Effectiveness of Creative Problem Solving Framework in English Language Teaching at Elementary Level in Pakistan

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Abstract

This study investigates the effectiveness of Starko creative problem solving framework (CPS) in teaching English at grade 6. Pretest Posttest Control Group Design with 40 students of public schools participated in the study. Students were equated on achievement test for random allocation in the groups. To deliver the lessons on CPS framework, the researcher obtained three days training from the supervisor that was aimed at encouraging discussion, generating ideas, preparing for action and acknowledging creative solutions based on the framework. Three achievement tests were used as pretests and posttests for gathering data to calculate the mean difference after studying three units. CPS Framework was effective in learning English among high and low achieving students because it focuses on the problem solving mode, allows multiple perspectives and provides space to students with academic multiple competence. The component of CPS Framework about "Preparing for action" provided space for students to think and implement practical tasks, which supported in generating creative ideas. Students conceived creative ideas in the form of constructing sentences on different patterns, organising paragraphs in logical sequence and reaching at self-correction. It is suggested for the educators to create awareness in institutions regarding the use of CPS Framework in order to promote creative thinking skills among students.

Keywords*: English Language, Creative Teaching, Creative Solving Framework*

Introduction

Creative thinking is an intrapersonal as well as interpersonal process of producing unique and innovative ideas through rational planning and working on the goals set dedicatedly (Van-Hook & Tegano, 2002). It is also a systematic process of evaluating one's own actions, breaking the information into pieces, and then reassembling it in such a way that it develops a unique entity or process (Morrell, (2015). In addition, it is an attitude embedded in curiosity, challenging ideas, asking questions, using imagination to generate innovative and out-of-the-box solutions (Bouchard, 2013). In the same line, Tsai (2012) reported about Vygotsky, who claimed that imagination enables human beings to think creatively and lays the foundations for creative activities. Thus, thinking originates by reflecting on experiences that occurred in one's daily life; and imagination helps it to explore, develop and promote new ideas. Both previous experiences and new ideas help an individual to plan successfully for their life and solve problems (Nilsson & Ferholt, 2014). On the whole, ingredients of creative thinking are observing, imagining, practicing and reflecting to solve problems that enable a person to become flexible, imaginative, confident, creative and innovative (Black, 2005; Edwards, 2001 & Anwar, 2000).

According to Starko (2017), creative thinking is nurtured and developed by teachers in schools by independently engaging students in classroom activities, providing supportive materials and opportunities for observing problems from multiple perspectives, and maintaining a collaborative and humanistic environment in the classroom. Several studies have established that problem-solving, exploring new options and inquiry-based projects promote creative thinking skills in students (Leonard, 2018). In Pakistani public schools, the majority of English teachers are underqualified, less experienced and they use traditional methods of language teaching to complete course content instead of promoting creative and problem-solving activities in the classroom (Ahmad, Rehman, Ali, Iqbal, Ali & Badshah, 2013). Moreover, threatening phrases by the majority of the teachers e.g., "study this chapter because it will be in your test, "do well otherwise you will not get admission in certain elite level colleges, not get good grades, etc." are also damaging for maintaining creative environment of the classroom. Consequently, students may remember the content for a short period of time, but they would not be able to learn and understand the multiple meanings, applications, critical and creative aspects of the ideas for further usage (Naviwala, 2016; Shaheen, 2016). Aziz, Bloom, Humair, Jimenez, Rosenberg and Sathar (2014) also claimed that rote memorization is practiced in the public schools of Pakistan.

Supportive behaviour of the teacher and stress free environment of the classroom influence creative thinking and learning habits of students (Malik, 2015). Stress free environment can be established if teachers attend to the students' problems and their needs with cooperative response and feedback (Mushtaq & Mustafa, 2015). Contrary to this, language learning environment of classroom in government schools of Pakistan has a higher rate of anxiety that may have negative effects on creativity. Moreover, it has been observed that the majority of the teachers drive classroom learning with Grammar Translation Method (GTM) that does not create any enthusiasm and joy in learning (Shaheen, 2016). Consequently, involvement of students in the learning process through open ended questions and real life activities, that may provide them with space to think, plan, examine and evaluate for creative learning instead of recalling readymade, are missing in the lessons (Ahmad et al., 2013). In addition to this, collaborative activities**,** that may provide opportunities for the students not only to evaluate the performances of their group members but also learn about their learning styles, methods of gathering information and reaching the conclusions**,** are also missing that has detrimental effects on creative language learning (Aziz et al., 2014).

