EFL Learners' Criticality, Creativity and its Relationship in Presentation Script Writing

Eunjeo Kim

Dankook University

[Abstract]

Even though the relationship between criticality and creativity is significant in language acquisition, it has not been widely investigated. This study intended to explore the relationship between EFL learners' criticality and creativity and its influences in the EFL environment. For the data analysis, EFL learners' presentation scripts were collected at a university. 71 EFL learners participated in the study, and their first and final scripts were scrutinized to decide if there were significant changes in *analyticity, receptivity, inquisitiveness, confidence, truth-seeking,* and *systematicity* for criticality, as well as *fluency, originality, elaboration, openers, closure, and creative strengths* for creativity. Based on the findings, several significant inferences were drawn. The participating EFL learners improved their criticality and creativity in their post-presentation scripts. Although the correlation coefficient of their creativity and criticality were high in r-value, the sub-scaled items for criticality and creativity were diverse. However, co-constructive activities for

criticality and creativity seem to be complementary. The pedagogical implications from the results were presented.

Key Words: criticality, creativity, analyticity, inquisitiveness, originality.

1. Introduction

This study explores the relationship between criticality and creativity and its influence on EFL learners' presentation script writing. Both critical and creative thinking skills are equally significant for language acquisition; learners' creative language use in critical thinking entails developing arguments, supportive and counter examples, and alternative ideas (Lau, 2011), while creativity may require critical thinking in analyzing, organizing, evaluating, and improving ideas. Their relationship appears to be intimate, particularly in L2 language acquisition.

Creative thinking (henceforth creativity) is the generation of new ideas within or across disciplines. It is related to transforming existing ideas into new configurations by discovering and developing new possibilities. Creativity includes analysis, evaluation, judgment, and the logical development of supporting or concluding ideas (Duff, Kurczek, Rubin, Cohen, & Tranel, 2013). In this process, critical thinking (henceforth criticality) may involve. While L2 language users identify concepts, express ideas in different ways, or manipulate language forms, they have to analyze and evaluate how a text may be designed and enunciate their own opinions based on facts and evidence. Thus, both creativity and criticality seem to be significantly involved in language acquisition.

The language learning process can be depicted as a holistic and comprehensive

interaction of creativity and criticality. Creative ideas are communicated in language with all our intelligences working together (Saebø, McCammon, & O'Farrell, 2007), by interacting, observing, examining, thinking, and organizing ideas. (Conklin, 2012). In those processes, language is an active player involving logical/analytical and intuitive/creative approaches (Synder, 1993). Both critical and creative processes require higher-order thinking skills, such as knowledge of facts, comprehension and application of concepts, and value judgments.

L2 acquisition needs to be considered in that sense. Even if both criticality and creativity are considered to be integrated into cognitive learning processes due to their linguistically close relationship (Akpur, 2020; Alghafri & Bin Ismail, 2014; Baker & Rudd, 2001; Birgili, 2015; Iakovos, 2011; Siburian, Corebima, Ibrohim, & Saptasari, 2019; Ulger, 2016), few studies have been conducted to investigate the relationship between EFL learners' criticality and creativity (Kabilan, 2000, 2013; Fard & Talebinezhad, 2018). To justify the necessity of criticality and creativity in the L2 language environment, the following section begins with an exploration of the theoretical framework.

2. Theoretical Framework

2.1 Criticality in EFL/ESL Environment

Diverse disciplines have elaborated various succinct definitions of criticality, some of which are applicable to language acquisition. Critical thinking can be construed as accurate and rational thinking ability, which comprises clarity, accuracy, precision, relevance, logic, and organization in a language (Elder & Paul, 2003; Fisher, 2001;

Halpern, 2002; Siegel, 1988). Subsequent research conducted in EFL environments, which has only intermittently analyzed EFL learners' critical ability (Davidson, 1998; Kim, 2017, 2018, 2020), posits that in terms of linguistic precision, the ability to think clearly, relevantly, systematically, and structurally supports language acquisition (Davidson, 1998; Kim, 2017, 2020). Critical thinking, encompassing logical reasoning and meta-cognitive strategies, may have an influence of L2 acquisition by helping EFL/ESL learners guess, analyze, demonstrate, expound.

