CHAPTER I

INTRODUCTION

1.0. Introduction

In this section, a brief background regarding creativity and its role in social life in general and education in particular will be discussed. Moreover, the statement of the problem, purpose of the study and the research questions will be mentioned. Finally, the limitations of the study and the definitions of the key terms are provided.

1.1. Background

Over the past decades, in the world of modern technologies, creativity and innovation have witnessed an overwhelming popularity (Chien & Hui, 2010; Lau & Cheung, 2010; Wu & Albanese, 2010). Likewise, contemporary psychology and pedagogy have found the creationistic approach highly precious; according to which anyone is able to be creative (Karwowski, Gralewski, Lebuda, & Wisniewska, 2007).

The concept of creativity, one of the most complex products of the human mind, is commonly applied to educational contexts and everyday discourse. However, apparently a simple phenomenon, the term is slightly vague when it is needed to put its meaning into words (Karakelle, 2009; Kampylis, Berki & Saariluomaa, 2009; Glaveanu, 2010). Ambiguity of this notion is partially due to its various expressions and applications in different fields such as business, art, science and teaching (Runco, 2007). Csikszentmihalyi (1996) defined creativity as "any act, idea or product that changes an existing domain or that transforms an existing domain into a new one" (p. 28). Furthermore, Barron (1997) pointed out that creativity means thinking, acting and producing differently. This often demands a

great deal of courage; since, one stands out from the crowd and might in fact turn out to be wrong. In sum, scholars generally consent that creativity involves the ability to reach unconventional results, produce novel and meaningful opinions, pose new questions, and offer multiple alternative solutions to ill-defined problems (Besemer & O'Quin, 1999; Lubart, 2001; Plucker, Beghetto, & Dow 2004; Sternberg, 2003).

The construct of creativity is a primal constituent of any understanding of human education as well as psychology, and has a lot to offer educational psychology (Plucker et al., 2004). Given that creative thinking is a key competency for the 21st century, in the first place, experts seek to flourish this fundamental skill by empowering teachers, schools and educational systems. In truth, creativity teaching embraces the development of an amalgam of abilities, skills, motivation, knowledge and some other attributes (Kaufman, 2009; Runco, 2003). Recently, the focus of attention has shifted from learners' creative achievements toward their creative potentials. In consequence, reforming educational structure to further highlight creative and critical skills in learners is taking place across the world.

Despite the potential applications of creativity, this skill is rarely fulfilled in pedagogical contexts. Classrooms do not appear to cultivate creativity basically because of teachers, curriculums or classroom organizations. A review of the literature demonstrates that dearth of research in the field of language learning is quite palpable. To my best knowledge, no study has been carried out to highlight and ratify the significant role of English as a Foreign Language (EFL) teachers' creativity in their performance in class. Due to its prominence, multiple

questionnaires have been developed for the purpose of measuring this multi-dimensional phenomenon in various fields of studies; however, none of the tools is merely specified to the realm of education and EFL teachers. To this end, the current study primarily centers around developing and validating a creativity scale to evaluate non-native English teachers sense of creativity enhancement. The major aim of this questionnaire is to assess, to what extent, teachers' activities, strategies and behaviors in the class cultivate the learners' creative thought.

1.2. Statement of the Problem

In the economic and cultural prospect of the 21st century, with rapid advancement of technology, the need for innovative ways of dealing with unexpected problems, utilizing information and owning flexible thought have gained a significant importance (Craft, 2005). This growing interest in creativity has made the researchers develop numerous approaches and tests to measure and evaluate peoples' sense of creativity.

