranquil. Teachers noted that it is important to keep pupils in the classroom quiet and to teach them how to behave in society, as shown by the neatness of the classrooms. When a child obeyed, the teachers often used group agreement to support and control children’s actions. For example, teacher A1 said,

> Similarly, in case B, a child showed their action to represent himself, the class teacher asked all the children in the group, ‘How does everybody like his pose?’, then the whole group of children agreed, ‘Yes, we like it’. The teacher convinced all the children to clap their hands for the child by saying ‘applaud for our friend’. All the children then clapped their hands together.

In this case, this situation seems to be a matter of having both the advantages and disadvantages. The teacher rewarded the children by asking their opinion and for the recognition of the whole group. Motivation, through applause, was used within normative group conformity. It presented examples of the recognition of the group that reinforce positive behaviour and corrected inappropriate behaviour during the circle time activity. The group motivation provided a positive learning atmosphere and provided support for children to express themselves when the teacher asked children to applaud a child who did good things. The reaction of the children was positive since they obtained such pleasant feedback. However, the children often showed a lack of confidence in making their decisions. The norm

in this case was that a good child is a good follower. Children learned to listen and follow the teachers or leaders rather than showing or generating their own creative thinking skills. This conformity exhibited in the classroom demotivated the children's creativity in implicit ways. This group agreement may keep the peace within a group but personal judgments and criticism of a learner's behaviour should be eliminated. The school and teachers need to educate children in a manner that aims to cultivate explicit results in the children's creative development rather than reward them for behaving in the 'right way'. The classroom should offer the learners the sense of belonging to help them to discover their true potential and express their will or thoughts for their creative achievements.

In this aspect, we can see how the group motivation might influence the whole classroom climate through negative reinforcement as reinforcement from child to child ensures teacher control and makes children less willing to be spontaneous and natural. The teachers and children frequently asked for group agreement when giving either positive or negative feedback in the classroom. This showed respect for a small amount of disagreement or difference as acceptance. The classroom may be set with open-ended activities and materials yet the conformity in the classroom seems to encourage children to behave according to the group agreement. Hence, it is suggested that children should have the freedom to react to and encourage their classmates. Performing positive reinforcement between child and child or teacher and child should not stand in the way of the individual child and is preferable to conformity being the norm.

During the preschool years, individual differences can be seen in the need to conform, willingness to try the difficult, freedom to explore and inquire, and other characteristics which probably relate to expressions of creative ability' (Stark-Weather, 1964, p. 6). Nonetheless, many of the personality traits associated with creative children are viewed as negative. Some highly creative children may be perceived as anti-authoritarian, demanding, uncooperative, disorganised, sloppy or absent-minded (Davis, 1986). For example, Torrance (1962) alluded to the relationship between creativity and conformity when he stated that it is the responsibility of the school to help the creative child become 'less obnoxious' without diminishing creativity.

In order to better understand and nurture children's emerging creativity, we must focus 'not only on behaviours that are clearly recognizable as outstandingly creative but also on youthful behaviours that are less obviously identifiable as creative' (Fishkin, 1999, p.4). Amabile (1986) found that very creative people experienced difficulty in school because they were 'being a little too creative' for the school system. Consequentially, 'Children who most strongly display these creative behaviours are often punished and discouraged by parents and teachers who find creative behaviour inconvenient and difficult to manage' (Torrance, 1981, p.2). Perhaps, these 'negative' behaviours associated with creativity should be examined and possibly reinterpreted. Additional research needs to be conducted in order to better discern the personality traits related with creativity.

The findings of this study offer support to the conceptualisation of 'freedom of expression' as a new term to be used in association with conformity. The recognition that both the behaviours of the nonconformist and the conformist may undermine creative potential is an important step in identifying the essential characteristics of thinking that enable one to function as a creative person. The child who is free to accept or reject choices based on personal preferences may be more likely to be creative and able to creatively solve problems. This freedom is evident in the behaviour of the creative person who can conform or not at will. This person may appear unconventional, but in spite of this unconventionality, he/she is sufficiently attuned to the ideas of others. The unconventional behaviour of the creative person occurs in the course of being creative and not as a goal in itself. This new conceptualisation of the relationship between creativity and freedom of expression provides a better understanding of the processes that may inhibit and encourage creativity in young children.

4.4.3 Creativity, academic learning

The main obstacle to developing creativity seems to be the social value and expectation placed on developing skills for academic learning. All parents have an expectation for their children to achieve in the basics of reading and writing, which leads to a focus on training children to follow the traditional pattern of education rather than to create or do anything uniquely by themselves. However, we may teach them indirectly. We should note that there are many

schools in Thailand that focus on teaching children to read to the exclusion of creativity since they are worried about accusations of not focusing on academic learning in primary schools.

The classroom observations revealed evidence of the importance of challenges in the classroom which corresponded with the teacher's opinions about setting challenging formal activities in their teaching. However, the challenge and motivation for creativity also happened in daily routines. The high volume of academic pressure on young children was noted as the main obstacle for developing creativity in the classroom. This is vividly shown when the teachers were asked, IQ26: 'Eventually, what do you find difficult about fostering creativity in real settings?'

Teacher B1 stated that academic learning can present more or fewer challenges in the classroom but lots of children's work can take away creative learning time. She noted that,

> The understanding from society overall. Adults tend to teach children to read and write, and to be a good child for society. The consistency of creativity and challenges in the classroom depends on time and learning content… children improve their creative thinking skills through large group activities such as circle time, art, and play. But teachers need to work harder to deal with learning objectives and opportunities for creativity together. ***(In this case, do you mean creativity and academic learning do not go along together?)*** Well, they do. But, there are so many activities for children to do each day.

Teacher A2 explained that,

> It is the academic expectation that creates the restricted form of learning for certain goal. ***(What is the influence of academic environments on creative learning in the school?)*** There is a problem with the balance between creativity and literacy learning. ***(How does an academic environments such as literacy in preschools create challenges or pressure for creative learning in the school?)*** Some children are expected to be able to read and write at an early age. Those children who felt the pressure to learn writing and reading at this early age tended to have very little time to play and learn about the other

> things or they do not have positive responses to their creative ideas as there is a fixed way to move in the classroom.

Furthermore, there is an issue of the priority of academic goals over creative learning. Teachers B1 and B2 mentioned the balance of time management, work, and play in the daily routine that influenced the space and time for creativity in the classroom. Indeed, she explicitly mentioned academic work seems to have more priority than play or learning with challenges.

Teacher B1 stated that

> I think creativity has been placed in early childhood education but it is not strong enough. ***(What do you mean by that?)*** There is not enough time. There are many activities in the school as you see on the weekly schedule. ***(What is an obstacle that interferes with creative learning?)*** Sometimes, the literacy is still a significant aim in the school. ***(How does an academic environment such as literacy in preschool create challenges or pressure for creative learning in the school?)*** It takes time and it takes priority. This depends upon parent's needs and attitudes. Many parents have an expectation for their children to read and write which leads to a focus on training children to follow the traditional pattern of education rather than to create or do anything uniquely by themselves.

Meanwhile, teacher B2 believed that,

> I believed creativity, challenges, and children's involvement are embedded every day and in all activities… But, you really need to balance between challenges, work, play and time management. And that is all a challenge to me too. ***(Can you tell me, between 'challenges, work, play' which comes first in the classroom?)*** Well, of course, work comes first, but it comes with lots of fun.

The responses from the teachers demonstrated their awareness of academic environments that run counter to the idea of creative learning in the classroom. They revealed that the academic expectations came from multiple pathways, such as educational goals in the curriculum, which

create pressures on the teachers and children to achieve the academic expectations, leading to a rigid classroom environment and formalised learning methods. This idea agrees with the work of Elkind (1981), who debated that giving formal instructions in reading or mathematics or providing worksheets to young children goes against a child's natural disposition to learn by their own experience or action. This is because when teachers take restricted goals or styles of learning as a priority for children, they seem to interfere with children's self-directed learning and can make their guilt and anxiety increase and thus interfere with their social development, generating less positive attitudes toward creative thinking processes.

The challenges of education in Thailand might be similar to in other parts of the world, where academic skills such as sciences, mathematics, and literacy are considered more important than the other skills. This agrees with Songsaree (2001) who said that education in Thailand is focused on learning content more than on thinking skills, and children spend a lot of time as passive learners working with some assignments rather than as active leaners. This might be a limitation to promoting creativity in Thai education. For example, 'Children created collage art work with 16 stickers' and children were asked to draw and colour pictures. During the activities, children made collages of different pictures such as a house, houses along the river, a house in the garden, a house with a tornado, a Christmas tree, and a robot. For most of the time, children have to concentrate on following the adult's instructions rather than spend time freely to produce their original ideas and be expressive in their work.

Observation 12: Collage (Individual work)

Four children chose different shape and colour stickers. They started making collage pictures on the blank paper. While the children were doing this art craft activity, one of them started singing Christmas songs.