Furthermore, critical thinking practices seem to support the construction and manipulation of logical arguments in L2. It allows EFL/ESL learners to consider whether an argument is authentic, congruous, and acceptable before combining arguments and ideas in novel ways (Lau, 2011; Smith, Ward & Finke, 1995), and utilizing sophisticated and stimulating thinking patterns (Feldman, 1997). For EFL/ESL learners, cautious, considered determination to accept, reject, or suspend judgments (Lipman, 1988; Moore & Parker, 1986) may be necessary. Critical thinking ability can facilitate EFL learners to explore ideas logically, support or revise opinions, and adapt to non-uniform circumstances.

However, rather than imposing definitions of critical thinking on EFL/ESL learners, it is necessary to allow them to experience critical thinking as a method of language acquisition and as procedural knowledge in EFL/ESL environments by dealing with various topics, writing them, and delivering a presentation in public. EFL/ESL learners should be armed with critical thinking skills as integrated transferable competencies for higher education (Andrews, 2010; Atkinson, 1997; Halpern, 2014). In particular, active utilization of critical thinking is necessary to assist EFL/ESL learners to improve critical thinking ability in L2, considering our current times that require increasingly complicated communication with computers and internet technology.

In addition, the environment of EFL/ESL acquisition has also rapidly transformed from a teacher-dominant system (i.e., procedures dependent on dominant teacher's roles) to an interactive cooperation-driven, project-based and learner-centered approach, influenced by internet technology development and its spin-off applications (Belz, 2002, 2003; Blake, 2000; Crystal, 2001). By implementing critical thinking practices, EFL/ESL learners may have a chance to put theory into practice (Garton, Copland, & Burns, 2011; Oxford, 2001; Richard-Amato, 1996). Therefore Kern (2000) and Ware & Kramsh (2005) accentuated that one primary goal of EFL/ESL education should be to help learners develop critical thinking ability in L2 beyond the reductive accounts of teachers through authentically applying critical thinking skills.

2.2. Creativity Involved with Criticality in EFL/ESL Environment

As to EFL/ESL learners' language acquisition, teachers should bring authentic and unpredictable communication use into EFL classrooms to enhance the capacity for creative language use. Authenticity and unpredictability require a multifaceted creative ability to perceive unusual correlations in new and unexpected environments (Croplery, 2001). However, methods of drawing out EFL/ESL learners' creativity have received little scholarly attention (Densky, 2015; Ellis, 2015; John & Richard, 2015), partly because an actual focus on creativity has not been easy to implement in EFL/ESL language classroom practice.

Although definitions of creativity are pervasive, Lau (2011) outlined the essence of creativity in three principles: (i) reorganizing previous ideas; (ii) choosing practical ideas; and (iii) exploring relations of ideas. In a similar vein, Facione (1990) and

Renaud and Murray (2008) suggested six traits of creativity: fluency (i.e., degree of fluent language uses), originality (i.e., the degree of uniqueness), elaboration (i.e., the amount of details in language uses), openers (i.e., the degree of psychological openness to diverse information), closures (i.e., the degree of rounding up the issues and reminding them) and creative strength (i.e., several creative abilities such as expressiveness, visualization, humor, and breaking boundaries and fantasy (Cramond, Matthews-Morgan, Bandalos, & Zuo, 2005; Kim & Zabelina, 2015).

These six essential traits of creativity apply to EFL/ESL environments. Fluency and elaboration have been considered particularly significant factors (Ellis, 2015) in EFL/ESL environments. However, adding to EFL/ESL students' lack of originality and creative strengths, openers and closures are frequently less appreciated in EFL/ESL language use (Densky, 2015; John & Richard, 2015). Recent IT (Internet Technology) developments and supportive teaching modalities may help transform linguistic knowledge learning into creative language use. Therefore, it seems feasible that EFL/ESL learners should learn to focus on creative language use, develop their fluency in both oral and written production, and eventually become successful language users (Burns & Richards, 2009; Vecino, 2007).

Over and above supportive IT development for language acquisition, another reason to promote creativity in EFL/ESL acquisition is that in the 21st century, EFL/ESL learners are confronting multifaceted digital information requiring full engagement and linguistic creativity, as well as the critical linguistic analysis of diverse concepts and arguments on the internet. In this digital world, EFL/ESL learners are required to be producers as well as active users of knowledge and information. To make it clear, this new territory for the current and future generation of EFL/ESL learners may require literal creativity and criticality.