The Creative Problem Solving Model was formerly developed by Osborn (1963) and it was further modified by Parnes in 1981 and still further explained by Iskasen and Treffinger in 1985. It consists of four main components. According to Starko (2017), creative thinking takes learning on a constructive mode, consisting of four steps: *understanding the challenge, generating ideas, preparing for action, and planning the approach. Understanding the challenge* includes: (i) recognizing the goal that needs to be achieved**;** (ii) looking for the sources from which researchers gather data about that particular goal**;** and (iii) understanding the challenge that researchers will be facing to achieve that goal. *Generating Ideas* includes: (i) thinking of ideas to solve the challenge**;** and (ii) trying to come up with multiple possible solutions for reaching the goal successfully. *Preparing for Action* includes selecting the most relevant and practical solution, for implementing to eliminate the challenge and reach that targeted goal. Then the creative solutions are acknowledged and new ways of problem solving are accepted at this level. The duties and responsibilities of each individual are listed along with the available resources for solving the problem. *Planning the Approach* is the fourth component of the framework but it is at every stage and is considered as an outline to carry the whole problem solving process. It helps

to stay on track during the process. It has further two parts**:** *designing processes* and *appraising tasks*.

Figure 1
Creative Problem Solving Framework. (CPS Version 6.1)
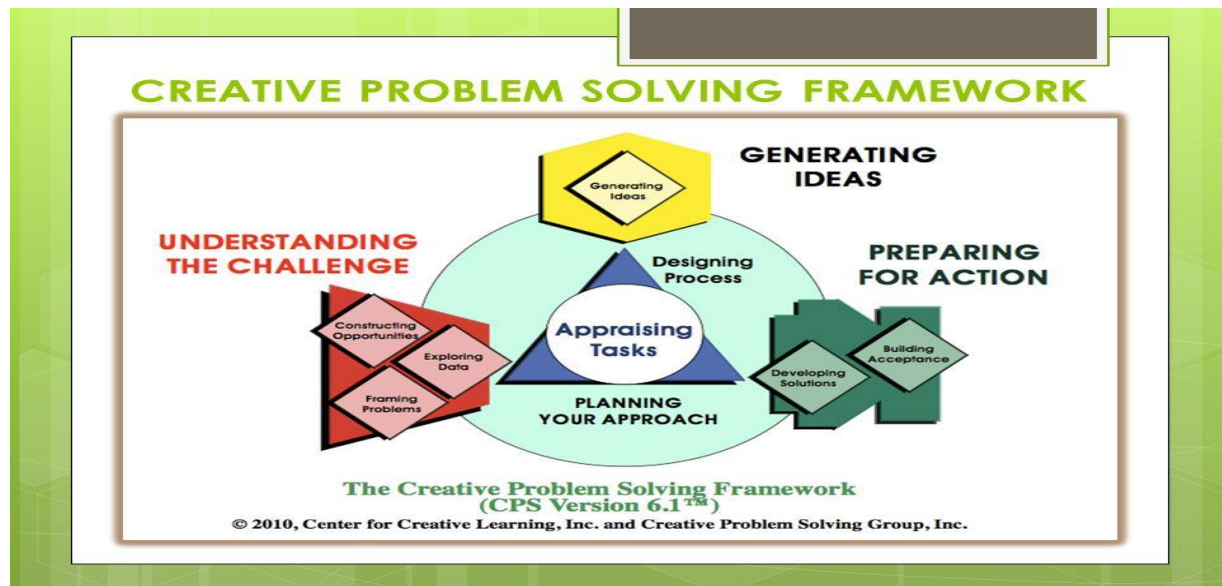

Statement of the Problem

English is taught as a compulsory subject from grade one to grade fourteen in Pakistan. However**,** teachers, research supervisors**,** and recruitment agencies complain about the learners' poor performance in the four basic skills (listening, speaking, reading, and writing). It has been observed and established in the research studies that English has been taught and learnt in rote, mechanical and content driven modes (Awan & Shafi, 2016; Awan & Hiraj, 2016; Shaheen, 2018). Creative mode of language learning is almost missing that is important for promoting not only linguistic competence but also teaching and learning of higher order thinking skills. Reliance of teachers on helping materials in the form of test papers, guides or notes has also damaged creative thinking skills in students. In response to the above scenario, this study was planned to promote creative thinking skills in teaching of English at grade 6 based on Starko's Model of Creative Problem Solving framework in developing and promoting creativity. This study was experimental in nature.