- Child A: We wish you a merry Christmas, We wish you a merry Christmas and happy new year
- Child B: I would like to make a house. This is Chaopraya river with lots of buildings
- Child A: Mine is Christmas
- Child D: Mine is a house in the garden
- Child J: I have a Christmas tree
- Child B: This is ladder for going into the house and there is a tornado
- Child D: What is a tornado
- Child B: It will come when the sky is getting dark
- Child J: Have you finished?

Children started counting how many pieces they used in their work.

- Child B: 1 2 3 4 5 6 7 8 9 10 11 12 13 14…
- Child D: No, we have to reach 16
- Child J: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18..
- Child A: That's too much
- Child B: It doesn't matter (smiles)

The observation showed that the children enjoyed doing their art work. However, there were some children who worried about the instruction to create the picture with a certain number of stickers (16). In this case, the children focused on counting the amount of stickers that she placed on the paper rather than the picture she created. The number became an anxious matter for some children. This may indicate that the challenge involved too many complicated tasks and thereby changed the open-ended activity into a closed-ended activity. Children need to engage with meaningful and demanding work to develop the necessary skills and knowledge to meet the learning challenges. The observation showed that some children go through the task without specific task instructions yet some were worried and waiting to hear what the teacher would say. This is debated by Craft (2004) who noted that children do not find it easy to transfer learning from one area to another or one domain to another. Knowledge and skills of creativity are context-specific and the leaner may simply neglect to focus either on the academic aspects or the creative side. Yet, it was suggested that adults can help children to relax and to make connections between the knowledge and creative skills by providing time and space for children to pick up the academic learning goals and still have enough time to engage in new activities, to experiment and analyse ideas for the new creation or discovery.

Indeed, many observations demonstrated that children received specific instructions related to artistic works but no strict instructions for creative requirements such as the colour or patterns to be created. This is debated in the interviews with the teachers, who noted that the problems of academic learning do not come directly from the academic materials such as the worksheets or text books, but that this had influenced the priority of the subjects and domains of learning. Since literacy and mathematics remain essentials in education goals, in a day, children are required to complete all the tasks that the teacher provides before spending their own time freely in the play corners. Some children who spent more time completing tasks or making arts and crafts will have less time in free play. That means not all the children would have adequate time and opportunities to engage with all activities. In this sense, the school should position the idea of developing creativity as equally important as literacy or other academic skills. Developing creativity in the classroom should be a healthy element to support other domains of learning to serve children's inner selves, skills, thinking ability and knowledge construction. The combination of knowing what and knowing how that focuses on procedural knowledge and conceptual knowledge makes it essential to balance academic

learning, such as mathematics, with creative work in order to create a good balance of structured, unstructured, and semi-structured activities to support children to develop their creative potential in the classroom.

4.4.4 Freedom within a framework

Freedom in the classroom appears in terms of the opportunity to take action and the option of alternatives in their day-to-day activities in order to originate their creative outcomes. The interviews with the teachers showed that they were positive about their role in giving freedom and openness in the classroom. One class teacher told the story of how they provided that freedom and openness, stressing the importance of free access to open-ended materials and opportunity and the ownership of children's ideas.

Class teacher A1 said,

> Children are learning how to work better through more open-ended activities and they have the opportunity to develop more creativity. I set different art activities and filled play corners with a variety of toys. Children have free opportunities to choose and play in free play time. I observe and sometime ask them questions to stimulate their ideas.

Class teacher A2:

> Children have the freedom to choose the activity they want to do each day… I used open-ended questions and open-ended activities for them to post as many answers as they can and allow children to be brave to show their ability and thoughts.

Freedom appeared frequently in small group activity, such as an art activity, creative activity and free play in the play corners, where it was clear that children earned freedom more during small group activity (as presented in Picture 23).In both cases, freedom was granted in free time when children could choose to play in their chosen corner. For instance, a child spent time in the book corner, telling a story to his friends. This showed that there is more

conversation and humour when children are free to choose their activities and are enabled to play anywhere they wish.

Picture 24: Children are playing with paper boxes in play corner

In the play corner, children had the opportunities, autonomy and resources to make decisions about their own learning. Children demonstrated enjoyment and engaged in conversation. Some of them talked about the artefacts of their work while some were singing a song while they were working. As we can see, children have the right to participate and make their own choices in small group activities. They seemed to enjoy learning about new things and developing essential skills. The overall atmosphere seems to allow the child to feel free to communicate, discuss, participate, and build their sense of ownership during the activities.

Picture 25: Picture of children's artefacts represent the favourite characters from Hansel and Gretel storybook.

Also, in the art activity, children obtained the freedom to choose their favourite activity to start with before moving around to complete all the tasks of the day. They spent much time engaging in and completing their tasks on their own. Instead of distributing the information and asking the fixed questions to test the children's knowledge or control their behaviour, the

teachers' main role is explaining and giving information and instructions to guide the children in what they are expected to do in each activity. For obvious reasons, the role of the teacher shifted from leader to facilitator. They play a role in observing the child's interests, needs and possibilities, and supporting the individuals earnestly. The learning activity turned from passive learning to active learning. The predominance of the child's role creates a flexible learning platform and more relaxed learning phenomena. The children showed their excitement, enjoyment and willingness to express their thoughts, emotions and experiences with their peers. This established the motivational context which gives them the intrinsic motivation and the support a child needs to reach their goals and learning processes relevant to their experiences in order to gain the ownership of their creative process and product.

Compared to play in circle time, freedom was given as a limiting factor. Much of what children are free to do was offered by the teacher as a series of choices that were appropriate based on the classroom rules. In large group activities, more freedom can be obtained with good behaviour and some was restricted based on disobedient behaviour. Teachers often required children to behave nicely, keep their hands on their laps, and follow the instructions. Many control phrases were used such as 'I will choose the best behaved child to come and help me to "play" or "participate in "the activity'. For example, after teacher A explained the art work of the day, she stated that, 'I will let nice children who sit nicely, be quiet, and have good behaviour choose the activity first'. Then, she called a child to choose their preferred activity first. Similarly, in case B, the teacher asked the children to arrange the school playdough on the paper map to make a 3D map for their large group activity. The teacher said, 'I will choose only good children who sit nicely. Children who are still chatting with friends will not come and help me to build the map'. We must note that this did have the desired effect since the children were in order, sat straight and still, kept their legs together and put their hands on their laps. Such behaviour is strongly commended in Thai classrooms, but we can see that much of the time in classroom is highly teacher-centred in this way. The teacher then chose some children to take part in the activities, as shown in Picture 24 below.

Picture 26: The school 3D map

In fact, freedom in large group activity seems to be freedom within a frame that children are free to participate within some rules. Children who obeyed were invited to participate in the activity, while those who did not obey were never selected. This showed the conflict between ensuring children's ideal behaviour and the desire for freedom for children to engage with dynamic and playful experiences. This was echoed in the opinions of the teachers – that discipline is a key issue – as we can see below:

Teacher A1 stated that:

> Teachers tend to prefer well-behaved kids, which makes sense. We need to find a framework and make sure that it is an efficient way of learning but not spoiling children too.

Teacher B2 stated that:

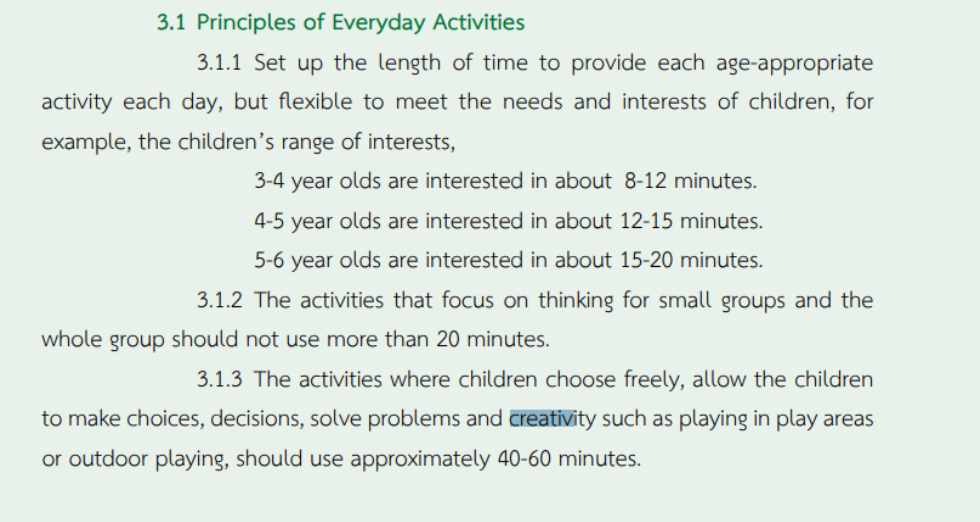
> Freedom is good, but too much freedom might be a mess. Children need to know what they have to do in the class too. You see, when I am talking to you now, they are very messy. (Children are running and screaming in the class, the teacher says to them, "Calm down, slow down everyone".) …Look at this: too much freedom. They need to know the limits: not to be too loud and not to hurt themselves or the others.