However, attaining EFL/ESL learners' criticality and creativity is a great challenge.

Jeffery (2006) and Seeling (2012) suggest that implanting creative practices requiring criticality and critical methods requiring creativity is a starting point. Since creativity and criticality are complementary, creative approaches could enhance critical knowledge for inventiveness and imagination to establish new ideas and attitudes which support the creative process in language learning. It is suggested that while identifying creativity in language acquisition, we must also consider how more specific aspects in critical thinking are involved with creativity and vice versa. Similarly, Sternberg (2006) reaffirms that the parameters that characterize creativity require a critical learning environment. Therefore, EFL/ESL learners of the new generation should develop typical and long-lasting critical and creative thinking.

While previous studies have contributed to promoting theories and practices of criticality and creativity in isolation, the validity of integrating the two concepts in an EFL environment remains unclear. Since language acquisition of English as a lingua franca is highly recognized due to globalization and IT technology development (Canagarajah, 2006; Seidlhofer, 2004), integrated implementation of creativity and criticality may be a breakthrough in L2 learning. In this context, the current study proposes to spotlight the relationship between criticality and creativity and the influence of integrated implementation.

The following research questions were adduced to achieve the goal of the current study:

1. Is there any significant influence of learners' criticality and creativity after implementing criticality and creativity enhancing activities?

2. Is there any significant relationship between EFL learners' criticality and creativity?

3. Is there any significant relationship between sub-scaled items of EFL learners' criticality and creativity?

3. Method

3.1 Design

This study adopted a quantitative approach to investigate the relationship between EFL learners' criticality and creativity and its influence on their written work (Scripts for delivering presentations in public) before and after 12 sessions of implementation practice at a university, located in Gyeonggi-do. The creative and critical activities included a series of activities such as brain-storming for written presentation scripts, writing outlines of presentation scripts, writing scripts, and classmates' feedback after watching three classmates' presentation video clips, which were repeated six (6) times, including mid-term exam and a final exam during 12 sessions. Presentation time was 2-3 minutes for the mid-term exam and 3-5 minutes for the final exam.

After 15 sessions, their works (the first and final brainstorming, outlines, scripts, and classmates' feedbacks of other students' presentations) were collected to rate their creativity and criticality. Learners submitted their work through E-mail within 5 hours after they received designated topics via SNS. On the next day, they were required to write feedbacks about the presentations for three classmates after watching their presentation video clips uploaded on www.cafe.daum.net/practical english7. In particular, classmates' written feedback focused on critical enhancing practices.

The topics for presentations, adopted from a textbook, present yourself 1 (Gershon, 2015), are shown in Table 1.

Table 1 Presentation Topics for mid-term and final exams

No.	Topic	Time	
1	A good friend	2-3 min	One of the topics were chosen for mid-term exam
2	A favorite place	2-3 min	
3	A prized possession	2-3 min	
4	A memorable experience	3-5 min	One of the topics were chosen for final exam
5	Instruction of how to do or make	3-5 min	
6	A favorite movie	3-5 min	

The topics were very open, so learners were allowed to choose more specific topics within the given boundary of the themes. In this study, the first and final works were chosen to be rated for criticality and creativity.

Focused activities to enhance creativity and criticality were provided to help learners extract information on explicit topics by referring to learners' experience, information from the internet, and presentation examples. Class instructions focused on fostering learners' critical and creative thinking ability as a learner-oriented strategy to take distinct cogitation on individual learning experiences. Through the activities of drawing brainstorming maps, and offering feedback for their classmates, learners were encouraged to develop more divergent and profound arguments and opinions to develop critical and creative thinking (Andrews and Ridenour, 2006). Therefore, the data collection methods endorsed in quantitative study consisted of pre- and post- scores of presentation scripts and the related activities.

3.2 Participants and Setting

A total of 71 learners (including 33 males and 38 females) of mixed English levels were chosen as two groups, an experimental group A (n = 35) and a control group

B (n = 36) from presentation classes of a compulsory English university course, mainly for listening and speaking. Their age ranged from 19 to 22, majoring in various subject in Business administration, Korean language, Engineering, History, and Food Science & Nutrition. The instructor of the study has 15 years of EFL teaching and 11 years of research experience.