Figure 2

Conceptual framework
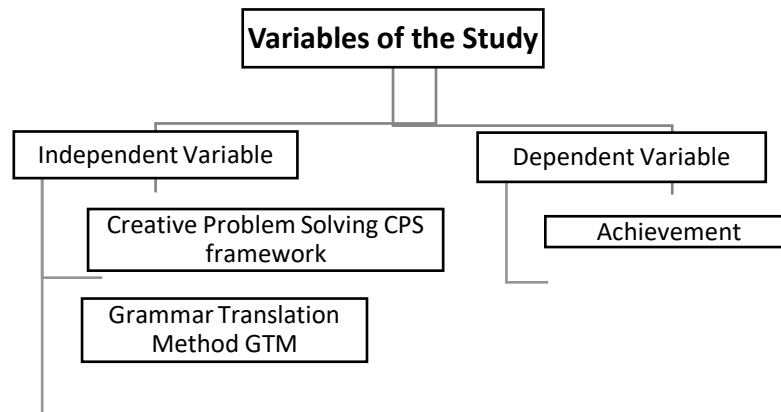
Research Objectives

The objectives of the study are to:

1. investigate the effectiveness of Creative Problem Solving Framework in promoting creative thinking in teaching English to the students studying at grade six;

2. compare the performance of the high achievers taught with the Creative Problem Solving Framework and the Grammar Translation Method (GTM) in promoting creative thinking in teaching English to the students studying at grade six; and

3. compare the performance of low achievers taught with the Creative Problem Solving Framework and the Grammar Translation Method (GTM) in promoting creative thinking in teaching English to students studying at grade six.

Methodology of the study

The methodology of the study is explained under the following headings

Research Paradigm, Approach and Design

In educational research, the term paradigm is used to describe the perspectives, thoughts and beliefs which inform the understanding and explanation of research data. It also reflects the beliefs of the researcher related to the world he/ she lives in (Kivunja & Kuyini, 2017). In this research, the researcher adopted the positivist paradigm that was first proposed by Comte (1798-1857),

French philosopher in the field of sociology (Steketee, 2020). The positivist paradigm posits that reality exists independently that is not dependent on human senses and contextual situations. Positivists believe that every phenomenon has a cause-and-effect relationship that can be observed and measured objectively. To collect data, the positivist researchers adopt the scientific method of experimentation (Rehman & Alharthi, 2016), and this study aimed to investigate the effects of the Creative Problem Solving Framework on students' learning of creative thinking skills in English at grade six, therefore, the positivist paradigm was considered suitable to use for this study.

Two main approaches are used in educational research: inductive and deductive. The deductive approach is intended to test theory, model, or framework (Bloomberg & Volpe, 2018). For this purpose, the researcher has used the deductive approach which is also called "top-down" approach. It guided the researcher to look up the framework and narrow it down to some specific objectives and hypotheses to measure and check its effects for declaring the effectiveness or ineffectiveness of the PSF.

The researcher used Pre-test Post-test Control Group Design to conduct this study. This design ensures controlling of **i**nstrumentation validity threats by using the same instrument as the pretest and posttest. Threat to Maturation was controlled by using the control group, random assignments of subjects and managing the experiment duration only for 13 working days. The threat to carry-over effects was eliminated by teaching to the control and experimental groups on alternate days.