Torrance Tests of Creative Thinking (TTCT) (Torrance, 1974) together with the Wallach–Kogan Creativity Tests (WKCT) (Wallach & Kogan, 1965) are probably the two broadly employed measures of creativity. In spite of their popularity, the tests are hard to administer and score; thus, not considered as convenient tools (Lau & Cheung, 2010). In the same framework, Gough's Creative Personality Scale (CPS) (Gough, 1979), an adjective check list, assesses creative personality. Moreover, the Consensual Assessment Technique (CAT) is regarded as another sort of measurement tool for creativity in which professional experts evaluate creative outcomes. The reason behind its time consuming nature is that in this test

participants are asked to draw some pictures or write stories (Amabile, 1982). Despite the noted assessment tools, the researchers' main concern is still accessibility of convenient, reliable and valid measures. Scarcity of such measures would hinder the development of creativity theories and studies (Lau & Cheung, 2010).

On the whole, it seems that the notion of creativity in second or foreign language teaching has not been probed seriously. Aforementioned creativity assessments are chiefly designed for the goal of measuring how creative people actually are. It is worth mentioning that the stated measures are substantially designed to be applied to the realm of psychology and not specifically pedagogy. Furthermore, they are commonly composed of lengthy open ended questions and tasks for the subjects to generate their own novel ideas (Silvia, Martin, & Nusbaum, 2009). Looking from a pedagogical point of view, it seems that particular attention needs to be paid to this prominent incident. In contrast to what was stated and to compensate for the mentioned deficiencies, the present study intends to construct an English language teacher creativity scale to determine how much, English language teachers are able to *enhance* creativity in their EFL learners, not actually how creative they themselves are. Besides, relying on the fact that self-rated measures do not enjoy a high level of validity and are susceptible to any kind of bias (Baer, 1998), the present scale intends to capture teachers' level of creativity fostering attitude through drawing learners' insights toward them. Last but not least, for the ease of administering, scoring and evading subjectivity, multiple choice questions are used.

1.3. Significance of the Study

It is widely accepted that creativity plays a substantial role in improving individuals and societies (Karakelle, 2009). The growing need of societies for promoting creative though, has led to what Craft (2005) referred to as 'revolution of creativity in education'. In accordance, the importance of schooling in cultivating students' creativity is indisputable (Starko, 2010). The classroom has always been an important environment for children to learn how to behave in society. This environment can either encourage or discourage creativity (Eason, Giannangelo & Franceschini, 2009). However, the environmental factors mainly depend on teachers' perception of creativity education (Chien & Hui, 2010). As Csikszentmihalyi (1996) declared teachers may be important gatekeepers of learners' creative potentials.

Now that the significance of this vital phenomenon and the indispensible role of teachers have been highlighted once more, administrators should be exceedingly wise in recruiting eligible and successful teachers. Hopefully, the current English language teacher creativity scale can be a great help to cope with this seemingly simple issue. Similarly, the test can be applied to the current teachers of English teaching centers. Based on the results obtained, appropriate training courses would be planned to elevate teachers' creativity knowledge and education. To boot, several research papers could be written using this English language teacher creativity scale to find its association with various pedagogical and psychological variables.

1.4. Purpose of the Study

The current research consists of two phases. Primarily, the body of the study is devoted to the analysis of the extent to which EFL teachers foster creativity in their EFL learners. In doing so, the initial aim of this paper is to construct and validate a creativity scale employing Rasch rating scale model (RSM) (Andrich, 1987) for English language learners to rate their teachers' scope of contributions to nurturing creativity in EFL learners. In this vein, influential factors are going to be recognized and applied as the items of the coming English Language Teacher Creativity Scale (ELT-CS). Secondly, in order to verify the predictive validity of the scale, it is administered along with 'Characteristics of Successful EFL Teachers'.

1.4.1. Research Questions

1. Does ELT-CS enjoy construct validity?
2. Does ELT-CS enjoy predictive validity?

1.4.2. Research Hypotheses

$H_0 1$: ELT-CS does not enjoy construct validity.

$H_0 2$: ELT-CS does not enjoy predictive validity.

