

# Developing Learner-Centered Activities to Enhance the Divergent Thinking of ESL Students at the Primary School Level

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## Abstract

This research aims to (1) study the effectiveness of promoting the divergent thinking of primary school students through learner-centered activities and (2) investigate students' capacity for expressing creativity before and after the implementation of the learner-centered activities. Five Year 3 ESL students from an international school based in Chiang Mai, with a British program, participated in the study. It is a case study, where two groups of instruments were used. The first group includes needs analysis and learning activities of 23 hours. The later is for data collection consistent of classroom observation, experts' evaluation of students' end products, Instances Test, and teachers' evaluation of students' creativity.

The findings show that (1) primary level students' divergent thinking skills expressed through the use of vocabularies and phrases in English increased to average level after the implementation of the student-centered activities and (2) students' capacity reflected from the Instances Tests were gradually increased after the implementation of the

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learner-centered activities and it was changed in a high level based from the teachers' evaluation of students' creativity. The results of this study showed that ESL students in primary level were very creative and were capable of thinking of a higher number of vocabulary, expressions and ideas through the implementation of the student-centered activities.

**Keywords:** creativity, divergent thinking, English language learning, primary school level

## 1. Introduction

Creativity is a concept that has been attracting people's attention for the past few decades, especially in the school systems. Generally, it first began being studied in the 1950s, with booms in the 60s, 70s, 90s and currently with a focus in the classroom (Helson, 1990; Runco & Albert, 1990). In Thailand, the concept of creativity in education has been in discussion for the past 15 years, mostly without a successful implementation due to the country's cultural ideologies (Mounier & Tangchuang, 2010). Fostering creativity can be done through a number of methodologies, including divergent thinking, which is the most common measurement of creativity, and in the language classroom it can be done through the student-centered approach.

There are many problems regarding the teaching for divergent thinking in the language classroom. First, the majority of the school systems are not promoting divergent thinking nor promoting creativity. Most of the school systems are, sadly, hindering creativity (Robinson, 2009). This can clearly be seen in the English classrooms around Thailand, where rote memorization and stiff learning methodologies are

still being used, and where sometimes “teachers treat students like a whiteboard” (UNESCO, 2011; Kaewmala, 2012; Fernquest, 2011; Ahuja, 2011). The activities used by the teachers have not been aimed towards divergent thinking, either due to a lack of knowledge on this methodology, because teachers themselves are not well qualified for their current English teaching position or because education as a whole has not focused on encouraging it (Kaewmala, 2012). Instead, education has focused more on the ability to recall and retell stories accurately rather than preparing children to become linguistically creative, or to memorize English grammar rules rather than encourage communicative language skills (Guilln & Bermejo, 2011).

Second, when focusing on the ability to recall and retell stories accurately, students are encouraged to believe that there is one correct answer only, thus, stigmatizing mistakes and any other answers given by students (Guilln & Bermejo, 2011). Third, the English language curriculum is being dominated by the concept that standardized testing is the best option, where it is therefore narrowed to fulfill the needs of such tests, and prescribed textbooks to prepare students for the tests are the only materials used in the classroom. This can also be seen in the Global Educational Reform Movement (GERM), an informal global policy program that relies on certain assumptions to improve the education systems, having the adoption of high-stakes accountability policies, including high-stakes examinations, as a main feature together with teaching with prescribed curriculums (Sahlberg, 2011). However, figures have shown that testing is not the solution (Sahlberg, 2011). Unfortunately, essential life skills, which can be found in divergent thinking, are being oppressed by the system, which instead encourages students to find conventional answers and encourages rote memorization. This is especially true for the language classroom.

Looking through the problems, three main causes can be seen in the English language teaching practice: stigmatizing mistakes and focusing on one correct answer only; a lack of activities which bring divergent thinking into the classroom, where teachers should not only teach creatively but instead focus on teaching for creativity by using student-centered approaches; and finally standardized testing. Sadly, Thailand currently encounters these three problem-causers within its English system throughout the country. However, school systems can adapt and make changes in order to implement divergent thinking in its English curriculum through the implementation of student-centered activities, however, it must be open to the new culture of the 21<sup>st</sup> century and the English culture. Unfortunately, Thailand still believes that it can incorporate a new curriculum and keep its traditional hierarchy and values, which contradict the new curriculum and methods of teaching (Mounier & Tangchuang, 2010). In Thailand, the Ministry of Education is clearly setting up goals; however, they are not preparing English teachers and institutions to effectively implement them, making it a failure (Mounier & Tangchuang, 2010).