As has been shown, there are many dilemmas presented by the idea of freedom and sensitivity of classroom context when offering the opportunities for children's creativity. The format of small group learning offered opportunities where the children were free to choose and were able to express themselves verbally and physically. On the other hand, the over-abundant restrictions on large group activity limited children's self-determination and creative

expression at times. This aligns with the warning by Craft (2002) that the limitation of freedom can hinder the possibility of being creative, yet too much freedom can be confusing for children. This indicates that the right balance of freedom is an ongoing challenge in preschool classrooms– a challenge which is especially relevant in Thai schools because of cultural nuances that demand high levels of respect from children.

4.4.5 Ideas about limitations of time

The school curriculum includes recommendations about the organisation of time in preschool which state that time use is age-appropriate and also explains the types of activity recommended for young children. It recommends that children aged 4-5 years experience activities of approximately 12-15 minutes in length. Also, the activities that focus on 'thinking for small groups and the whole group' should not be more than 20 minutes long. On the other hand, the free activity where children have the independence to make choices and decisions, solve problems, and engage in creativity et cetera should be approximately 40-60 minutes long.



3.1 Principles of Everyday Activities

3.1.1 Set up the length of time to provide each age-appropriate activity each day, but flexible to meet the needs and interests of children, for example, the children's range of interests,

3-4 year olds are interested in about 8-12 minutes.

4-5 year olds are interested in about 12-15 minutes.

5-6 year olds are interested in about 15-20 minutes.

3.1.2 The activities that focus on thinking for small groups and the whole group should not use more than 20 minutes.

3.1.3 The activities where children choose freely, allow the children to make choices, decisions, solve problems and creativity such as playing in play areas or outdoor playing, should use approximately 40-60 minutes.

Figure 6: The Early Childhood Curriculum (B.E. 2560, p.49)

As Figure 6 above reveals, the curriculum gives clear guidance as to how early childhood programmes should divide time into easy and manageable blocks. Time for creativity is referred to in the activities section (3.1.3) which states that children should have freedom and

a chance to make choices and decisions, and engage in play. On the other hand, the timetable for daily routines showed that time allowed for children's thinking processes are varied, depending upon the types of activity. In case A, many observations showed that children spent time in a sequence of homeroom time, circle time, creative art time and free play time. Children spent approximately 8-15 minutes in homeroom time; 45-60 minutes in circle time; 30-45 minutes in creative art time or free play time. In case B, children tended to spend time in small groups either in creative art or free play activities since they had some additional activities such as library time, computer class, swimming activities, English class and physical education for 60 minutes in their daily routines.

However, the issue of time and quality of teaching and learning was a concern of the participants. The responses from the class teachers noted that the time allowed for freedom and trying out things in small group activities was limited by the learning priorities. Children spent a lot of their day in circle time getting the information before moving to the art activity, which, as discussed earlier, is the platform to express their originality, novelty and ability to elaborate. Worse still, free play had the lowest priority out of the three main activities. Children could enter the play corner only when they completed all their work or tasks after the arts activity. It seemed that some children had opportunities to learn (in circle time), work (in art activity), and play (in free play), while some of them might experience only learning (in circle time) and work (in art activity) but were excluded from freedom in free play time in their daily routines. This was asserted by one class teacher, who stated that children did not have enough time to truly play and develop their creative ability.

Teacher A1 said that,

> It is not easy to set enough time and opportunities for children to play freely because the time for free play is limited by the learning schedule or other school tasks. The limitation of time for fostering and assessing creativity seems to stem from external factors such as time management and the priority of academic learning over creative skills.

Teacher A2 said that,

> We wish to promote children's creativity but there is not enough time. There are many activities in the school, as you see, on the weekly schedule. Sometimes, literacy is still the most significant aim. This depends upon parents' needs and attitudes. Our school does not focus only on literacy so some parents will take the kids to the extra classes.

Teacher B1 noted that,

> There is little time for children to play. In our school, children have so many different activities outside the classroom such as art, going to the library, swimming, computers, music and movement activities. When we are back in the class, we need to do circle time and free-play activities which are linked to the main theme each week. So there is only little time for kids to play freely.

Despite the fact that teachers had an awareness of the importance of time for ideas and aimed to raise the profile of creativity through playful learning, challenges, and supportive motivation et cetera, teachers also noted that academic learning has priority over creativity.

The teachers reported that, in a small group activity, children obtain freedom, time and space to do, see, think and use their imaginations to explore the possibilities of what they can do in certain situations and that this helped them originate new ideas and made learning become meaningful. Yet, circle time still took the majority of the amount of time deployed, while children spent less time in small group activity or free play activity. This was debated by Ekvall (1996), who argued that the amount of time children use for classroom activities influences the elaboration of new ideas. This is also discussed by Craft (2004), who noted that quality of time spent in involvement that encourages creativity is significant.

An essential idea in relation to young children's deep engagement is that they spend continuous time in their play and exploration. In case A, when there is balance of time between circle time, art, and free play, children can appreciate the learning in large group and their creative art work and their creative play. In such a situation, children are not forced to think about what the next task will be, who will be disturbing or interfering or how hurriedly will they need to complete and to move on. They are really able to engage with their activity or

project until they determine how they are carried out. The quality time can enable children to work until they are finished or they may be unwilling to work in deep and meaningful ways.

On the other hand, in case B, many observations showed the rush in spending time in circle time, art activities or free play in a day since there were many other activities such as computer learning, swimming time et cetera. The variety of activities is a benefit in terms of the choice of learning yet children spent most of the time on choices made by adults rather than their own and they were rushed to complete their tasks and had little time to use their freedom and ownership to explore, try out and analyse their ideas. This contrasts with the recommendations by Sternberg (2003), which suggest that creativity requires time for incubation and children need to be deeply involved to foster their cognition and emotions well. In creative 'ideas-time' circumstances, children should not be rushed into ideas and should have enough time to investigate things in variety of ways (Lauer, 1994). It is emphasised that creative insights do not happen in a rushed situation (Gruber and Davis, 1988). Creativity requires time for preparation, incubation, illumination, and verification (Sternberg, 2003). Children have the potential for deep focus and sustained attention when they engage with meaningful situations and have ample time to formulate, process, engage, evaluate, troubleshoot, construct, rethink, rework and discover. Therefore, good time management can give children more dynamic and deeper learning in the zone of proximal engagement (Vygotsky, 1978). This helps children to create a point of view that is based on their insights and needs, builds up a representation of their ideas, and shares the value of their work with others. As a result, the balance of time provided for the main activities, which were circle time, art activity, and free play. need to be revised. The passive learning activities, such as circle time, should not predominate over the active sessions such as art and play activities. Children should have the right to spend time in activities equally in order to fulfil their needs and interests. Good and appropriate time management must be a seen as an essential factor that impacts on incubating and generating novelty and creative elaboration.

Summary

In summary, the research data revealed that knowledge, attitudes, and the role of teachers are the key influences on the teaching and learning in a classroom context. The classroom context

indicated an enthusiasm for love and affection, freedom, seniority, and classroom conformity. These influenced the levels of freedom, group acceptance, and behaviour controls which created the frontier for creative developments.

The potential barriers that constrain the development of creativity in Thai preschools were associated with the attitudes about educating children, which were observed as inherited from the latent social values, beliefs, and personal attitudes of the dominant cultural norms of Thai society. Many observations revealed a combination of seniority, conformity, love and control existed in terms of strategies to control children's behaviour and manners. The level of seniority and conformity gave prominence to the teacher's role in controlling a child's behaviour, which, in turn, discouraged learners' independence and confidence to freely take action and express their creative performance. Although there were plenty of creative activities evident, children were taught to follow the instructions and behave within the adults' expectations. In case A, various activities such as art, play, music, and group discussion were used to stimulate children's creative ideas and expressions; however, the overall learning atmosphere offered little freedom for individuals. Children relied too much on adult instructions and controls and they engaged in the activities within the framework of academic instruction and group acceptance placed on them by their teachers. Meanwhile, in case B, the teacher provided support with a lower level of classroom restrictions. Children revealed their enjoyment and their courage in exposing their ideas when they received such support. This reflected the fact that openness and trust can diminish the obstacles to creative learning and development in the classroom.

The findings affirmed that the social values and cultural context in the classroom stressed the doctrine and morality of seniority, filial piety, meekness, and pliancy which are the main tenets of Thai educational philosophy. This is debated by Tang (2008), who noted that people are living in a globalised world full of greatly different nations and cultures. It is, thus, truly important to be knowledgeable about different nations and cultures in the world. Yet, the cultural context itself was not the major negative influence hindering children's creativity so much as the social context, and adults' expectations about satisfactory learning and behaviour. A profound understanding and positive attitude towards early childhood education within educators, school administrators, and government agencies are the key features that can

unlock children's creativity. The cultural context in the school should set store by the positive attitudes and healthy development of children, both physical and mental, and reduce the overabundance of rules in the classrooms.