1.5. Definitions of Key Terms

Creativity: Almeida, Prieto, Ferrando, Oliveira and Ferrandiz (2008) provided a general explanation of creativity as the skills required for generating ideas and

products that are (a) rather novel and unconventional; (b) high in quality; and (c) suitable to the task at hand. Also, Feldman, Csikszentmihalyi, and Gardner (1994) mutually defined creativity as "the achievement of something remarkable and new, something which transforms and changes a field of endeavor in a significant way" (p. 1).

Construct Validity: As Farhady, Ja'farpur and Birjandi (1994) define, construct validity "refers to the extent to which the psychological reality of a trait or construct can be established" (p. 154). In other words, construct validity investigates whether the test measures what it is intended to measure (Farhady et al., 1994).

Predictive validity: predictive validity, also known as empirical validity, is regarded as a kind of criterion-related validity which depends on some sorts of association between the results obtained from the newly-designed test/scale and an already established one owning reasonable estimate of reliability and validity. In fact, it mainly aims at how well a test predicts future performance (Farhady et al., 1994).

Rasch Model: Rasch rating scale model is an item response theory (IRT) model which is particularly concerned with measurement in education and psychology. However increasingly, it is being used in other fields such as health profession, marketing and economics, as well. This measurement procedure rejects the concept of raw scores and provides person and item estimates that are placed on an interval scale. Rasch is item and person free, i.e. it is capable of having

estimates for item difficulty and person abilities separately but on a common interval scale (Andrich, 1978).

1.6. Limitations of the Study

Undoubtedly, the current study is not without limitations. Firstly, the participants involved in this study were selected from a number of English language institutes which were not representative of the big population of English language teachers and learners of neither Iran nor Mashhad. Furthermore, subjects were sampled merely from among institute teachers and learners; other studies may be conducted in academic settings or public schools. Moreover, the present study was confined in the sense that it employed only questionnaires as research instruments; therefore, future studies may employ a variety of instruments such as interviews, in order to add a qualitative dimension to the study. Additionally, confirming and conducting the study with larger samples will be highly welcome. This study was done in the Iranian EFL context; other researchers can do the same across various cultures to compare the findings and get more reliable results. Building on these issues, several areas for future research deserve attention.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

2.0. Introduction

In this section, the related literature of creativity is reviewed. In the first place, the concept of creativity is introduced and various definitions are offered. Afterwards, the researcher presents different approaches toward creativity as well as its core components. Position of creativity in the realm of education is the next focus which hinges on creative learning and teaching, creativity teacher training and deficiencies of infusing creativity to classroom curriculums. Eventually, creativity is studied in the context of language learning and teaching.

2.1. Creativity

2.1.1. Creativity Defined

With the increase of life uncertainties in the twenty-first-century industrial societies, predictability of life has turned to be much less than earlier times (Craft, 2001). Such radical changes depict cultural evolution from one generation to the next (Runco, 2004). Followed by this, there exists an immense need for this generation of children and youth to be experienced enough to deal with the growing ambivalences appearing each day. Building on these issues, creativity has developed to be not only a reaction but also a contribution to evolutionary changes and more importantly a fundamental life-skill for everyone nowadays (Runco, 2004).

The contemplation of creativity in human life has demonstrated itself throughout history in all cultures (Vass, Littleton, Miell, & Jones, 2008). Yet, different cultures might value creativity diversely (Hui & Yuen, 2010). Ever since those

early days, home was the pivot of learning and family was the priority agent to a child's creativity in all cultures. Proper parental care integrated with children's motivation would lead to a high creative potentiality (Sarsani, 2008).

Additionally, creativity owns obvious numerous benefits to social life as well as personal life on the whole (Runco, 2004). To a society that constantly needs to prosper and survive, creativity is an inevitable utensil. This notion is an engine for technological advances, sciences, humanities and arts in both modern and developing countries. More specifically, it plays a substantial role in wealth creation and economic resources. Societal changes in Western cultures, underline the necessity to shift from industrial-based to knowledge-based economy that is supported by human creativity. Construction of novel ideas has become the main enterprise for numerous organizations and businesses to invest heavily in creativity education (Runco, 2004).