The learners of both EG (Experimental Group) and CG (Control Group) groups attended 15 sessions of classes, including introductory course, mid-term exam, and final-term exam. They were required to write presentation scripts and classmate feedback. For the EG group, this study adopted the first and final scripts and accretional activities such as brain-storming, outline writings, and classmates' feedback to compare critical thinking ability and creativity before and after implementing criticality and creativity activities. The presentation scripts were collected only from learners of both EG and CG groups who agreed to participate in this experimental study.

Participants in EG were asked to create brain-storming maps as the best visualization tool to reflect divergent and creative ideas, and to apply their critical thinking ability in organizing and constructing topic ideas and supportive details enhancing critical thinking (Yu, Horan, Mamas & Weisshaar, 2004). On the other hand, CG was asked to do the activities suggested by the textbook, present yourself 1 (Gershon, 2015), which are shown in Table 1.

3.3 Data Collection and Analysis

The major data analyzed in the study were scores (grades) for creativity and criticality based on two (2) presentation scripts (first and final scripts), brainstorming, script outlines and classmates' first and final feedback, since the first and final works

were considered as pre-implementation and post-implementation.

To assess an individual's level of criticality, the features of ideal critical thinking were considered according to sub-factors, such as *Analyticity, Receptivity, Inquisitiveness, Confidence, Truth-seeking*, and *Systematicity* (Facione, Sánchez, Facione, & Gainen, 1995), revised from the California Critical Thinking Disposition Inventory (CCTDI)[1]. In terms of creativity, the most frequently used method, the Torrance Test of Creative Thinking (TTCT), was adopted. The sub-scale of creativity includes a variety of creative thinking sub-dimensions such as *Fluency, Originality, Elaboration, Openers, Closures* and *Creative strength* (Lemon, 2011).

There were two raters: a female rater having 15 years of education experience and a male rater having 16 years of education experience. For the rating, they followed writing presentation script rubrics. A 5-point Likert scale from 1 point to 5 points for 'Very poor,' 'Poor,' 'Fair,' 'Good,' and 'Excellent' was used for criticality and creativity.

Their rating results were computerized to obtain reliability and validity. There was an adjacent agreement in terms of percentages ranging from 85% to 97% and Cronbach alpha value of creativity (.87) and criticality (.88) (see in Table 2), which are considered as the acceptable reliability value since the alpha is between 7.0 and .99.

Table 2 Reliability and Separation Index

Measurement	Pearson		Items		Cronbach Alph ( )
	Reliability	Separation Index	Reliability	Separation Index	
Creativity	.81	2.25	.95	4.38	.87
Criticality	.83	.2.68	.91	3.21	.88

Their first and last presentation scripts were compared in t-test, ANOVA to explore the differences before and after the critical and creative implementation. Pearson correlation coefficient was analyzed to discover the connection between EFL learners' critical thinking and creativity.

4. Results

For the first research question, the researcher conducted a series of appropriate statistical procedures to compare the first and final scores of presentation scripts. Descriptive statistic such as mean, standard deviation (SD), p, and g was obtained and is shown in Table 3.

Table 3 Descriptive Statistics of the Scores of Criticality and Creativity of EG

Variants	Pre-Score		Post-Score		Analysis of Variance (one-way ANOVA) Pre- and Post- Scores (n= 35)		
	M	SD	M	SD	F	p	g
Criticality	16.73	3.20	19.18	2.95	7.86	0.0021	0.81
Creativity	12.44	3.12	13.47	3.90	5.84	0.0673	0.57

As may be shown in Table 3, after the implementation practices for enhancing criticality and creativity, EFL learners in EG improved post-scores for criticality ($p = 0.0021$) and creativity ($p = 0.0673$) to the significant level $p < 0.05$. Measuring effect sizes with Hedges' g showed bias in results of notable impact on criticality (Hedges' $g = 0.81$) and creativity (Hedges' $g = 0.57$) upwards. According to Cohen's standards

(1988), when Hedges' g is 0.5, it is a moderate effect, and more than 0.8 is a large effect.

Mean scores, standard deviation, F, p-values, and Hedges' g-values of the experimental group (EG) and control group (CG) obtained by ANOVA are presented in comparison in Table 4.