Diagrammatical presentation of the design is as under:

STEPS	PROCEDURE GROUP 1	PROCEDURE GROUP 2	AIM
Step 1	PRETEST	PRETEST	To measure the degree of the dependent variable before the treatment
Step 2	Random assignment for Control Group taught through GTM	Random assignment for Experimental Group Taught through CPS	To control subject characteristics threat to internal validity
Step 3	Treatment Type	Treatment Type	To influence the dependent variable
Step 4	POSTTEST	POSTTEST	To measure the degree of change

Population and Sampling

The population of the study were the students studying in the Federal Government High Schools CANTT Garrison of Rawalpindi city. The total number of Federal Public High Schools in Rawalpindi city is 20. The school was selected applying purposive sampling technique for three reasons: the school principal permitted to adjust students in control and experimental groups, availability of more than 50 students in grade 6, permission of student-parents to conduct the study. Owing to Covid-19, it was difficult in getting access to the schools for teaching for one month. Federal Government Sir Syed Boys Secondary School was one of the schools that granted access after obtaining approval from the Director Schools, Federal Directorate of Education CANTT Garrison. 40 students and one grade 6 English teacher were the subjects of the study.

Instrument Development, Validation and Reliability

The researcher developed three achievement pre-tests based on three selected textbook chapters that were also used as posttests for investigating the effectiveness of CPS in promoting creative thinking in learning English. To control the instrumentation validity threats, the same test was used as posttests. The assessment sheets were formulated aiming at the four basic principles of CPS framework: 1) understanding the challenge; 2) generating ideas; 3) preparing for action; and 4) reflection. Each unit had different number of subjective and objective items. A rubric was constructed for grading subjective items. In the pretest and posttest of unit 1, there were 55 items. In the pretest and posttest of unit 2, there were 54 items and in the pretest and posttest of unit 3, there were 57 items. Lessons and assessment tasks were correlated to each other, and they were writing a paragraph after observing a picture/video, correcting grammatical errors in pair work, checking coherence, vocabulary competence, reading comprehension questions in the form of proposing title, answer questions.

Validity is one of the main parameters in order to check the usability and effectiveness of the instrument in quantitative research. Validity tells the researcher whether the developed or adopted tool is actually measuring what it is intended to measure (Oluwatayo, 2012). The achievement tests were sent to the school teachers and language experts for validation. They

proposed a few changes in the vocabulary selection and using clear and understandable instructions in the tests.

To measure the reliability of the developed tests, the researcher conducted pilot testing. It was conducted on a small sample. The statistical results ensured the reliability of the test by using Cronbach Alpha. According to Tavakol and Dennick (2011) & Lavrakas (2008), Cronbach Alpha 0.70 and above is considered acceptable in social sciences. Reliability values are as under:

Table 1

S.No	Unit Number	Reliability
1	Unit 1	.82
2	Unit 2	.81
3	Unit 3	.71

For scoring the subjective type items, the rubric was constructed using the criteria based on CPS framework: Understanding the Challenge, Generating Ideas, Preparing for Action and Reflection. The criteria were leveled as proficient (4), expert (3), developing (2), needs development (1). It helped to ensure objectivity in scoring subjective type items.One score has been allotted to each objective type items.

Formulation of groups

A general academic English test was developed by the researcher that consisted of 45 MCQs to allocate students to experimental and control groups. The students were assigned to the groups randomly on the basis of their scores to ensure equality between the groups. The high achieving students, the average students, and the low achieving students were equally divided into two groups; experimental and control. The students above the mean were considered high achievers and students below the mean were termed as low achievers. After excluding the outliers, Twenty (20) students were assigned to each group.

Selection of textbook topics

There are total ten chapters in the English textbook of grade 6, which is currently taught in the Federal Public Schools of Rawalpindi city. All units were categorised into three groups: Ethics and sociology, Science fiction, and poetry. One unit from each category was selected randomly. The details of category, chapters and lessons are as under:

Table 2

SN	Category	Chapter	Lessons
1	Ethics and sociology	The Happy Prince	4
2	Poetry	Little Frog in the Well	6
3	Science Fiction	Expressions for Creativity	3

Training to conduct experiment

To deliver the lessons on CPS framework, the researcher got three days training from the supervisor. It was aimed at practical activities related to the introduction of lessons, classroom interaction, utilization of available resources, encouraging discussion, eliminating threats, understanding the challenge, generating ideas, preparing for action, recognizing the goal, generating ideas and acknowledging creative solutions. Lesson plans were based on the four-step sequence of CPS framework. The researcher taught both groups herself because of the unavailability of expert teachers to teach CPS framework.