English teachers often do not think of themselves as creative individuals, most not even being aware of divergent thinking, and instead, follow the norms given by the institution. It is oftentimes easier for English teachers to follow what they have been told or the methodology used in the past, rather than thinking of new teaching approaches. Other times, language teachers are aware of the need for creativity but simply do not know how to achieve it. An example of that is a primary school teacher at a local International School, who believes that creativity is needed in the English classroom as well as in other subjects, and thinks that her classroom lacks in creative activities, however, argues that she is not good in role-play and coming up with

new games. The main causes of this problem are: a lack of student-centered activities, within teachers' reach, which allow teachers to develop divergent thinking in students, opening doors to creative assessment; a lack of activities which teach for creativity as well as for academic success; a lack of student-centered activities which allow students to choose amongst a variety of reading and writing styles, giving them autonomy, a characteristic of both student-centeredness and divergent thinking, within the context; a lack of activities which encourage the writing or analysis of stories, rather than recalling and retelling; and teachers are not being incentivized to be creative in the classroom, where most have no knowledge on how to teach creatively or teach for creativity.

As seen above, there are a variety of problems in bringing divergent thinking into the language classroom. Above all, most literature on creativity in the classroom regards a number of other perspectives, but lack to consider the creativity in the language classroom. Researchers emphasize the need for creativity in the school system as a whole (Robinson, 2009) (Kaufman, Plucker & Baer 2008; Keller-Mathers 2011) but often it does not mention the language classroom, hence, an additional problem.

There are exceptions in the world, such as the Finnish education system where students are encouraged to study what they are interested in, which causes students to enjoy what they are learning and therefore have a greater number of innovative ideas, and where English levels are not surprisingly high. Finland aims to not follow the norms that other countries have been following and seems to have excelled in its results, shown by the Program for International Student Assessment (PISA) on the past 3 years. While other English programs are in a downward spiral, desperately searching for a solution to improve its

students learning but only applying ineffective methods, Finland has been in the eyes of global educators for having an effective system, desired by many nations, allowing students to be autonomous and creative (Sahlberg, 2011).

One solution alone will not solve the problem within an entire language teaching system and a set of different attitudes must be taken in order to change the system of an entire country (Sahlberg, 2011), nevertheless, using the strategies and methodology of the activities mentioned in this research will help primary level English teachers make an immediate and effective change in their English classroom. It can make a change on the way teachers see creativity in the language classroom, and is able to demonstrate how creativity can be achieved by using simple student-centered activities which will enhance students' skills in divergent thinking. It aims to give unprepared primary level English teachers hope that there are easy ways in which an English learning classroom can foster divergent thinking, while keeping students motivated and interested in the lesson. Students will be exposed to student-centered activities, which will increase their divergent thinking, hence, increasing creativity. The learner-centered approach is composed of a variety of characteristics, which can also be found in the divergent thinking theory, such as autonomy, and therefore is ideal for conveying the divergent thinking skills.

Creativity in the primary level English as a Second Language (ESL) environment in an international setting has not been approached by many researchers as of yet, and it is believed that there is a strong need for that, as around the world there are thousands of international schools (and other schools) in need of creativity. Not only that, but local schools can benefit by researches done in successful English learning

settings, and take away useful ideas to implement and immediately improve the English learning in the primary level Thai setting.

Creativity has been proven to assist people in their later lives and is considered an essential skill to cope with the future changes by many multinational companies (Albert, 1990; Sahlberg, 2011). Therefore, it is evident that schools need to implement activities that support and enhance students' creativity from the lower primary school years onwards. Sir Ken Robinson, a chair of the UK Government and expert in creativity in the education system, described a research that showed that "young people lost their ability to think in 'divergent or non-linear ways', a key component in creativity (Bartel, 2008; Connors, 2010). Of 1,600 children aged three to five who were tested, 98% showed that they could think in divergent ways. By the time they were aged eight to ten, 32% could think divergently. When the same test was applied to thirteen to fifteen year olds, only 10% could think in this way. And when the test was used with 200,000 25-year-olds, only 2% could think divergently." This problem should be administered before it starts to appear, and therefore the primary school level is the place of such research.