Table 4 Descriptive Statistics of Pre‐ and Post Scores of EG and CG

| | Experimental Group - Control Group (N = 71) | | | | | |
| | ANOVA Pre-Score | | | ANOVA Post-Score | | |
	F	p	g	F	p	g
Criticality	0.28	0.7566	0.16	4.27	0.0179	0.51
Creativity	0.57	0.5682	0.14	3.83	0.0265	0.57

Descriptive statistics of ANOVA revealed that both criticality and creativity indicated significantly different between EG and CG at the level of significance ($P < 0.05$). After implementation of criticality and creativity, p-value of criticality and creativity indicated that there are significant differences at $p = 0.0179$ and $p = 0.0265$ respectively, with notable magnitudes of Hedge' $g = 0.51$ for criticality and 0.57 for creativity, showing a medium level of the effect size between CG and EG, despite a large effect size in the comparison between pre- and post- score.

For the second research question, Pearson's Correlation Coefficient of post-test was computed to determine the correlation between EFL learners' creativity and criticality. The analysis of the correlation is presented in Table 5.

Table 5 Correlations Between EFL learners' Criticality and Creativity

Model	N	Correlation Coefficient (r)	Sig. (2 tailed)	Strength of Correlation		
Criticality / Creativity	71	.23**	.ooo	Low*	Medium	High

**p 〈 .01, * r = .00 / .30

There is a significant positive correlation between criticality and creativity scores (*r* = .23, *p* < .01). This correlation demonstrates that criticality positively correlates creativity in a low level of strength. The correlation coefficient shows a positive correlation in linear regression models, which is considered as a positive value between .00 and 1.00.

For the third research question, the correlations between the sub-factors of creativity and criticality scores were also computed. The results indicated significant positive and low-level correlations of sub-factors between EFL learners' criticality and creativity presented in Table 6.

Table 6 Sub-factors Correlations Between Criticality and Creativity

Measurement	Fluency	Originality	Openers	Elaboration	Closure	Strengths
Analyticity	.17	.06	-.02	.26***	.36**	.35**
Receptivity	0.5	.03	.04	.18	-.06	.16*
Inquisitiveness	.12	.06	-.01	.14	.15	.18*
Confidence	.08	.01	.04	.13	.18	.07
Truth-Seeking	.39**	.05	-.05	.19*	.14	.28**
Systematicity	.09	-.04	-.08	.33**	.06	.02

*p 〈 .05, **P 〈 .01

As shown in Table 6, sub-factors of the correlation between EFL learners' creativity and criticality were examined using Pearson's Correlation Coefficient (r).

Relationships between *Analyticity* and *Elaboration* (r = .26***, p < .01), *Creative Closure* (r = .36**, p < .01), *Creative Strength* (r = .35**, p < .01) of creativity respectively generates very positive results. The other relationships between *Receptivity* and *Creative Strength* (r = .16*, p < .05), *Inquisitiveness* and *Creative Strengths* (r = .18*, p < .05), *Truth-seeking with Fluency* (r = .39**, p < .01), *Elaboration* (r= .19*, p < .05) and *Creative Strength* (r = .28**, p < .01) was found to be positive. Also very positive relationships between *Systematicity* and *Elaboration* (*r* = .33**, *p* < .01) was observed. On the other hand, relationships between *Openers* and *Analyticity* (r = -.02, *p* > .05), *Inquisitiveness* (r = -.01, *p* > .05), *Truth-seeking* (r = -.05, *p* > .05) and *Systematicity* (r = -.08, *p* > .05) are negative, in addition to *Receptivity* and *Closure* (r = -.06, *p* > .05), and *Systmaticity* and *Originalit*y (r = -.04, *p* > .05).

5. Summary and Discussion

The current study explored the influence of implementing integrated creativity and criticality and the possible relationships between EFL learners' criticality and creativity. Based on the appropriate data analyses performed, the researcher detected significant changes before and after the program. In addition, the relationship between EFL learners' creativity and criticality was positive even though the relationship between some of the sub-factors was more positive than some others.