Indeed, creativity is a conceit that is absolutely familiar to both lay people and professionals (Dornyei, 2005). Behind its relative simplicity, there is a complex history of thinking about it (Glaveanu, 2011). Unlike abundant concepts in science, there is no unified, unambiguous definition in terms of this mysterious notion. Nonetheless, Almeida et al. (2008) provided a general explanation of creativity as the skills required for generating ideas and products that are (a) rather novel and unconventional; (b) high in quality; and (c) suitable to the task at hand.

Feldman et al. (1994) mutually defined creativity as "the achievement of something remarkable and new, something which transforms and changes a field of endeavor in a significant way" (p. 1). Plucker et al. (2004) concluded that

"novelty and usefulness are two facets of creativity found in definitions both within our content analysis and when surveying the creativity literature in general" (p. 91).

As Laius and Rannikmae (2003) stated, creativity entails departure from existing facts to exploring modern ways, discovering answers and detecting unanticipated solutions. Further, in language study, creativity is believed to have the following characteristics: (a) fluency, the production of numerous ideas; (b) flexibility, the production of a large variety of ideas; (c) elaboration, the development of an idea; and (d) originality, the production of infrequent ideas (Torrance, 1974).

Rhodes (1961) estimated nearly 50 definitions of creativity which he qualitatively categorized into four levels known as (4-Ps) model: (a) person, (b) process, (c) press and (d) products. *Person* category indicates information about personality, traits, temperament and attitudes. This category supposes that people with specific characteristics are more creative than others. Rhodes outlined *process* as motivation, learning and thinking. *Press* hinges on the relationship between human beings and their environment and *product* is the outcome of a creative endeavor. In fact, this 4-Ps model shows that researchers are able to delve into creativity from miscellaneous aspects (Zeng et al., 2011).

2.1.2. Origin and Nature

The study of creativity is traced back to the early days of psychology (Palmon, 2011). More than half a century ago, Guilford (1950) raised his definition of human intellect which functioned as a root for description of creative thinking. His presidential address to the American Psychological Association was titled

"Creativity," and took him a long way to convince people the possibility of being scientific about creativity.

There exist a number of myths together with supporting or contrary points of view in terms of this multi-dimensional concept. Conventionally, some people believed that creativity was a God-given trait we were born with (Sternberg & Lubart, 1996). Following this, they wondered whether working on cultivating creativity made sense at all. However, decades of research on positive effect of training and fostering creativity strongly rejected this pervasive myth (Amabile, 1983; Torrance, 1974). Further, formerly, people would think that creativity is a special gift granted to a few elites; therefore, lay people could scarcely take the advantage of holding and cultivating it. Contrarily, today creativity is believed to be present in every individual (Kurtzberg & Amabile, 2001).

The next myth is that creativity is enhanced within groups. Based on Vygotsky's cultural-historical theory of creativity and Csiksentmihalyi's processes that backs up creative 'flow', it is supposed that creativity is essentially collaborative and social. Simply put, creativity does not take place inside people's head but from the interaction of a person's thought and his socio-cultural context (Csiksentmihalyi, 1996). This conceit is entirely opposed to the early belief that would regard creativity as a personality trait owned by highly gifted individuals (Whitelock, Faulkner, & Miell, 2008). In compatible with the previous argument, Amabile (1983) asserted that creativity should not be looked at as a personality trait or general ability but an attitude that results from the interaction of personal characteristics, cognitive ability and environmental factors. Thus, it could be taught through the application of some simple techniques and strategies.

Nonetheless, research maintains equilibrium between the relative roles of individuals versus groups in a creative activity (Florida, 2002).