It was noted that time management seems to be an issue in both case under scrutiny. The timing of free play tended to have less priority in the classroom. Children spent a lot of time in large group activities before moving to an art activity which was seen as the platform to express their originality, novelty and ability to elaborate. Afterwards, free play was given the lowest priority of the three main activities. Only a child who completed all their work and arts activities was allowed to enter the play corners. Meanwhile, some children had opportunities to learn only in circle time and in an art activity but were excluded from free play time in their daily routines. This was explained by the class teachers as relating to a lack of time for free play as they needed to fulfil the academic learning following the curriculum objectives. This displayed there was some opposition to the positive encouragement to foster creativity in play corners and highlighted the contrast between the espoused commitment to play and creativity in the classroom and their actual actions. In fact, creativity was bounded by academic goals and issues associated with concern around time management in the classroom. Academic learning or content-based learning had priority over the creative arts, play, and exploration. The contradiction between the desires to promote creativity whilst also focusing on academic learning was apparent and was emblematic of an overall tension between the desires to use new ways to develop creative learning whilst at the same time

Indeed, the balance of time between the main activities – circle time, art activity, and free play – needed to be revised. The passive learning sessions such as circle time should not hold sway over the activities like art and play. Children should have the right to spend equal time in activity that fulfils their needs and interests. Well-organised timing must be considered as vital in its impact on incubating and generating novelty and creative elaboration. This will unfold the benefits of play and deliver efficient use of time for children to develop their creative performance in action.

Chapter 5: Conclusion

5.1 Introduction

This chapter offers a brief restatement of the main aim of the study followed by a discussion of the significance of the research findings and their implications. It begins with the initial aim of this study and the allied theoretical framework that was developed. The chapter then focuses on the main findings from the study and the associated recommendations for practice, structured around the four themes used as the framework for analysis in Chapter 4, which were derived from the main research questions. The chapter then goes on to discuss the further implications of the study, the limitations of the work and recommendations for further research. The thesis concludes with a final reflection on the study as a whole.

5.2 Main aims and theoretical framework for the study

This study sought to examine the concept of creativity in two preschool classrooms in Thailand (Bangkok). The key issue was derived from the importance of culture as a core concept in social science research since creativity was seen as the creation of social process, aptitude, and environment by which '…an individual or group produces a perceptible product that is both novel and useful as determined within a social context' (Plucker et al., 2004, p.90) which enables the generation of new ideas and also allows members of the society access to 'the various symbolic systems' (Csikszentmihalyi, 1999, p.333).

By reviewing the literature the researcher to sought to examine different conceptions of creativity. Centrally, it was noted that the Four Ps model developed by Rhodes (1961) emphasised the dimension of creativity in process, person, product and press. The concept of Four Ps creativity illustrates its different dimensions: for example, creative product is associated with terms such as 'novelty', 'originality', 'flexibility' and 'elaboration' in activities such as arts, play and literacy. Creative press refers to the physical environment and creative climate. This model helped the researcher to find out the foundation of what creativity is and where creativity is found in preschool classrooms. It was also noted that 'culture' is

central to the issue of the way that creativity is perceived and, correlatively, the ways in which it is developed in classrooms. The significance of the role of culture and its influence is related to Rhodes' concept of the 'creative press' (Rhodes, 1961), which influences the creative process, creative person, and creative product. It emphasises the teachers' perceptions of creativity, pedagogical approaches, learning environment and the school cultures. Crucially for this study, in Thai education, the tendencies towards the cultural norms of seniority and conformity and the Thai learning style are highly influential, and this has proved to be a major focus of this study.

5.3 Main findings from the study and associated recommendations for practice

Chapter 4 showed the relationship of the findings to the research aims and research questions. The themes in this study were drawn from the research questions and included

1. Conception and perception of creativity
2. Creativity and pedagogical approach
3. Creativity, school environment
4. The potential barriers that inhibit the development of creativity in Thai preschools

The main findings from the study are elucidated below in relation to these themes.

5.3.1 Theme 1 - Conception and perception of creativity

The conceptions and perceptions of teachers showed that their understanding and positive link to their practices to promote creativity in the classroom. Their first thoughts on creativity demonstrated their conceptions of creativity linked to 'making, creating, or producing the novelty, originality, uniqueness, diversity, flexibility and elaboration' that may be found in art and craft activity, music and movement, and language use. In addition, the teachers stated that creativity and imagination in terms of appreciation of the 'aesthetic' and 'beauty of things'. This reflects the values of creativity in terms of positive emotions, aesthetics, and

personal fulfilments that require the connection of the inner sense, nature, and reality – focusing on creative evolution.

The significance of creativity appeared in both school curricula: the 'Learning Experience' (School A curriculum) and 'Scope of Everyday Activities' (School B curriculum). Comparing those terms of creativity to the definition of creativity based on Rhodes' (1961)creative Four Ps, the explanation of each feature hints at the key ideas of creative process (creative activity, language and communication), creative press (toy, media and materials) and creative product (creative ideas, work product and beautiful things). Nevertheless, the creative press is focused mainly in objects rather than the creative environment. We would argue that it is important that the curriculum needs to capture creativity as a holistic process since creativity is not static. The integrated models of creativity can illustrate the importance of creativity and clarify what and where creativity is in the classroom as well as give guidelines about how teachers could create a supportive environment that fosters learners' thinking processes, emotions, and creative behaviours in the classroom. This research, therefore, wishes to raise the key importance of a creative environment being provided in school including the physical environment, social environment and temporal environment (IRIS Center, 2015). High quality environments should support the positive interaction between a) an individual, b) a field (culture and social context), and c) a domain, such as the organisation or structure of a body of knowledge (Gardner, 1994) in order to encourage children to work individually or as a group, and it also may help in planning to work freely.

Ultimately, some teachers (A1, A2 and B2) pointed out the complexity of perceptions of creativity. This reflects the need to clarify its meaning and key features to serve the complexity of its concepts in practice. Yet, it is important to bear in mind that the definitions of creativity in the classroom are flexible and there should not be any worry for teachers about what technical or 'book' definitions are, since what is most important is how they define and engage with creative activities and achievements in order to suit specific activities or contexts. This study recommended that school and education institutions should deliver the education platform for the teacher to extend their knowledge, concepts, and traits of creativity to suit different subjects, age groups of learners and cultural contexts. Also, the models of creativity that contain holistic processes, such as the Four Ps (Rhodes, 1961) or COCO (Treffinger,

1998), can help people to be aware of the dimensions of creativity and to feel free to employ their own cultural values and scope the meaning of creativity in order to fit it with the environment and situation.

5.3.2 Theme 2 - Creativity and pedagogical approach

In both cases, the curriculum was described as using child-centred pedagogy, yet it seems that teacher-centredness played a major role in classroom practice as well as pupil initiative in the control of instruction. The teachers had made efforts to bring integrative learning into the daily routines. This idea of integrative learning is supported by the ideas of creativity as process or thinking spiral (Kerry, 2015), which combines the prior knowledge and new meaningful situations, and various domains of learning can reach out to all learners in different dimensions. Moreover, creative teaching and teaching for creativity is the key practice for developing creativity in real settings. Each teacher has obtained different knowledge, aptitudes, and attitudes within their teaching strategies. Some focused on new, different, or interesting ways of teaching to activate children's potential and some focused on techniques that bring more excitement and are more efficient. The teachers emphasised the value of teaching strategies that give effective results in creative development and behaviour, and they sampled various activities and teaching approaches to cultivate children's creativity and teaching for creativity.

While schools and teachers framed a variety of pedagogies to increase their knowledge and skills, they often miss a chance to develop children's creative thinking. In both cases, there is an ambition to bring creativity into the large group activities such as circle time but there remains a strong focus on the expected learning objectives. This over-control from teachers creates stress, which has a tremendous impact on children's behaviour, feelings, and development. Creative learning, on the other hand, essentially involves children in analytical evaluative thinking. It is far from simply expecting children to give the right answers since the aims should be discovering information to generate new ideas. This supports the concepts in Bloom's Taxonomy frame, which stresses higher-level thinking as an important ingredient for creative thinking within an overall framework that covers cognitive (mental development), affective (attitude), and psychomotor (physical skills) development. Therefore, as part of the

pedagogical approach, the teacher needs to be aware of the level of thought within activities to ensure that they are providing a variety of experiences to support children's higher level of thinking, which can then lead to creative thinking. This is vitally important since they cannot begin to generate creative products or ideas if they have not developed their level of thinking.

5.3.3 Theme 3 - Creativity, school environment

The aspects of classroom environment and learning climate have been addressed to examine the influence of those on the development of creativity and creative practices.

Play corners seemed to be the learning space that most predictably serve children's interests and give open spaces for independent play. When a teacher set the play corners children's interests, children are more likely to be able to make choices about their needs and they are able to play and work independently. Nevertheless, the limitations of play corners can be seen as the quality of play space. As observed, classroom A had a well-organised space. The bookshelves and other furniture were used to separate the room into small corners. All materials and toys were available and accessible to the children. Learning pictures, photographs, and easels are placed at eye-level to encourage children to participate in the day's routines. This gives clear physical and visual boundaries that create areas that are comfortable and that lend themselves to their intended purposes. In contrast, classroom B had less organised space and poorer quality toys that were old and worn down objects. This presents a less supportive environment that allows children to know what to do and reflects the values of learning less than the play corners in School A.