One possible way of comprehending the results for the first research question is that intensive learner-centered activities had positive influences on learners' criticality and creativity during L2 learning, which learners in the CG did not have. As Lau (2011) and Smith, Ward, and Finke (1995) believe, more activities for logical,

authentic, congruous argument improve the higher order critical thinking skills, and those activities are beneficial in EFL classes.

Another possible meaning of the result is that the authentic situations in which learners are expected to deliver a presentation offer EFL learners cautious and considerate linguistic decision-making opportunities. EFL learners in the EG were in an environment that permitted them to accept, reject, or suspect judgments. As such, there were some differences in terms of instructions and activities. Therefore, a somewhat different environment could have affected EFL learners' outcomes in criticality and creativity.

As argued above, the prearrangement of criticality and creativity training is necessary to prepare EFL learners for creative and critical L2 use. This study revealed EFL learners' criticality and creativity are strongly influenced by integrated learner-centered activities focusing on enhancing criticality and creativity. While the relationship between EFL learners' creativity and criticality is very positive, some sub-factors were not necessarily or instantly positive in this study. In detailed factors of criticality and creativity, some of sub-factors demonstrated positive correlations, which seems to imply that there are similar thinking structures or complementary thinking patterns in criticality and creativity. For instance, some kind of thinking structure or pattern in analyticity seems to be related to elaboration, creative closure, and creative strength.

It is debatable whether one factor of creativity or criticality has an intimate relationship with only one other corresponding factor of creativity or criticality. However, certain types of approaches to knowledge and experience may have more influence on enhancing creativity and criticality, depending on the practical value of creativity and criticality. Accepting the differences between creativity and criticality, a complementary relationship between criticality and creativity seems to be

reasonable, particularly in an L2 learning environment. In particular, L2 learning requires transforming the learning process and co-constructing linguistic knowledge (Davidson, 1998; Kim 2018, 2020) by encouraging a learner-driven environment to nurture learners' creativity and criticality according to students' cautious considerations (Lipman, 1988; Moore & Parker, 1986).

The pedagogical implication of the study is to fill the gap of research on the relationship between L2 learners' criticality and creativity, bringing the research process into an authentic classroom. Furthermore, it suggests that this integrated and dynamic supporting enrichment with the appreciation of criticality, creativity its relationship may influence EFL learners depending on the integration of them into the curriculum.

The limitation of the study is to focus on quantitative analysis, not qualitative analysis. Further qualitative research from the identical research in the future may extend the present research, focusing on the understanding and explanation of the dynamics of criticality and creativity. In addition, it is possible that the results could be more implicative if the experiment groups could have been divided according to their English proficiency.

It is hoped that future studies on EFL learners' criticality and creativity will further clarify effective approaches to enhance criticality and creativity, fill the gap between theory and practice, and enhance relevant methods in L2 acquisition.

Notes

1) The CCTDI measures the dispositional aspects of critical thinking to engage problems and make decisions using critical thinking, based on the APA Delphi Report. The exemplars can be obtained from https://www.insightassessment.com/. The scales and sub-scales were revised to measure the critical thinking disposition inventory. The scale of sub-factors is presented in Appendix I.

Works Cited

Akpur, U. "Critical, Reflective, Creative Thinking and Their Reflections on Academic Achievement Psychology." *Thinking Skills and Creativity*, vol. 37, 2020. doi:org/10.1016/j.tsc.2020.100683

Alghafri, A.S., and H.N. Bin Ismail. "The Effects of Integrating Creative and Critical Thinking on Schools Students' Thinking." *International Journal of Social Science and Humanity,* vol. 4, no. 6, 2014, pp. 518-25. doi:10.7763/ IJSSH.2014. V4.410

Andrews, R. *Argumentation in Higher Education: Improving Practice through Theory and Research.* Routledge, 2010. https://doi.org/10.1007/ s10503-009-9176-5

Andrews, M.L., and C.S. Ridenour. "Gender in Schools: a Qualitative Study of Students in Educational Administration." *The Journal of Educational Research*, vol. 100, no. 1, 2006, pp. 35–43.

Atkinson, D.A. "Critical Approach to Critical Thinking in TESOL." *TESOL Quarterly*, vol. 31, no. 1, 1997, pp. 71-94. https://doi.org/10.2307/3587975

Baker, M., and R. Rudd. "Relationships between Critical and Creative Thinking." *Journal of Southern Agricultural Education Research,* vol. 51, no. 1, 2001, pp. 173-88.