The researcher contacted the principals of multiple schools in order to conduct the experiment for 26 hours in 13 working days. Owing to Covid-19 and the repeated lockdown situations, only one of the schools responded positively. With the authority letter from the university, the researcher obtained permission from the Federal Directorate of Education Cantt Garrison Rawalpindi and approached the school for the conduct of experiment. The school principal was briefed about the nature, procedure and cooperation required of students and the teachers to conduct the experiment. The researcher was, then, introduced to the concerned English teachers and grade 6 students concerned.

Data collection and analysis

First, the researcher decided to have two separate sections of grade 6 in order to conduct study. Then, owing to covid-19, the schools were allowed to run on 50% attendance. For this, if the researcher had selected two sections, then she would have to teach one lesson for two days in each section. Keeping in mind the time and possible situations related to covid-19, the researcher decided to select one section and allocated 50% students to experimental group and the other 50% students to the control group on the basis of the General English Language test. Students were shuffled in the two groups according to their performances on the group equalisation academic test. After the treatment, the scores of the pretests and posttests were tabulated and ran through SPSS version 17. An independent t-test was conducted on SPSS software in order to get

the statistical results. The data were separately analysed of high achieving and low achieving students. The participants of the study were clearly informed about the objectives and the significance of this study.

Results of the Study

At the end of the treatment of each unit, post-tests of the chapters were given to both the groups. Independent t-test was applied to the groups as a whole, between the high achievers and low achievers of experimental and control groups in order to find out the difference in their results. Tabular analysis about the difference between the groups are as under:

Table3

Difference between students' performance taught with CPS Framework & GTM of unit 1 on pretest

Group	N	Mean	SD	DF	t value	p value
Experimental	20	10.50	1.64	38	1.636	.110
Control	20	11.50	2.19			

Table 4

Difference between the performances of whole group taught with CPS Framework & GTM of unit 1 on posttest

Group	N	Mean	SD	DF	t value	p value
Experimental	20	23.15	6.35	38	-5.698	.000
Control	20	14.55	2.28			

Table 5: Difference between high achievers' performances taught with CPS Framework & GTM of unit 1 on pretest

Group	N	Mean	SD	DF	t value	p value
Experimental	8	12.00	1.60	14	2.333	.035
Control	8	13.75	1.38			

Table 6

Difference between high achievers' performances taught with CPS Framework & GTM of unit 1 on posttest

Group	N	Mean	SD	DF	t value	p value
Experimental	8	28.88	2.53	14	-10.285	.000
Control	8	16.25	2.37			

Table 7

Difference between low achievers' performances taught with CPS Framework & GTM of unit 1 on pretest

Group	N	Mean	SD	**DF**	t value	p value
Experimental	12	9.50	.52	**22**	**1.593**	**.125**
Control	12	10.00	.95			

Table 8

Difference between low achievers' performances taught with CPS Framework & GTM of unit 1 on posttest

Group	N	Mean	SD	DF	t value	p value
Experimental	12	19.33	5.08	22	-3.889	.001
Control	12	13.42	1.37			

Table 9: Difference between students' performance taught with CPS Framework & GTM of unit 2 on pretest

Group	N	Mean	SD	DF	t value	p value
Experimental	20	20.35	3.79	38	-1.286	.206
Control	20	19.00	2.77			

Table 10

Difference between the performances of whole group taught with CPS Framework & GTM of unit 2 on posttest

Group	N	Mean	SD	DF	t value	p value
Experimental	20	41.00	7.00	38	-9.303	.000
Control	20	24.25	3.97			

Table 11

Difference between high achievers' performances taught with CPS Framework & GTM of unit 2 on pretest

Group	N	Mean	SD	DF	t value	p value
Experimental	8	23.25	3.32	14	-2.852	.013
Control	8	19.38	1.92			

Table 12

Difference between high achievers' performances taught with CPS Framework & GTM of unit 2 on posttest

Group	N	Mean	SD	DF	t value	p value
Experimental	8	45.75	3.95	14	-10.718	.000
Control	8	24.75	3.88			

Table 13

Difference between low achievers' performances taught with CPS Framework & GTM of unit 2 on pretest

Group	N	Mean	SD	DF	t value	p value
Experimental	12	18.42	2.74	22	.270	.790
Control	12	18.75	3.27			

Table 14

Difference between low achievers' performances taught with CPS Framework & GTM of unit 2 on posttest

Group	N	Mean	SD	DF	t value	p value
Experimental	12	37.83	6.88	22	-5.990	.000
Control	12	23.92	4.16			