2.1.3. Big 'C' or Little 'c'

With respect to individuals, creativity researchers typically utilize the 'little c' metaphor. As Craft (2001) stated there is a difference between 'big C' and 'little c' creativity. The former carries a great impact on society whereas the latter concentrates on everyday creativity. Big C creativity (BCC) or high creativity actually alters the domain, such as the people who are noble creators and change the domain of knowledge or create a new one. By contrast, little c creativity (LCC) or ordinary creativity concentrates on ordinary people to recognize their potentials in solving problems rather than extraordinary contributions of the few. LCC is thus invented to cope with the engagements and challenges of everyday life. Although, its consequence is much less influential, LCC is accepted as the necessary ability of individuals. Based on the premises, LCC is considered more relevant to the field of education (Craft, 2001); in addition, its focus is mainly placed upon process rather than product (Karwowski et al., 2007).

Much parallel to the above mentioned categorization, and even many years before that, Maslow (1967) had referred to the two types of creativities as primary and secondary. He stated that primary creativity is used by an individual to become self-actualized or to keep up with challenges of modern daily life; on the other hand, secondary creativity is utilized by scholars of miscellaneous fields and brings about creative achievements.

2.1.4. Creativity: Unidimensional or Multidimensional?

There is a controversy whether creativity is unidimensional or multidimensional in nature. Dimensionality of creativity is substantial to identify mind's cognitive functioning and support improvement of human potential. Since Guilford (1959) considered divergent thinking multidimensional, many scholars concluded that creativity consists of numerous psychological factors (Kim, 2006b). Likewise, in 2011, Gruys, Munshi and Dewett asserted that creativity is multidimensional and the dimensions are subject to be influenced by a number of elements and processes. Paradoxically, Hocevar (1979b) and Dixon (1979) discovered a significant correlation between subscores of the TTCT and Guilford's (1959) divergent thinking tests; thus, reported that the tests measure a single dimension rather than several independent dimensions.

2.2. Different Approaches toward Creativity

2.2.1. Cognitive Approach

There are a variety of approaches to creativity and the most common is the cognitive approach (Wu & Albanese, 2010). Cognitive approach presents a holistic view of creativity. It also indicates non-cognitive elements such as personal and social in creative production (Almeida et al., 2008). Despite the fact that construction of new ideas is attributed to cognitive processes, evolution of individual creative capability is not limited exclusively to cognitive processes (Sak & Oz, 2010). People can become more creative only if they learn how to activate their creativity through exploiting meta-cognitive strategies (Kilgour,

2006). Creativity in individuals is influenced by the convergence of cognitive, emotional, environmental and motivational variables (Chien & Hui, 2010). Therefore, people who study and employ creativity have to adopt a flexible policy and shun depending exclusively on one approach (Runco, 2004).

2.2.1.1. Creativity and Intelligence

Creativity is one of the three underlying principles of Sternberg theory of successful intelligence (Sternberg, 2002). Nonetheless, creativity goes beyond intellectual realm. The association between creativity and intelligence has been reported to be thoroughly controversial from long ago. Guilford and Christensen (1973) conducted a study and explored that creativity and intelligence hold a slight positive correlation. Equally, several years later, in another endeavor Srivastava and Thomas (1991) confirmed this positive relationship once more. Runco and Albert (1987) reflected the idea that a minimum level of intelligence (threshold theory) is necessary for merely certain measures of creativity. By contrast, Wallach and Kogan (1965) distinguished that there is no significant relationship between creativity and intelligence.

Yet, a palpable example is that in reality, children with high IQs in comparison with their creative counterparts are more popular, better understood and more bookish to their teachers (Torrance, 1974).

2.2.1.2. Creativity and Knowledge

Knowledge can either help or hinder creativity. From one aspect, an individual requires to know enough about a domain to move ahead. From a different aspect,

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knowledge about a domain ends to individual's not moving beyond the way one has faced problems before (Sterngberg, 2006).