Perhaps surprisingly, this has great relevance to primary level English teaching, affecting the language classrooms in Thailand. The discussion above is central to a controversy that has been taking place in Thailand during the past few years. The Basic Education Curriculum (2001) by the Ministry of Education in Thailand reveals great goals for its education, especially for the language classroom, with its crucial goals of fostering morality, intellectual development, happiness, competitive potential, and creative/positive competition in the world arena. In brief, the reader will be marveled by the efficiency of the Thai education system (see Appendix A). Unfortunately, as many teachers and experts

report that the Thai education reform has failed, especially in the language classroom where students leave without being able to communicate in the target language (Mounier & Tangchuang, 2010; Ketudat, 1996; UNESCO, 2011; Kaewmala, 2012; Trivitayakhun, 2010; Bunnag, 2010; Ahuja, 2011; Fernquest, 2011; Trivitayakhun, 2010).

This study implemented student-centered activities in order to enhance the primary school level ESL students' divergent thinking, by encouraging the student-centered activities and enhancing its characteristics that are in common with the divergent thinking characteristics. These can then be implemented by Thai teachers in their primary school level English classroom, and brighten their ideas for classroom activities.

## 2. Objectives of the Study

This study has two main objectives:

1. To study the effectiveness of promoting the divergent thinking of primary school students through learner-centered activities.
2. To investigate students' capacity for expressing creativity before and after the implementation of the learner-centered activities.

## 3. Materials and Methods

### 3.1 Participants

Five students aged between seven and nine years old participated in the study, comprised of two girls and three boys, from Thailand, Japan and Korea. The purposive sampling was chosen by the homeroom teacher, with beginner ESL students who needed extra help in learning English.

### 3.2 Data collection procedure

Four data collection instruments were used in this research: classroom observation, Instances Tests, Teachers' Evaluation of Students' Creativity, and experts' evaluation of students' end products.

#### Classroom Observation

Classroom observations were done daily, throughout the implementation of the lessons to the students. It was done through a classroom observation log and a classroom observation checklist, which was based on the characteristics of creative people, based on Harrington (1990), Runco (1990) and Gedo, (1990), adapted by the researcher to fit linguistic creativity performance, as seen below.

- Imaginative: being able to come up with new vocabulary, expressions and ideas throughout the learner-centered activities, and using them in new situations in order to convey meaning.
- Novel: being able to come up with interesting and unusual vocabulary, expressions ideas throughout the learner-centered activities in the English classroom.
- Original: having and applying unique vocabulary, expressions ideas that others have not thought about or not used in the classroom.
- Problem-solvers: a student who focuses on the given problem and tries to use the previously learned language, including vocabulary and expressions in order to come up with a solution.

- Fit to the situation: being able to change the language use, including vocabulary and expressions, according to the situation imposed in the English classroom.
- Accomplish goals: being able to use one's vocabulary and language knowledge capacity to complete a task.
- Adapt: being able to adjust the language being used to new conditions, which may arise in the language classroom. Being able to adapt the vocabulary being used to the learner-centered activity being presented and participate in the class.
- Open-Minded: being ready to accept new ideas and new concepts regarding the English language, including vocabulary and expressions, and being able to be opened to ideas given by the classmates.
- Experimentalist: the ability to try new vocabulary and expressions, put into practice chunks of language that perhaps have not been studied or presented during class, taking risks regarding the language use, and naming different things in English.
- Independent: not being dependent of the language teacher, being able to work independently or with the support of fellow classmates. Being able to independently use the English language to convey meaning and be communicative.
- Ambitious: showing motivation to succeed and want to learn more, always trying to use new vocabulary and trying to convey meaning through the usage of vocabulary and expressions that have not been previously attempted.

- Confident: being self-assured, not being scared to be part of the learner-centered activities or to try using new vocabulary and expressions.
- Curious: eager to learn new vocabulary, expressions and general English language knowledge and culture, asking questions and wanting to know more about the language.
- Active: engaging in the student-centered activities, actively using new vocabulary, expressions and ideas proposed throughout the lessons, being eager to participate in class discussions and communicatively convey meaning.
- Resourceful: having new ways to overcome difficulties in conveying meaning and helping others by aiding them with new vocabulary, expression and ideas.

The fifteen behaviors presented in the checklist were observed for throughout the lessons, and when they were present they were checked on the list. They were analyzed by summing the number of characteristics checked and calculating their frequency, where the higher the frequency, the higher students' creativity was throughout the class. Therefore, if on day x there were 5 behaviors checked, and on day y there were 7 behaviors checked, students' linguistic creative behaviors were higher on day y. These results will be supported by the experts' evaluation of students' end products. The classroom observation checklist was computed through the statistical analysis software SPSS for frequency.