Table 15

Difference between students' performance taught with CPS Framework & GTM of unit 3 on pretest

Group	N	Mean	SD	DF	t value	p value
Experimental	20	17.2	4.16	38	-3.110	.004
Control	20	13.7	2.83			

Table 16

Difference between the performances of the whole group taught with CPS Framework & GTM of unit 3 on posttest

Group	N	Mean	SD	DF	t value	p value
Experimental	20	25.15	4.91	38	-6.847	.000
Control	20	16.55	2.72			

Table 17

Difference between high achievers' performances taught with CPS Framework & GTM of unit 3 on pretest

Group	N	Mean	SD	DF	t value	p value
Experimental	8	19.88	4.42	14	-3.067	.008
Control	8	14.25	2.71			

Table 18

Difference between high achievers' performances taught with CPS Framework & GTM of unit 3 on posttest

Group	N	Mean	SD	DF	t value	p value
Experimental	8	27.38	4.24	14	-5.421	.000
Control	8	17.25	3.15			

Table 19

Difference between low achievers' performances taught with CPS Framework & GTM of unit 3 on pretest for promoting creative thinking

Group	N	Mean	SD	DF	t value	p value
Experimental	12	15.42	2.96	22	-1.720	.099
Control	12	13.33	2.96			

Table 20

Difference between low achievers' performances taught with CPS Framework & GTM of unit 3 on posttest

Group	N	Mean	SD	DF	t value	p value
Experimental	12	23.67	4.92	22	-4.785	.000
Control	12	16.08	2.42			

Findings, Discussion, Conclusion and Recommendations

Findings of the Study

The findings of the study are discussed keeping in view the research objectives and hypothesis of this study.

Finding Related to the Research Objective 1: Following are the findings of the effectiveness of Creative Problem Solving (CPS) framework in teaching English to students studying at grade 6 for promoting creative thinking skills.

1. The students taught with CPS framework performed better on the posttest as compared to the students taught with GTM. It demonstrated the success of CPS framework in promoting creative thinking among students. The posttest of unit 1 has established that CPS framework had significant effects in promoting creative thinking in teaching English at grade 6. The scores of the experimental group were significantly higher than the scores of the control group (experimental group- M=23.15, **SD=6.35**) and of control group- M=14.55, SD=2.28).

2. The posttest scores of unit 2 showed the improvement of students taught with CPS framework. The students taught with CPS framework exhibited better performance than the students taught with GTM (experimental group- M=41.00, **SD=7.00**) and of the control group- M=24.25, SD=3.97).

3. The posttest scores of unit 3 revealed that the performance of students taught with CPS framework was significantly higher than the performance of students taught with GTM (experimental group- M=25.15, **SD=4.91** and of the control group- M=16.55, SD=2.72).

Finding Research Objective 2: Following are the findings of the comparison of the performance of high achieving students taught with CPS framework and GTM for promoting creative thinking skills.

4. The performance of high achieving students taught with CPS framework was significantly higher on the posttest of unit 1 as compared to the high achieving students taught through GTM. The scores were significantly different on the posttest (experimental group M=28.88, SD=2.53; and of the control group M=16.25, SD=2.37).

5. The performance of high achieving students taught with CPS framework was significantly higher on posttest of unit 2 as compared to the high achieving students taught through GTM. The scores were significantly different on the posttest (experimental group M=45.75, SD=3.95; and of the control group M=24.75, SD=3.88).

6. The performance of high achieving students taught with CPS framework was significantly higher on posttest of unit 3 as compared to the high achieving students taught through GTM. The scores were significantly different on the posttest (experimental group- M=27.38, SD=4.24; and of the control group- M=17.25, SD=3.15).

Finding Research Objective 3: Following are the findings of the comparison of the performance of low achieving students taught with the CPS framework and GTM.

1. The performance of low-achieving students taught with CPS framework was significantly higher on the posttest of unit 1 as compared to the high achieving students taught through GTM. The scores were significantly different on the posttest (experimental group M=19.33, **SD=5.08**; and of the control group M=13.42, SD=1.37).

2. The performance of high achieving students taught with CPS framework was significantly higher on posttest of unit 2 as compared to the low achieving students taught through GTM. The scores were significantly different on the posttest (experimental group M=37.83, SD=6.88; and of the control group M=23.92, SD=4.16).