Using art tools, colour and materials, the teachers help children to associate with the process of symbolic representation, concentration, playfulness, and a sense of aesthetics. Art tools, colour and materials were available in both cases. It offers children a chance to develop the symbolic representation and open the window that links children's notions, imagination, inspiration, and realities in order to manipulate them with their own works, which helps children to develop the process of representing the images in their minds. Similar to art tools, using natural materials allows children to express themselves through the open-ended features. Children can observe the features of natural objects. The unique shape and diverse usages of natural materials allow children to work and customise their own creations in various ways.

Besides this, most natural materials are very low budget or no cost at all. Yet, it does require teachers to pick up ideas of what they can choose and what to do with the particular materials.

Music and song allows children to move around and express themselves with their peers. Meanwhile, active learning spaces offer children the freedom to play and think for themselves, deliberate problems and come up with new creations or discoveries. Besides this, a positive learning atmosphere offers children a sense of safety and trust in a community-classroom context.

Indeed, well-organised spaces allow children to work and play independently or in small groups and to gather as a community. The accessible areas and placement of objects enable children to engage and develop their independence and skills. The quality and selection of materials include choosing toys, loose parts, natural materials and other learning equipment that can support developmentally and age-appropriate learning as well as linguistically and culturally relevant activity for young children. Furthermore, the teacher plays a significant role in setting up the learning areas and providing a learning atmosphere in the classroom. Music and movement, active learning spaces and positive learning atmospheres happen occasionally. These require teachers to include play-based and art-based pedagogy as well as pedagogy centred around the interests of the children to create the supportive learning spaces and atmosphere that encourage children's creativity including challenging experiences, appropriate resources, a supportive facilitator, adequate freedom, diverse and communicative colleagues, recognition, a sense of cooperation and a supportive organisation.

5.3.4 Theme 4 - the potential barriers that inhibit the development of creativity

The study affirmed that the social values and cultural context in the classroom mean the principle of seniority, classroom conformity, love and affection, and freedom , which are the main tenets of Thai educational philosophy, are stressed. These have influenced the levels of freedom, group acceptance and behaviour controls which created the frontier for the development of creativity and creative practices.

The seniority is the key factor that teachers pointed out as the cultural issue that most influences the levels of freedom and autonomy of children with which they can manipulate classroom activity. When the teachers were interviewed, they noted the seniority-restricted classroom and how it encourages children to be respectful and humble. Yet, it also led children to behave like followers reliant on adult instructions, controls, and critiques of what the child should and should not do, rather than a person who has his/her own potential to create or express their own creativity. This clearly shows during the classroom observation that fostering creativity was integrated into the activities such as play and arts but that children's autonomy and nonconformity was frequently ignored.

Conformity appears when children equate creativity with conformity. The group of children are inspired to have creative ideas and expressions, but they are potentially shaped by group norms. The norms increase the sense of conformity which keeps individuals from making 'chaos' in the classroom. As observed, children showed a lack of confidence when making their moves. The norm in this case was that a good child is a good follower. Children learn to listen and follow the teachers or leaders rather than develop their creative skills. This exhibited conformity in the classroom demotivates children's creativity in the most implicit ways. Group agreement may keep the peace within a group but the personal judgment and criticism of learners' behaviour should be eliminated. The school and teachers need to educate children in a way that aims to cultivate the explicit results of children's creative development rather than reward them for behaving in the 'right way'. The classroom should offer the learners the sense of belonging to help them to discover their true potential and express their will or thoughts in their creative achievements.

Love and control existed in terms of strategy to control children's behaviour and manners. The positive affection between teacher and child and child and child created the sense of wonder at new activities and created a supportive learning atmosphere that strengthened the positive relationship between the group's members. This fomented the openness and positive power that subsequently influenced children's creative expressions and manners afterwards.

Eventually, the 'ideas time' of free play tended to have less priority in the classroom. Children spent a lot of time in large groups before moving on to an art activity which is seen as the

platform to express their originality, novelty and ability to elaborate. Afterwards, free play held the lowest priority out of the three main activities. Only a child who completed all their work and arts activity was allowed to enter the play corners. Meanwhile, some children had opportunities to only learn (in circle time) and work (in the art activity), but were excluded from free play time in their daily routines. This was explained by the class teachers as relating to a lack of time for free play as they needed to fulfil the academic learning targets following the curriculum objectives. This showed there was opposition to fostering creativity in play corners and it highlighted the contrast between the espoused commitment to play and creativity in the classroom and the actual actions in the preschool classroom. In fact, creativity was bounded by the academic goals and issues associated with concern for time management in the classroom.

5.4 Implications of the study

This study exhibited an attempt to examine ways of growing and supporting creativity in early childhood education in Thailand. The concepts of creativity in the curriculum that were explored focused on general terms for creativity such as ‘novelty’, ‘originality’, ‘flexibility’ and ‘elaboration’ in activities like the arts, play and literacy. The interviews with teachers demonstrated that people in different settings employ similar words to describe creativity, yet they exemplified many ways to apply creativity through teaching approaches. Teachers tended to applaud the values of creative processes linked to their teaching styles but, all too often, the learning atmosphere and classroom context were overlooked. The cultural norms (both local to the settings and national) relating to seniority, conformity, criticism of children, and the judgement of teachers formed an invisible classroom climate which impacted on opportunities for learners to explore their creativity. Indeed, the cultural context often seemed to create barriers to the development of creativity in preschool settings.

If we expand on this issue, we may note that culture creates the values, beliefs, and manners in any particular society. It is the challenge for schools, teachers and educators to place emphasis on the importance of cultural effects within the classroom and to overcome the negative implications of this issue whilst building on the undoubted positive aspects of societal culture, both locally and nationally. In order to promote creativity, it is necessary that

teachers should provide freedom, openness, trust and a supportive learning environment in the classroom. In this way, traditions and customs should not be enemies to creativity. Seniority may remain as an accepted norm in terms of developing people who respect each other, but at the same time, teachers need to respect each child as a powerful learner rather than an 'adult in waiting' who must be controlled.

In these ways, creativity should be able to grow within every culture and every classroom. The school and teacher need to understand the whole process of creativity as something that is not static but consists of the interlacing of person, process, and context. There is a need to scrutinise the contexts of learning and the importance of teaching styles and activities. A clear understanding of creativity and the importance of creative contexts can widen perceptions of creativity and develop practices in order to produce more creative possibilities within classrooms.

5.5. Limitations of the study and research

The challenges encountered in this study related to the fact that the case study approach meant the acquisition of a massive amount of data from the curriculum, interviews with teachers, and observations; all of which required a great deal of time to transcribe and code prior to analysis. In addition, the processes of translation demanded careful word selection in order to communicate the correct meaning from different languages, and it was notable that some words and phrases cannot be translated with clarity. The methodology itself offered limitations in terms of enabling the development of generalisable findings. Nonetheless, the study revealed interesting and important findings that may influence future practice.

5.6 Recommendations for future research

This study adds to the growing body of knowledge about the concept of creativity and the confluence of creative press on creative process, product and person in the preschool classroom. It is, perhaps, inevitable that the research presented in this thesis seems to raise more questions than it has answered. There are several lines of research arising from this study which should be pursued in the future:

- The complexity of the conception and perception of creativity in the preschool classroom invites future research to investigate the concept of creativity in different aspects such as creativity in art, creativity in science, creativity in linguistics, play, and maths et cetera. Equally, one might conduct a comparison of different conceptions of creativity, some of which outlined in this submission, which could help teachers and practitioners to understand and reflect on the importance and possibilities of creativity in different domains.
- The researcher might also consider changes and revisions to the interview questions and observation schedules in order to focus even more intensely on the creative climate and the way that it affect learners' creativity. The creative climate indicators developed by Treffinger (1998) offer a framework to investigate creative productivity and the ways that it offers dynamic interactions between teacher, child, and environmental factors. This could give a clear focus on explicit results and demonstrate further the significance of the learning atmosphere in promoting creativity in preschool classrooms.
- As this study was conducted in settings in Thailand, it would be interesting to develop the methodology that was employed in order to carry out a comparative analytical study within another context. In such a case, the study could focus on one or more issues: for example, 'A comparative analysis of creative environments in Thailand and England' or 'A survey of perceptions and attitudes of teachers towards creative pedagogy in Thailand and England'.

There are, of course, many further avenues that could be fruitfully explored in relation to areas such as initial and in-service training of teachers concerning creativity, the role of school leaders in offering overarching support and monitoring in relation to this important topic, or the way in which central and local government might legislate to support creative education in the early childhood. All of the above topics, and many more, would offer an agenda for research on this fascinating issue.

5.7 Final reflections on the study

This study has made the researcher aware of the meaning and the uses of creativity in the curriculum and by teachers. The comparative case study allowed me to explore the dynamics of learning, the roles of teachers, and the atmosphere of learning that highlighted the importance of the invisible factors that play a major role in developing creativity in real settings. This was clearly shown in the teachers' responses and their attempts at adopting various teaching strategies and learning approaches with the aim of reducing barriers in promoting creativity. This strengthened my interest in carrying out case study research to gain in-depth understandings of people's beliefs and ways of living, which have a power in promoting or limiting a child's creativity and learning. The results of this study also showed the strengths and weaknesses of early childhood education in Thailand, which could be used as the primary focus for further research including creativity across different cultural contexts. The study also enabled the researcher to investigate the hidden factors that deeply embed creativity in preschool settings. This has enabled the researcher to continue to ponder the socio-cultural nature of early childhood education, which may give a better understanding of the culturally based studies of creativity in different cultural contexts.