Apart from the classroom observation checklist, a classroom observation log was kept daily throughout the process of applying the materials and learner-centered activities. They were written and at the end of the lesson, where they were analyzed in order to improve the

learner-centered activities and materials for the next classes. The classroom observation logs were used in complementation to the classroom observation checklist, where students' behaviors were observed.

### **Instances Tests**

The Instances Tests were administered with the students before and after the implementation of the learner-centered activities. It is composed of one set of class discussion and two sets of individual work. The former was done through speaking interaction amongst subjects, containing three open-ended questions, evaluating three aspects of divergent thinking: Flexibility, the number of categories of vocabulary, expressions and ideas which can be found within student's Fluency results, where ideas are grouped into different categories; Fluency, the number of vocabulary, expressions and ideas that students present; and Elaboration, the number of ideas within each category found in Flexibility. Originality was excluded because to know if an idea is original or not it must be compared to another set of responses. The two sets of individual work contained three open-ended questions each, evaluating the four aspects of divergent thinking: Originality, Flexibility, Fluency and Elaboration. The Originality counts in the individual works because then there are works of five students which can be compared to one another in order to see if they are original or not, where if only one student had a certain response it was considered original and if more than one student had the same response it was not considered to be original. Thus, Originality can be observed when the individual work is compared.

The evaluation of the responses were done according to the criteria suggested by Runco (1991) and Kaufman, Plucker & Baer (2008).

The Instances Test results were analyzed individually through the divergent thinking measurements.

The measurements of Originality are excluded from the group discussion and it was the only measurement of Divergent Thinking that was calculated through a comparison of the class's responses was Originality, which is relative to the pool of responses given by the entire sample of subjects. To know if an idea is original or not it must be compared to the group's set of responses (Runco, 1991). For each individual work, a frequency of the ideas produced in the Instances Test was calculated. Ideas that had a frequency of 1, where only one student had produced it, were considered to be original. Then by comparing the amount of original vocabulary, expressions and ideas by each student, the percentage of Originality was calculated.

Fluency was analyzed through the number of total vocabulary, expressions and ideas given by the students in each question, where the mean represented the end results as well Fluency is the number of vocabulary, expressions and ideas that each student came up with, and therefore the number of ideas was summed. So, if a student gave 3 responses to a question, that students' Fluency is 3. Flexibility was analyzed through an investigation of the number of conceptual categories found within vocabulary, expressions and ideas present on the students' responses, where the mean represented the end results.

Flexibility is the number of categories the vocabulary, expressions and ideas produced by the subject can be put into, for example, if a response to the question "Name all of the things you can think of that are strong" with "Superman, Batman, and Wonderwoman," only one category is present, the superhero category, as seen on Table 15. But if the student response is "Superman, Gravity, and Steel," three

categories are used, the superhero category, the force category and the element category.

Elaboration is calculated through the number of vocabulary, expressions and ideas within each category from Flexibility, where the mean is calculated. Elaboration was analyzed through the number of vocabulary, expressions and ideas within each conceptual category found under Flexibility, where the mean represented the end results. If each category has 3 responses, the student's Elaboration is 3, but if one category has 1 response then the student's Elaboration is 1.

Each set administered contains three open ended questions, composed of one Instances question, regarding naming things which look a certain way, for example, naming all the things that are triangular; one Uses question, regarding ideas of what are the uses of a certain object, for example, what can people do with a plastic cup; and one Similarities question, regarding ideas about how two things are similar, for example, how are a fan and an air conditioner similar. These types of questions asked were suggested by Wallach and Kogan (Runco, 1991). The Instances Test was divided into a class discussion and individual work due to the theory that people are more creative when working in groups and elaborating each other's ideas. The instrument was adapted from the Wallach and Kogan Instances Tests (Runco, 1991). The purpose of these tests is to evaluate students' divergent thinking through the divergent thinking measurements of Originality, Flexibility, Fluency and Elaboration, before and after the implementation of the learner-centered activities.

### Teachers' Pre and Post Evaluation of Students' Creativity

The Teachers' Evaluation of Students' Creativity (TESC) (Runco, 1991) was administered with the teachers before and after the implementation of the learner-centered activities (see Appendix H). Based on the experts' evaluation and feedback of the TESC, stating that the original seven-point scale suggested by Runco (1991) was confusing, the evaluation then was adapted to a five-points Likert scale questionnaire. It is composed of twenty-five questions directed to the teachers about the students, where questions number 3, 6, 10 and 14 are guided towards non-creative behaviors and the other twenty-one questions are regarding creative behaviors. The questionnaire aims towards finding the perception of teachers on students' creativity before and after the implementation of the learner-centered activities. The TESC was computed through the statistical analysis software SPSS for the mean and standard deviation results.