3. The performance of high achieving students taught with CPS framework was significantly higher on the posttest of unit 3 as compared to the high achieving students taught through GTM. The scores were significantly different on the posttest (experimental group- M=23.67, SD=4.92; and of the control group- M=16.08, SD=2.42).

Discussion and Conclusion

CPS Framework is found effective in promoting creative thinking skills among students studying English at grade 6. This framework is more supportive in engaging students in the learning activities planned by the teacher which consequently enhances their performance. Even the students who are low achievers, performed better because the learning content of CPS framework is in the problem solving mode that has involved students in the learning process effectively. During the classroom activities, they used to come up with unique and creative ideas to address the challenge that was posed to them in the form of learning tasks. These results agreed to the results of the studies conducted by Widya, Nurpatri, Indrawati and Ikhwan (2020); Tambunan (2019); Samson (2015); Klegeris, Bahniwal and Hurren (2013); Crossman (2013); Al-Khatib (2012); Rinkevich (2011).

The component of CPS Framework about "Preparing for action" has provided space for the students to think and implement practical tasks to achieve the targets that has effectively engaged the learner and maintained their interests. It has increased students' comprehension which resultantly becomes supportive in generating creative ideas. The creative ideas are the examples

of the construction of sentences on different patterns, the organisation of paragraphs in logical sequence and reaching at self-correction of the redundancies, poor grammatical structures, etc. The results of the studies conducted by Samson (2015), Rinkevich (2011) & Fruend and Holling (2008) were also in line with these findings i.e., the more students were engaged in the teaching and learning process, the more creative ideas will be brought out.

Preparing for action demands the students to think and apply different options to solve the problem or respond to the learning tasks. It provides the opportunity for the students to reflect on the multiple alternatives with reference to the requirements of the current situation and local realities. In this way, CPS Framework supports generating not only multiple options but also selecting the most workable one in the given situation. The teacher plays a vital role in encouraging students, boosting their energy and motivating them to participate in the classroom activities. The results of the studies conducted by Crossman (2013) & Tambunan (2019) agree to these results.

Understanding the challenge component of CPS framework increases high achievers' performance because the presented task has not demotivated them through being simple and easy. It provides the opportunity for unpacking the problems logically along with its multiple dimensions. Consequently, the learners become able to set the learning goals to find out solution, and to remain fixed to the learning targets. The new strategy of CPS Framework for teaching is found interesting for the students in engaging them in classroom activities. A little encouragement on the part of teacher may unfold the spring of creativity in students. It may enable them to present and share multiple aspects of the topic for in-depth understanding.

To summarize the findings and discussions of this study, while keeping in view of the current literature discussed above, it is said that blending CPS Framework in teaching English at grade six has positive and useful effects in promoting creative thinking skills among students as compared to teaching them with GTM. Hence, the findings of this study lead to the conclusion that teaching English through CPS Framework result in higher performance of students and promote creative thinking skills as compared to teaching by the traditional method.

Recommendations

On the basis of the quantitative results**,** reflection on lessons, the discussion and conclusion, following recommendations have been framed:

- It is suggested for the educators to create awareness in institutions regarding the use of CPS Framework in order to promote creative thinking skills among students.
- It is suggested for the teacher training programs to provide CPS training opportunities to pre-service teachers.
- Seminars and educational conference needs to be held to promote CPS Framework for teaching in order to enhance creative thinking skills among students.

Limitations of the Study

The researcher could not incorporate different types of content for checking the effectiveness of CPS Framework due to shortage of time and resources. Socio-economic back ground, linguistic competence, intelligence and other personality variables of the students were also not controlled. The number of students in the experimental and control groups were restricted due to staggered approach applied by the institutions during COVID-19.

Recommendations for Future Researches

The recommendations for future research are stated below.

- This study was limited to Federal Public Schools of Rawalpindi city. Further research can explore the government schools and private schools of Rawalpindi or any other city in Pakistan.
- This study was limited to English subjects of grade 6. Further research can be conducted on any other subjects of any other grade to check its effectiveness accordingly.
- The data were gathered through quantitative analysis; pretest and posttest. In future research, data can be collected by applying Mixed-method approach in order to disclose and clarify this CPS Framework in detail.

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