Reviewing the recommendations for future research helped me to revise, not only new perspectives from the literature, but also new research methodologies. Mixed method approaches that integrate both qualitative and quantitative research methodologies can undoubtedly assist researchers to develop and measure the relationship between two or more variables and investigate an aggregate of representative populations that emphasise and measure the quantity, amount, intensity, or frequency of the research results. Although, at this time, the researcher does not feel equipped to conduct such studies, it would be both interesting and rewarding to seek out collaborations that might enable such an approach.

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Appendices

Appendix A: Letter for school settings and teachers

Liverpool John Moores University,
Faculty of Education, Health and Community,
I M Marsh Campus, Barkhill Road, Aigburth,
Liverpool, L17 6BD.

Dear Head teacher,

I, Miss Siratam Udomtamanupab and I am a current PhD student in the Faculty of Education at Liverpool John Moores University. I am in the process of gathering research data which is part of my PhD thesis on the topic: "DEVELOPING CREATIVITY IN EARLY CHILDHOOD EDUCATION: A COMPARATIVE ANALYSIS OF TWO CASE STUDIES IN PRESCHOOL SETTINGS IN THAILAND" and I write to ask if you and your staff might be kind enough to allow me to visit your school from 12 January to 27 February 2015.

Ideally, I would like to visit a preschool classroom in order to carry out observations and to interview teachers about their work and gather school document such as lesson plan, school curriculum, daily routine schedule, and photographs of classroom activities and children's artefacts. For this reason I would be most grateful if it might be possible to visit you or a member of your staff to discuss my project in the hope that you might be kind enough to allow me to conduct some of my study at your school.

I hope that the findings of this study will reveal best practice in the fostering creativity in Early Childhood education and that the study will be useful in providing recommendations for the development and reform of the early childhood curriculum.

My PhD study is under the supervision of Professor Mark Brundrett, Dr Jo Frankham, and Ms Nicky Hirst. And, I can, of course, provide full details of my background and my work and I can be contacted at the above address or by emailing s.udomtamanupab@2013.ljmu.ac.uk or by telephoning 077-6719-1877

I do hope that you will be able to help me in my work.

Yours faithfully,

SIRATAM UDOMTAMANUPAB

Siratam Udomtamanupab

Appendix B: Consent form for teachers

LIVERPOOL JOHN MOORES UNIVERSITY

CONSENT FORM FOR TEACHERS

Title of Project: "DEVELOPING CREATIVITY IN EARLY CHILDHOOD EDUCATION: A COMPARATIVE ANALYSIS OF TWO CASE STUDIES IN PRESCHOOL SETTINGS IN THAILAND"

Name of Researcher: Miss Siratam Udomtamanupab

School/Faculty of Education, Community and Leisure

- ☐ I confirm that I have read and understand the information provided for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily
- ☐ I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and that this will not affect my legal rights.
- ☐ I understand that any personal information collected during the study will be anonymised and remain confidential
- ☐ I agree to take part in the above study

For studies involving the use of audio / video recording of interviews etc. or where there is a possibility that verbatim quotes from participants may be used in future publications or presentations please include the following:

- ☐ I understand that the interview will be audio recorded and I am happy to proceed
- ☐ I understand that the observation will be recorded by taking notes/photographs and I am happy to proceed
- ☐ I understand that parts of our conversation may be used verbatim in future publications or presentations but that such quotes will be anonymised.

Name of Participant_____Date_____Signature_____

Name of Researcher_____Date_____Signature_____

Miss Siratam Udomtamanupab

Appendix C: Assent form for teachers

LIVERPOOL JOHN MOORES UNIVERSITY

ASSENT FORM FOR TEACHERS

Title of Project: "DEVELOPING CREATIVITY IN EARLY CHILDHOOD EDUCATION: A COMPARATIVE ANALYSIS OF TWO CASE STUDIES IN PRESCHOOL SETTINGS IN THAILAND"

Name of Researcher: Miss Siratam Udomtamanupab (School/Faculty of Education, Community and Leisure)

Teachers to circle all they agree with

Have you read (or had read to you) information about this project?	Yes/No
Has somebody else explained this project to you?	Yes/No
Do you understand what this project is about?	Yes/No
Have you asked all the questions you want to?	Yes/No
Have you had your questions answered in a way you understand?	Yes/No
Do you understand it's OK to stop taking part at any time?	Yes/No
Are you happy to take part?	Yes/No

If any answers are 'no' or you **don't** want to take part, don't sign your name!

Your name _____ Date _____

If you **do** want to take part, you can write your name below

Your name _____ Date _____

The researcher who explained this project to you needs to sign too.

Print Name _____

Sign _____

Date _____

Appendix D: Letter for parents/guardians

Liverpool John Moores University,
Faculty of Education, Health and Community,
I M Marsh Campus, Barkhill Road, Aigburth,
Liverpool, L17 6BD.

Dear parents/guardians

I, Miss Siratam Udomtamanupab and I am a current PhD student in the Faculty of Education at Liverpool John Moores University. I am in the process of gathering research data which is part of my PhD thesis on the topic: "DEVELOPING CREATIVITY IN EARLY CHILDHOOD EDUCATION: A COMPARATIVE ANALYSIS OF TWO CASE STUDIES IN PRESCHOOL SETTINGS IN THAILAND" and, I am writing to ask if you might be kind enough to allow me to carry out the classroom observations where your child are participate in, and also gather some of a child's artefacts and their photographs from 12 January to 27 February 2015.

Ideally, I hope that the findings of this study will reveal best practice in the fostering creativity in Early Childhood education and that the study will be useful in providing recommendations for the development and reform of the early childhood curriculum.

I can, of course, provide full details of my background and my work and I can be contacted at the above address or by emailing s.udomtamanupab@2013.ljmu.ac.uk or by telephoning 077-6719-1877

I do hope that you will be able to help me in my work.

Yours faithfully,

SIRATAM UDOMTAMANUPAB

Siratam Udomtamanupab

Appendix E: Consent form for parents/guardians

LIVERPOOL JOHN MOORES UNIVERSITY

CONSENT FORM FOR PARENTS/GUARDIENTS

Title of Project: "DEVELOPING CREATIVITY IN EARLY CHILDHOOD EDUCATION: A COMPARATIVE ANALYSIS OF TWO CASE STUDIES IN PRESCHOOL SETTINGS IN THAILAND"

Name of Researcher: Miss Siratam Udomtamanupab

School/Faculty of Education, Community and Leisure

- ☐ I confirm that I have read and understand the information provided for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily
- ☐ I understand that my participation is voluntary and that I/ and my child am/are free to withdraw at any time, without giving a reason and that this will not affect my legal rights.
- ☐ I understand that any personal information (about my child) collected during the study will be anonymised and remain confidential.
- ☐ I agree to for my child take part in the above study.

For studies involving the use of audio / video recording of interviews etc. or where there is a possibility that verbatim quotes from participants may be used in future publications or presentations please include the following:

- ☐ I understand that the observation will be recorded by taking notes/photographs (of my child) and I am happy to proceed

Name of parents/guardians _____Date_____Signature_____

Name of Researcher_____Date_____Signature_____

Miss Siratam Udomtamanupab

Appendix F: Assent form for parents/guardians

Title of Project: "DEVELOPING CREATIVITY IN EARLY CHILDHOOD EDUCATION: A COMPARATIVE ANALYSIS OF TWO CASE STUDIES IN PRESCHOOL SETTINGS IN THAILAND"

Name of Researcher : Miss Siratam Udomtamanupab (School/Faculty of Education, Community and Leisure)

Parent/guardian on behalf of young person to circle all they agree with

Have you read (or had read to you) information about this project?	Yes/No
Has somebody else explained this project to you?	Yes/No
Do you understand what this project is about?	Yes/No
Have you asked all the questions you want to?	Yes/No
Have you had your questions answered in a way you understand?	Yes/No
Do you understand it's OK to stop taking part at any time?	Yes/No
Are you happy to allow your children take part?	Yes/No

If any answers are 'no' or you **don't** want to take part, don't sign your name!

Your name _____ Date _____

If you **do** want to take part, you can write your name below

Your name _____ Date _____

The researcher who explained this project to you needs to sign too.

Print Name _____

Sign _____

Date _____

Appendix G: Classroom daily routine

The pilot study collected the classroom daily routine in order to organise the field study.