### Experts' Evaluation

The Experts' Evaluation of the end products was done after all the learner-centered activities were implemented with the students. The purpose of this instrument is to find out students' divergent thinking progress throughout the implementation of the learner-centered activities. Three experts were chosen according to their background on creativity, where they have either taught classes on creativity or/and have attempted to teach for creativity. They evaluated the products, where each received a package with three works picked selectively from different time periods from each student, one being from Lesson 1, where students were asked to write a story; one being from Lesson 8, where students created their own character and made a brainstorming

list with its characteristics; and one being from Lesson 11, where students were asked to write a story. The scale used for the evaluation was adapted from Bosch (2008), with low, average and high levels of creativity. The students' works were evaluated individually. The Experts' Evaluation results were computed through the statistical analysis software SPSS for the mean and standard deviation results.

### 3.3 Data analysis procedure

The following data analysis procedures were employed based on the instruments that were used to serve the two research objectives.

#### Research Objective 1

In order to study the effectiveness of promoting the divergent thinking of primary school students through learner-centered activities, classroom observations and the experts' evaluation of the end products were used.

The classroom observation checklist was analyzed through the frequency of which the creative behaviors were seen throughout the implementation of the learner-centered activities.

The experts' evaluation of the end products was analyzed based on the three level scale rubric adapted from Bosch (2008). The three pieces of work from each student from Lessons 1, 8 and 11 were compared in order to see if there was an increase or a decrease in creativity throughout the study.

### Research Objective 2

In order to investigate students' capacity for expressing creativity before and after the implementation of the learner-centered activities, the Instances Tests and the Teachers Evaluation of Student Creativity were used.

The Instances Tests were analyzed qualitatively and quantitatively counting students responses in order to come up with a mean result. The analysis of the results were done based on the criteria set by Runco (1991), and Kaufman, Plucker & Baer (2008), where responses are solely added to one another, according to what aspects of divergent thinking are being looked for. The results were analyzed by computing the means from the frequency of the divergent thinking skill aspects, Originality, Flexibility, Fluency and Elaboration, found from the students' responses in vocabulary, expressions and ideas presented (Runco, 1991; Kaufman, Plucker & Baer, 2008).

The Teachers' Evaluation of Students' Creativity was analyzed through the means of responses given by the teachers. Questions number 3, 6, 10 and 14 represented those significant of non-creative characteristics, and therefore were not taken into account in the calculation of the means of creative characteristics. They were calculated using the statistical analysis software SPSS.

## 4. Results and Discussion

### Objective 1

Classroom observations and the experts' evaluation of the end products were used in order to analyze the effectiveness of promoting the divergent thinking of primary school students through learner-centered activities.

Classroom observations were done through the classroom observation logs and classroom observation checklists. They served to observe students' pattern of creative behaviors throughout the lessons.

The classroom observation checklist used throughout the study was composed of creative characteristics that are said to be present within creative individuals (Harrington, 1990; Runco, 1990; Gedo, 1990). It can be seen from the results that students' creative characteristics have increased throughout the lessons, which can be attributed to the learner-centered activities applied with the students. Learner-centered activities such as brainstorming and role-play allowed students to imagine new situations and be confident to take risks (O'Neil & McMahon, 2005; Jones, 2007), which also increase students' divergent thinking. Such traits also aid students in their path towards English learning, where confidence is essential in order to use the language.

As the lessons progressed, students' awareness of the creative concept increased, as seen in the classroom observation logs, with students repeatedly saying that they should be creative and that there were no wrong answers, and so did their creative characteristics. This can be attributed to the activity where students brainstormed for the meaning of creativity, where a class discussion occurred and student discussed about creativity and its benefits. By designing their poster on creativity, students experienced a sense of autonomy, which motivated them. The class discussion generated a good setting for communicative English language to be used, where students picked up new vocabulary from one another (Hall, 2006). When designing the poster and being invited to work autonomously, students were exposed to an atmosphere very close to real life situations, which gave them the opportunity to experience the language they will use everyday, rather than the

language they would only use in the English classroom otherwise (Jones, 2007).