In a conceptualization of creative process Amabile (1983) proposed that creativity depends on domain-relevant skills including knowledge about and talent in the field which are based on innate abilities and training. In cognitive approach knowledge is deemed to play a relative role in creativity. Declarative and factual knowledge might provide the individual with alternatives when he is solving problems; yet, concurrently, can restrain creative thinking if the individual relies heavily on knowledge alone. Complementarily, procedural knowledge is involved with tactics to find solutions to problems (Runco, 2004).

2.2.1.3. Creativity and Age

People chiefly imagine that creativity increases with age and education. Regardless of this point of view, it could be denoted that with development, children's cognitive capability improves and their level of knowledge rises. In other words, the older the participants become, the better they perform on the real-world problem tests. Following this perspective, Wu et al. (2005) transacted an experiment on 22 6th grade students and 22 university students in Hong Kong. The researchers made use of three tests (Torrence, 1974), the real-world problem task that examines comprehension of the real life situations, the figural task that needs artistic ability and lastly the verbal task that asks the unusual uses of common objects. As expected, their data analysis manifested that university students were markedly stronger on real-world problem while relatively weaker on figural task comparing to 6th grade students. However, no discrepancy was detected between

the two groups' verbal task performances. Piaget (1932/1952) claimed that children between the ages of 6 to 12 think concretely and are not capable of thinking abstractly. Logically, real-world problem task is somewhat abstract and demands hypothetical reasoning on account of imagining the event and anticipating the subsequent consequence. In reference, grade 6 pupils appear moderately weaker on this specific task. To boot, knowledge base and life experience, were the two other probable reasons why university students outdid their younger peers. Regardless of the figural task, it was deemed that intrinsic motivation of the grade 6 students was the primary reason behind their superior performance. Ultimately, verbal task relies partially on the participants' language ability that the two groups apparently acted in the same way (Wu et al., 2005).

2.2.2. Constructivist Approach

An indication of overlap between creativity and educational psychology is the matter of constructivism. Constructivist ideas toward teaching and learning concentrate on the role of knowledge production as opposed to knowledge transmission (Plucker et al., 2004). In this regard, creativity is truly close to a constructivist approach to learning owing to generation of novel ideas and outcomes through the use of imagination (Craft, 2008). According to Vygotsky's theory, imagination is susceptible to fostering creative thinking (Eckhoff & Urbach, 2008; Lindqvist, 2003). In constructivist approach the centrality is predominantly on meaning-making and knowledge construction as an alternative to knowledge acquisition.

2.2.3. Psychological Approach

Creativity, an integral part of psychology, may lead to a further perception of the individual in different settings (Plucker et al., 2004). There exist a number of mental processes that can arouse creativity in variety of circumstances. A thorough understanding of these processes might improve psychologists' works in this domain.

2.2.3.1. Creativity and Personality

Copious studies have highlighted the significance of specific personality attributes to creative behaviors (Sternberg & Lubart, 1995, 1996). These attributes, however not fixed, embrace self-efficacy, willingness to take sensible risks, overcome obstacles and tolerate ambiguity (Sternberg, 2006). Seemingly, creative people often tend to question everything. They enjoy doubting about things and are eager to interrogate known and the taken-for-granted along with the problematic issues (Claxton, Edwards, & Scale-Constantinou, 2006). As Kashdan and Fincham (2002) declared, curiosity is the principal characteristic that distinguishes creative individuals from ordinary people. Also, they often enjoy opposition; that is, they choose to decide and think reverse to the ways others do (Sternberg, 2006).

Feist (1998) conducted an overall analysis and explored the relationship between creativity and personality. The results of his study revealed that in general, creative people are more "autonomous, introverted, open to new experiences, norm-doubting, self-confident, self-accepting, driven, ambitious, dominant, hostile, and impulsive" (p. 299). Among these personality dimensions of creative people, the largest effect size was attributed to "openness, conscientiousness, self-