Classroom daily routine

- 8.00 a.m. School started by all pupils stand up to show respect for the nation (singing the national anthem, pray, and meditation)
- 9.00 a.m. Greeting activities
- 9.10 a.m. Circle time
- 9.30 a.m. Music and movement activities
- 9.50 a.m. Milk time
- 10.00 a.m. Art-craft activities
- 10.30 a.m. Free play activities
- 11.00 a.m. Outdoor activities
- 11.30 a.m. Lunch time
- 12.00 a.m. Resting and bed times
- 14.00 a.m. Snack times
- 14.30 a.m. Free play activities
- 14.50 a.m. saying goodbye

Appendix H: Sample of lesson plan

The lesson plan in school B: Learning about school			
Large group activity			
Content of learning	Essential experience	Materials	Assessment
• The school and classroom • The symbol of the school • The school areas • The location of the school	• Exploring school The relation of people in the school • Admiring the nature and school environment • Knowing teacher and peers • Understand the classroom regulations • Interact with social and community	• Literature books • Picture of the school • Music • Paper • Pen, pencil, crayon	• Observing the behaviour
Creative activity			
Content of learning	Essential experience	Materials	Assessment
• Expressing ideas via drawings • Cutting the paper in line following the instruction • Making school origami following the instruction	• Drawing • Cutting • Admiring and creating beauty of the thing • Happiness with arts	• Paper • Pen, pencil, crayon • Scissor • Glue • Play drought • Plate	• Assessing the child's work • Observing the behaviour
Play activity			
Content of learning	Essential experience	Materials	Assessment
• Creativity and imagination • Expressing ideas via objects • Number and figure • Size • Colour • The feature of objects and phenomena	• Free play • Using sensory motors • Observing, classifying, counting, and comparing • Assembling, disassembling, measuring, or scale the objects • Engaging activity with peers • Problem solving	• Blocks • Books • Plastic toys • Wooden toys • Music instruments • Sand, water, rocks	• Observing the behaviour

Appendix I: Observation schedule

The observation schedule was changed to an open-ended observation form and the period of observation was also rearranged to ensure that it captured what happened during the classroom activities.

Observation Schedule: Session _____ TH_____/30 Observer_____ Observant _____ (individual) (small) (large group) Place_____ Activities_____aim_____ Date_____ Time _____ Duration _____		
Teacher's action	Children's action	Notes
How does teacher's manner influence classroom atmosphere?	What is the children action/reaction?	
What teaching strategies were used? (For example explanation, discussion, demonstration, questioning, experiment?)	How children were organised in learning?	
What had teacher prepare before the lesson to achieve children's creativity in the classroom?		

Appendix J: Interview schedule with teachers

Introduction

Hello, as you know, I am a PhD student at Liverpool John Moores University. I am undertaking research for a thesis about creativity in early childhood education. This interview is a part of the work for that PhD thesis and I am trying to gain information about your perspectives and attitudes towards creativity in preschool. The interview will last approximately 1 hour, and will be recorded using digital audio recording. All information you say will be kept in confidence and, with your permission.

Respondent's code name

School A:

Teacher A1 (F) PhD. in Early Childhood education, teaching experience: 22 years (2015)

Teacher A2 (F) Master degree in Early Childhood education, teaching experience: 18 years (2015)

School B:

Teacher B1 (M) Master degree in Early Childhood education, teaching experience: 4 years (2015)

Art teacher B2 (F) Bachelor degree in Early Childhood education, teaching experience: 23 years (2015)

Theme 1: Conception and perception of creativity

Main Questions 1: Background, concept and place of creativity

- IQ1: 'After many years of your working experience, what you think about how creativity plays an important role in the Thai education?'
- IQ2: 'What do you mean by creativity in the preschool classroom?'
- IQ3: 'Where can we see children's creativity in the classroom?/ Where is creativity in the classroom?'

Probe Question 1: Concept of creative children

- IQ4: How can you explain 'creative children'?
- IQ5: What do you expect of creative children's behavior in Thai cultural context?

Prompt Question 1: Significance of creativity in preschool classroom

- IQ6: How creativity importance for child's learning/life?
- IQ7: Does a child need to develop creativity? Why?

Theme 2: Creativity and pedagogical approach

Main Questions 2: How can you teach creativity in the classroom?/ Can you explain how?

- IQ8: 'What are the teaching approaches that you use for developing creativity in your classes?'/'Could you give me some example of teaching approaches for developing creativity for children in your classroom?'
- IQ9: 'Have you create special pedagogical approaches for developing creativity in your classes (in addition to the general curriculum)?'

Probe Question 2:

- IQ10: Are there any cooperation activities between classrooms?
- IQ11: 'What are the activities that you use for developing creativity in the classroom?'
- IQ12: 'Could you give me some examples of activities/project/exhibition for developing creativity for young children in the classes?'
- IQ13: 'How often do you provide opportunities such as project work or exhibition for developing creativity in your classes?'

Prompt Question 2:

- IQ14: 'How does the school policy and curriculum play role in developing creativity in the classroom?/ Can you explain how?'
- IQ15: 'Are there any curricular demands on you to incorporate (or avoid) creativity in the work you do (as in a national curriculum etc.)?'

Theme 3: Creativity and school environment

Main Questions 3:

- IQ16: Please describe the materials and environment that can support creativity in your class? What materials are most helpful and what kinds of things do you think you need to teach creativity with your pupils?

Probe Question:

- IQ17: What role should school take in developing the environment for developing creativity and how can it support teaching and learning for creativity?

Prompt Question:

- IQ18: Could you give me some examples of specific materials and learning resources that you use for developing creativity? What else would you like to have?

Theme 4: Creativity, culture and education

Main questions 4:

- IQ19: 'What are the cultural or social contexts that influence the development of creativity in the classroom?'
- IQ20: 'How does the classroom context influence the development of creativity in real settings?'
- IQ21: 'Have you had any experience/knowledge about creativity and education in different countries?'

Probe Question 4:

- IQ22: 'Creative teacher - How could you explain "creative teacher in Thai cultural contexts?'
- IQ23: 'Creative children - How could you explain "creative children in Thai cultural contexts?'
- IQ24: 'What do you expects creative children's behaviour in Thai cultural context?'
- IQ25: 'Why do children need to develop creativity?'

Prompt Question 4:

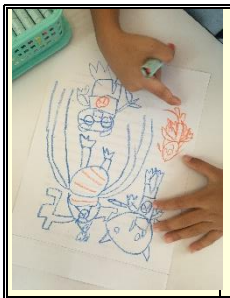
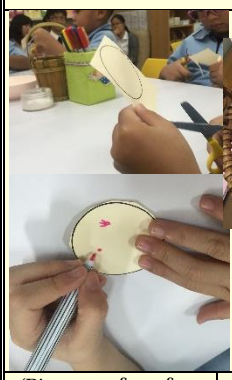
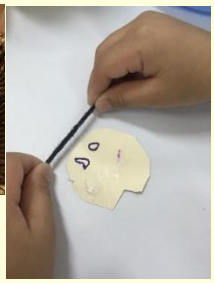
- IQ26: 'After all efforts, what do you find it easy/or difficult to foster creativity in real setting?'
- IQ27: 'What are the advantage in developing creativity in Thai school context?'
- IQ28: 'What are the barriers to the development of creativity in the classroom?'
- IQ29: 'As, you mention…Do you think that custom such as (…seniority, tightly organised with social rules order, the norm to regulate behaviour, collective with emphasis on social group, and harmony in the family and society, and concern with facing or gaining the social approve of the group…) influence negative or positive on children's creativity in the classroom?'
- IQ30: 'What are the most important factors in developing creativity in school?'
- IQ31: 'In this situation, what might help educators to develop creativity further in early childhood education?'

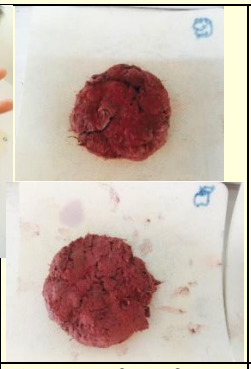
Thank you for participating interview

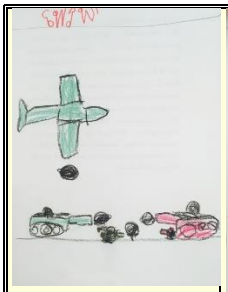
Appendix K: Sample of photographs of classroom activities and children artefacts in school A

<table>
<tr><th colspan="5">School A</th></tr>
<tr><td colspan="5">Activity name: Drawing with crayons
Topics: Thailand and South East Asia</td></tr>
<tr><td>  </td><td>  </td><td>  </td><td>  </td><td>  </td></tr>
<tr><td>(Picture of artefacts from child MH)</td><td>(Picture of artefacts from child P)</td><td>(Picture of artefacts from child M)</td><td>(Picture of artefacts from child SS)</td><td>(Picture of artefacts from child L)</td></tr>
<tr><td colspan="5">Activity name: Making craft
Topics: New Year decoration</td></tr>
<tr><td>  </td><td>  </td><td>  </td><td>  </td><td>  </td></tr>
<tr><td>(Picture of artefacts from child P)</td><td>(Picture of artefacts from child MH)</td><td>(Picture of teacher and child N)</td><td>(Picture of artefacts from child A and T)</td><td>(Picture of crafts martials)</td></tr>
<tr><td colspan="5">Activity name: Drawing with crayons
Topics: Thai/foreign dessert</td></tr>
<tr><td>  </td><td>  </td><td>  </td><td>  </td><td>  </td></tr>
<tr><td>(Picture of artefacts from child P)</td><td>(Picture of artefacts from child P)</td><td>(Picture of artefacts from child UM)</td><td>(Picture of artefacts from child UM)</td><td>(Picture of artefacts from child UM)</td></tr>
</table>