On the last lessons students' creative characteristics ranged between 87% and 93%. That was possible due to the implementation of the learner-centered activities, which allowed student to become autonomous, to use their imagination, to independently solve problems that they encountered, to take action for their own learning, to brainstorm and to take part in classroom discussions, all of which increased their divergent thinking skills. Not only were such learner-centered activities suiting to students' needs and preferences, but they also increased students' creativity, while using the English language communicatively. Students' creative characteristics were higher by the end of the study because they had been continuously exposed to the learner-centered activities which fostered a variety of different skills also present in divergent thinking (Jones, 2007; Hall, 2006; Froyd & Simpson, 2010; James, 2010). These were done through not only speaking, but also through listening, reading and writing in the target language (Runco, 1990; Amabile, 1990; Runco, 1991).

From the results of the classroom observations, it indicates that throughout the study the learner-centered activities had effectively promoted the divergent thinking and creativity of the primary school level students whom participated in the study.

Regarding the experts' evaluation of the end products, it was also used to study the effectiveness of promoting the divergent thinking of primary school students through learner-centered activities.

Three experts, whom have had previous involvement with creativity, did the Experts' Evaluation of the end products. They investigated three works from three different time periods. The purpose of this instrument was to investigate if students' divergent thinking had

changed throughout the application of the learner-centered activities to the primary school level.

The results showed that students' divergent thinking increased throughout the lessons, where in Lesson 1 students had low divergent thinking skills ( $M = 1.48$ ), and both in Lesson 8 ( $M = 1.733$ ) and in Lesson 11 ( $M = 2.0$ ) students had average divergent thinking. These results show that the usage of learner-centered activities gradually increase students' divergent thinking due to the characteristics they share in common, such as autonomy, risk-taking and confidence. By continuously exposing primary level students to learner-centered activities, such as asking them to brainstorm about different topics, always emphasizing that when they asked questions they should think about it on their own or asking them thinking questions to guide them towards the answer, their autonomy, motivation, imagination, problem-solving skills, active learning, brain storming and risk-taking skills improve, therefore enhancing their divergent thinking. As a result, primary level students' English improves by inviting them to think in the language, rather than readily giving them the answers.

The end product of Lesson 1 was a story written individually by the students in the first day of class, in Lesson 8 the end product was done individually as a list of brainstorming on a character, and in Lesson 11 the end product was a story written individually by the students in the last day of class. The end products from Lesson 1 and 11 involved students to write creatively, using their imagination, autonomy and motivation in order to write their own stories. The end product of Lesson 8 involved students sharing ideas at first, and then using their student-centered skills to brainstorm characteristics of characters. The qualification of the experts in the divergent thinking skills area was essential, as Craft (2009) argues that researchers such as Csikszentmihalyi, Feldman and

Gardner emphasize the importance of experts in a field of knowledge to recognize a work as being creative, as that shows a difference from what is commonly accepted to be the norm to what is creative in that area. The experts chosen are from the field of English teaching, highlighting that the learner-centered activities used with the primary school level ESL students throughout the study improved their divergent thinking in the language classroom, where the learner-centered activities were directed towards English language learning as well.

It can be concluded that the experts' evaluation of students' end products show that the learner-centered activities have effectively promoted the divergent thinking and creativity of the students whom participated in the study.

## Objective 2

The Instances Tests and the Teachers Evaluation of Student Creativity were used in order to investigate students' capacity for expressing creativity before and after the implementation of the learner-centered activities.

The pre and post Instances Tests were administered with the students. The pre and post-tests administered were an adaptation of the Instances Test from Wallach and Kogan (Runco 1991). The results were calculated for Originality, Flexibility, Fluency and Elaboration, using questions soliciting Instances, Uses and Similarities.

Most post-test results have shown an increase in students' responses both regarding linguistic creativity and language production. Originality was calculated through the students' individual works, where a comparison of their responses was done. Although an idea might not be new for the world, it can be new for the child if the child came up

with it, and therefore considered creative (Epstein, 1990). Class discussion did not originate Originality results because the class came up with one set of ideas together, not having any other sets to compare its originality with. The individual results showed an increase in Originality, from 6.87% of the vocabulary, ideas and expressions being original in previous to the implementation of the learner-centered activities to 10.3%. This means that students were capable of thinking of different responses from their peers, which can be attributed to the skills in which the learner-centered activities fostered in the students. The skills such as autonomy, imagination, problem solving, brainstorming and risk-taking were fostered throughout the learner-centered activities. Autonomy allowed students to think on their own, without consulting their classmates for ideas played an important role in Originality. Imagination allowed students to think of different Uses, Instances and Similarities responses allowed them to think outside the box. Problem solving skills gave them the ability to solve questions that may have raised throughout the activity, allowing them to have more time to think of new vocabulary in their responses, rather than stopping to ask the teacher. Brainstorming skills encouraged them to link ideas given by their classmates to their own ideas, encouraging them to think of new ways that they had not thought of before. And risk-taking skills gave students the confidence to take risks and be opened to the new concepts that the researcher or their classmates might suggest.

The Flexibility results of the class discussion were an exception and declined, going from 7.33 categories of ideas, vocabulary and expressions to 5.33 categories. This decrease shows that within the vocabulary, expression and ideas students produced, there were less conceptual categories. Although an increase in Flexibility shows an increase in divergent thinking, this reduction can be explained by the

group discussion factor. Since students elaborated more on the ideas that were given by their peers, they did not spend time thinking of other categories as much as they would if they worked individually. In their individual work, students' Flexibility increased from 3.07 to 4.37 categories, showing that when working independently students do not elaborate each category as much, but come up with a higher number of ideas that belong to different categories. This means that students explored a wider variety of vocabulary within the language, rather than restricting themselves to one category of vocabulary. Students' behaviors throughout collaborative learning activities were to support the ideas given by their classmates, building upon them, rather than jumping to ideas of different categories. Students built and elaborated on each other's ideas.

Furthermore, Fluency increased from 13.66 vocabulary, ideas and expressions to 20.33 during the class discussion and from 5.1 vocabulary, ideas and expressions to 9.36 during the individual work, showing that after the students were exposed to the learner-centered activities they were equipped to think divergently and come up with more ideas based on one stimulus. Students were capable of using their imagination to come up with new ideas and took risks to suggest ideas that were unusual. Also, they became autonomous and were more confident. The learner-centered activities, such as the brainstorming, done throughout the lessons equipped students to think of a variety of different responses to stimuli. Moreover, the classroom discussions allowed them to understand that problems could be solved and taken from a variety of different points of view, where oftentimes more than one answer is acceptable. Similarly, role play showed them that the way they saw and understood a dialogue could be very different from the

way other people did, experiencing at first hand that it was acceptable in language to have more than one answer only.

Additionally, Elaboration, the number of vocabulary, ideas and expressions within each conceptual category found in Flexibility, has also increased both in the class discussion from 1.86 vocabulary, ideas and expressions to 3.83, and in the individual works from 1.67 to 2.14 vocabulary, ideas and expressions. This growth in responses can be attributed to brainstorming, imagination, and confidence. Students were trained to take one stimulus and develop ideas from it, brainstorming for vocabulary, expressions and ideas. They used their imagination, where throughout the learner-centered activities students were encouraged to imagine and use English to express new ideas. If the ideas were not well accepted by their classmates they were encouraged to believe that each person thought differently and that all ideas and opinions were valid, which as a result also increased their confidence. Such skills were very apparent in the post Instances Tests classroom setting, where students were confident enough to do their own work, without stopping to ask for spelling or if their ideas was acceptable or not.

Finally, the Instances Tests have shown that the learner-centered activities employed with student have increased their divergent thinking, and their abilities for expressing their English communicative skills, vocabulary and writing skills. It can be seen that students were able to handle the English language with more autonomy, imagination and confidence after the implementation of the learner-centered activities. This gave them a higher capacity for expressing their creativity.

Likewise, the Teachers Evaluation of Student Creativity was used in order to investigate students' capacity for expressing creativity before and after the implementation of the learner-centered activities.

The pre and post evaluations administered with the teachers, the Teachers' Evaluation of Students' Creativity (TESC) (Runco 1991), gave an impression of the teachers' perspective on students' creative behaviors before and after the implementation of the lessons.

The Teachers' Evaluation of Students' Creativity has shown that students' had increased their creative behaviors, according to teachers' perceptions throughout the study. Students were considered by the teachers to be considerably creative ( $M = 3.05$ ) in the pre evaluations, and very creative ( $M = 3.52$ ) in the post evaluations. This shows that students have increased their capability of expressing creativity, which can be attributed to the skills that the learner-centered activities fostered in the primary level students. Increasing these characteristics facilitate language learning as they are the same creative characteristics used in learner-centeredness, which is an effective English language learning methodology. As previously mentioned, a variety of these skills are shared between divergent thinking and student-centeredness. Teachers responded that students' non-creative behaviors decreased, where in the pre evaluations the students were considered to be considerably non-creative ( $M = 2.73$ ), and in the post evaluations they were considered by the teachers to be slightly non-creative ( $M = 2.25$ ). This reduction was expected, because if students' were said to be more creative by the teachers, it is only natural that their non-creative behaviors have dropped. Students became more confident to use the language not only in the lessons administered by the researcher, but also in the lessons administered by the homeroom teacher, where she often mentioned that students' became more outgoing once the study began being implemented.