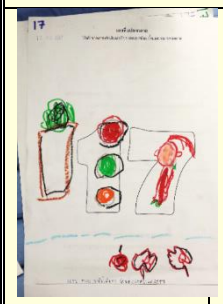
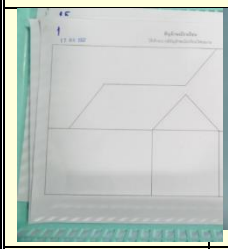
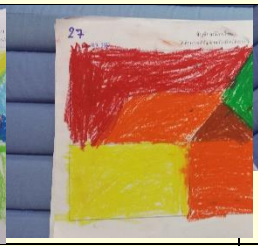
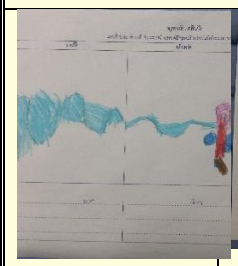
Activity name: Printing **Topics: Printing with natural leaves**				
				
(Picture of crafts martials)	(Picture of artefacts process)	(Picture of artefacts from child LN)	(Picture of artefacts from child UM)	(Picture of artefacts from child UM)
Activity name: Drawing with crayons **Topics: Favorite cookies and sweet**				
				
(Picture of artefacts from child B)	(Picture of artefacts from child B)	(Picture of artefacts from child P)	(Picture of artefacts from child LN)	(Picture of artefacts from child LL)
Activity name: Drawing with crayons **Topics: Free drawing**				
				
(Picture of artefacts from child A)	(Picture of artefacts from child B)	(Picture of artefacts from child LN)	(Picture of artefacts from child P)	(Picture of artefacts from child P)
Activity name: Drawing with crayons **Topics: Free drawing**				

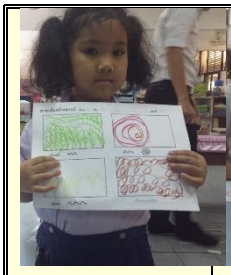
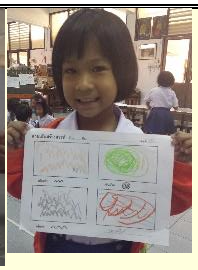
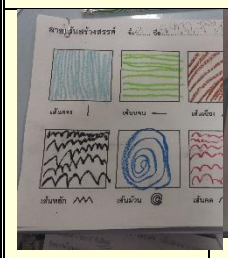
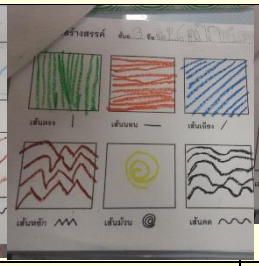
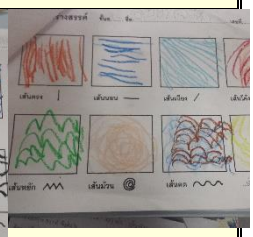
				
(Picture of artefacts from child C)	(Picture of artefacts from child P)	(Picture of artefacts from child LN)	(Picture of artefacts from child N)	(Picture of artefacts from child P)
Activity name: Drawing with crayons **Topics: Cookies for Hansel and Gretel**				
				
(Picture of artefacts from child MH)	(Picture of artefacts from child P)	(Picture of artefacts from child M)	(Picture of artefacts from child SS)	(Picture of artefacts from child L)
Activity name: Making craft **Topics: Making Hansel and Gretel**				
				
(Picture of crafts martials)	(Picture of crafts martials)	(Picture of artefacts process)	(Picture of artefacts from child P)	(Picture of artefacts from child LN)
Activity name: Making craft **Topics: Making Hansel and Gretel**				

				
(Picture of artefacts from child C)	(Picture of artefacts from child LN)	(Picture of artefacts from child PP)	(Picture of artefacts from child N)	(Picture of artefacts from child P)
Activity name: Painting with water colours **Topics: Free painting**				
				
(Picture of artefacts from child MP)	(Picture of artefacts from child S)	(Picture of artefacts from child LN)	(Picture of artefacts from child N)	(Picture of artefacts from child P)
Activity name: Making craft **Topics: Making Cookies from the candy house**				
				
(Picture of artefacts process)	(Picture of artefacts process)	(Picture of child P does artefact)	(Picture of artefacts from child UM and LN)	(Picture of artefacts from child N)
Activity name: Drawing with crayons **Topics: Free drawing**				

				
(Picture of artefacts from child T)	(Picture of artefacts from child P)	(Picture of artefacts from child M)	(Picture of artefacts from child SS)	(Picture of artefacts from child ML)
Activity name: Drawing with crayons **Topics: Favorite people or thing from the story book**				
				
(Picture of artefacts from child K)	(Picture of artefacts from child A)	(Picture of artefacts from child M)	(Picture of artefacts from child P)	(Picture of artefacts from child LN)

Appendix L: Sample of photographs of classroom activities and children artefacts in school B

<table>
<tr><th colspan="5">School B</th></tr>
<tr><td colspan="5">Activity name: Drawing with crayon
Topics: Magic number</td></tr>
<tr><td>  </td><td>  </td><td>  </td><td>  </td><td>  </td></tr>
<tr><td>(Picture of artefacts from child BJ)</td><td>(Picture of artefacts from child J)</td><td>(Picture of artefacts from child M)</td><td>(Picture of artefacts from child P)</td><td>(Picture of artefacts from child Q)</td></tr>
<tr><td colspan="5">Activity name: Drawing with crayons
Topics: The symbol of school</td></tr>
<tr><td>  </td><td>  </td><td>  </td><td>  </td><td>  </td></tr>
<tr><td>(Picture of artefacts from child A)</td><td>(Picture of artefacts from child J)</td><td>(Picture of artefacts from child C)</td><td>(Picture of artefacts from child Q)</td><td>(Picture of artefacts from child N)</td></tr>
<tr><td colspan="5">Activity name: Drawing with crayons
Topics: Good things Diary</td></tr>
<tr><td>  </td><td>  </td><td>  </td><td>  </td><td>  </td></tr>
<tr><td>(Picture of artefacts from child B)</td><td>(Picture of artefacts from child J)</td><td>(Picture of artefacts from child M)</td><td>(Picture of artefacts from child P)</td><td>(Picture of artefacts from child D)</td></tr>
<tr><td colspan="5">Activity name: Drawing with crayons Week 1
Topics: Streaks, strips and lines</td></tr>
</table>

				
(Picture of artefacts from child B)	(Picture of artefacts from child J)	(Picture of artefacts from child M)	(Picture of artefacts from child P)	(Picture of circle time in art activity)
Activity name: Drawing with crayons Week 2 Topics: Streaks, strips and lines				
				
(Picture of artefacts from child B)	(Picture of artefacts from child J)	(Picture of artefacts from child M)	(Picture of artefacts from child P)	(Picture of artefacts from child D)
Activity name: Drawing with crayons Topics: the elephant				
				
(Picture of artefacts from child Q)	(Picture of artefacts from child J)	(Picture of artefacts from child N)	(Picture of artefacts from child O)	(Picture of artefacts from child T)
Activity name: Painting with water colours Topics: Free painting				
				

(Picture of artefacts from child B)	(Picture of artefacts from child A)	(Picture of artefacts from child Y)	(Picture of artefacts from child O)	(Picture of artefacts from child T)
Activity name: Painting with water colours **Topics: Free painting**				
				
(Picture of artefacts from child B)	(Picture of artefacts from child J)	(Picture of artefacts from child M)	(Picture of artefacts from child P)	(Picture of artefacts from child D)
Activity name: Greeting time **Topics: Love our friends**				
				
				
Activity name: Greeting time **Topics: Meditation**				
				
Activity name: Circle time **Topics: School map learning**				
				
(Picture of the teacher drawing school map)	(Picture of a child observing the school photographs)	(Picture of artefacts from small group drawing)	(Picture of artefacts from small group drawing)	(Picture of artefacts from small group drawing)
Activity name: Play time **Topics: The symbol of school**				

				
(Picture of artefacts from child B)	(Picture of artefacts from child A)	(Picture of artefacts from child Y)	(Picture of artefacts from child O)	(Picture of artefacts from child T)
				
(Picture of artefacts from child BJ)	(Picture of artefacts from child J)	(Picture of artefacts from child M)	(Picture of artefacts from child P)	(Picture of artefacts from child C)
Activity name: Play time **Topics: Shadow puppet**				
				
Activity name: Play time **Topics: Playing with the shadow**				
				
Activity name: Circle time **Topics: Learning about the flag**				

Activity name: Art time
Topics: Making the flag

Activity name: Art time
Topics: Drawing with black magic

Activity name: Play time
Topics: Making windmill

Activity name: Outdoor time
Topics: Testing our windmill

Activity name: Circle time
Topics: Making 3D school map

Activity name: Play time
Topics: Playing in the active play corners

Activity name: Play time
Topics: Creating the favourite place around the school

Activity name: Play time
Topics: Playing in the puppet theater

Note: The entire pictures had been checked by the school and the participant; to display in this thesis. The name of the participant are anonymised to remain confidential.