Lastly, previous researches which were done using the TESC have been proven to be reliable, as teachers know students behaviors

for a lot longer than the researcher does, and therefore are able to access students more effectively (Runco 1991). In this study, TESC results are used together with the results of three different instruments of data collections, all of which support each other's findings, emphasizing its reliability.

In conclusion, the results have shown that the primary school level students present in the study increased their capability of expressing their linguistic creativity after the implementation of the learner-centered activities.

## 5. Conclusion

In conclusion, the results of this study have opened new doors to the application of the education reform aimed towards the English language classroom. The results have showed that students' divergent thinking and linguistic creativity can be enhanced during the English language class by using learner-centered activities as the main method of instructions, and taking into account that one of the aims of the education reform is to have students working creatively, learner-centered activities such as the ones used throughout this research will aid teachers on how to begin changing their teacher-centered classroom into a learner-centered classroom. The positive results show that teachers can be confident in applying such learner-centered activities in their classroom.

It seems to be clear that the findings of this study have positive results towards the objectives of the study and confirm its expectations. All the analyzed results have proven that students' creativity have increased after the lessons were implemented, and therefore promoting the divergent thinking of primary school students through learner-

centered activities in the English language classroom are effective. Students were capable of expressing their higher linguistic creative characteristics by using vocabulary, expressions and ideas related to the lessons after the implementation of the learner-centered activities in the English language classroom.

This research, therefore, suggests that by implementing a student-centered approach in the English language classroom, students' divergent thinking is enhanced. According to many experts, including the internationally famous creativity expert Robinson (2011), creativity is an essential tool to have in the future, as the world is changing, and with it, new ideas and problem-solvers with the capacity to think creatively are greatly needed if the people in the world are to keep up with the ever changing technology.

## 6. Recommendations

Creativity is a growing area of research, where a growing number of researchers are interested on what triggers creativity and what is behind creative behaviors. As English teachers, the researcher aims to bring the creativity in the language classroom in order to aid students not only in the enhancement of creativity, but also in the acquirement of the English language. As a fairly new area of study, there is a lot of room for future inquiry. There are a variety of opportunities in implementing learner-centered activities such as classroom discussion, group works, brainstorming, etc., in order to enhance students' divergent thinking in the English language classroom at schools, including Thai schools. Following are some recommendations.

1. It is always important to keep in mind as a teacher researcher that whenever implementing a new concept, it is essential to make sure that all participants have a clear understanding of what the concept is composed of in order to avoid frustrations regarding misunderstandings. Therefore, whenever working with creativity, it is essential that participants are aware of the creative concept as well as what they can do in order to achieve it. This can be done through learner-centered activities such as brainstorming, as it was done in the study, or class discussion, where students talk about what they believe creativity to be.

2. It is important to keep a class time at the beginning of the course in order to make sure that everyone involved is aware of the objectives of the lesson.

There are a few implications to the study reported, including the small subject numbers, the intercultural setting in which it took place, and the time limit in which the learner-centered activities were implemented, therefore, a few future study suggestions are can be seen below.

1. A similar study with a larger sample size and a greater amount of hours, since the small sample and the low amount of hours can compromise the reliability of the study. Therefore, a similar study in greater scales can increase the reliability of the theory that learner-centered activities can increase students' creativity in the English classroom.

2. A study on English teachers' awareness of creativity in the classroom, in order to understand whether students' decrease in

creativity along the years is due to unprepared teachers in this area, or due to the materials the institution obligates teachers to implement.

3. A study on designing a creative teacher training activities/curriculum, which can direct teachers' towards a more successful approach towards English teaching. Teachers could be introduced to using learner-centered activities to increase students' creativity and be trained on the best methods to do so.

4. An investigation of students' creativity in higher levels of the school, to put into practice learner-centered activities which can assist higher level school students to become creative within the language classroom, perhaps solving problems such as of the students who spend years trying to learn the language but fail.

5. A study where parents' perspectives in creativity are and how they influence students' language learning, looking at the home environment and its effects on language learning.

6. An investigation of cultural believes towards creativity and language, analyzing how they influence students' language learning and acquisition.

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