Belz, J.A. "Social Dimensions of Telecollaborative Foreign Language Study." *The Language Learning & Technology*, vol. 6, 2002, pp. 60–81.

Belz, J.A. "Linguistic Perspectives on the Development of Intercultural Competence in Telecollaboration." *Language Learning & Technology*, vol. 7, no. 2, 2003, pp. 68–99.

Birgili, B. "Creative and Critical Thinking Skills in Problem-based Learning Environments." *Journal of Gifted Education and Creativity*, vol. 2, no. 2,

2015, pp. 71-80. doi:10.18200/JGEDC.2015214253

Blake, R. "Computer Mediated Communication: A Window on L2 Spanish Interlanguage." *Language Learning & Technology*, vol. 4, 2000, pp. 120⁻36.

Burns, A., and J.C. Richards. *The Cambridge Gguide to Second Language Teacher Education.* Cambridge UP, 2009.

Canagarajah, A.S. "Negotiating the Local in English as a Lingua Franca." *Annual Review of Applied Linguistics,* vol. 26, 2006, pp. 197-218.

Cohen, J. *Statistical Power Analysis for the Behavioral Sciences.* 2ⁿᵈ edition, Lawrence Erlbaumm Associates, 1988.

Conklin, W. *Higher-order Thinking Skills to Develop 21st Century Learners.* Shell Education, 2012.

Cramond, B., J. Matthews-Morgan, D. Bandalos, and L. Zuo. "A Report on the 40-year Follow-up of the Torrance Tests of Creative Thinking: Alive and Well in the New Millennium." *Gifted Child Quarterly*, vol. 49, 2005, pp. 283⁻91. doi:10.1177/001698620504900402

Cropley, A. *Creativity in Education-Learning.* Kogan Page, 2001.

Crystal, D. *Language and the Internet.* Cambridge UP, 2001.

Davidson, B.W. "A Case for Critical Thinking in the English Language Classroom." *TESOL Quarterly*, vol. 32, no. 1, 1998, pp. 119-23.

Densky, K. "Conceptualising Creativity and Culture in Language Teaching." *Creativity in Language Teaching*, edited by R.R. Jones, Routledge, 2015, pp. 49-76.

Duff, M.C., J. Kurczek, R. Rubin, N.J. Cohen, and D. Tranel. "Hippocampal Amnesia Disrupts Creative Thinking." *Hippocampus,* vol. 23, no. 12, 2013, pp. 1143-49.

Facione, P.A. *Critical Thinking: A Statement of Expert Consensus for Purposes of*

Educational Assessment and Instruction. The Delphi Report: Research Findings and Recommendations, American Psychological Association, 1990 (ERIC Document Reproduction Service No. ED315423). http://eric.ed.gov/ ?q=ED315423

Fard, Z.R., and M.R. Talebinezhad. "The Effect of Creative Teaching and Critical Teaching on Iranian EFL Learners' Writing Ability." *Journal of Applied Linguistics and Language Research*, vol. 5, no. 2, 2018, pp. 121-33.

Elder, L., and R. Paul. "Critical Thinking: Teaching Students How to Study and Learn" (Part IV). *Journal of Developmental Education,* vol. 27, no. 1, 2003, pp. 36-7.

Ellis, R. "Creativity and Language Learning." *Creativity in Language Teaching: Perspectives from Research and Practice*, edited by R.R. Jones, Routledge, 2015, pp. 32-48.

Facione, P.A., C.A. Sánchez, N.C. Facione, and J. Gainen. "The Disposition Toward Critical Thinking." *The Journal of General Education,* vol. 44, no. 1, 1995, pp. 1-25. http://www.jstor.org/stable/27797240

Fisher, A. *Critical thinking: An Introduction.* Cambridge UP, 2001.

Garton, S., F. Copland, and A. Burns. I*nvestigating Global Practices in Teaching English for Young Learners: Project Report.* British Council, 2011. http://www.teachingenglish.org.uk/sites/teacheng/files/B094%20FINAL%20 Aston%0University%20A4%20report_2column_V3.pdf

Gershon, S. *Present Yourself 1*, Cambridge UP, 2015.

Halpern, D.F. "Teaching for Critical Thinking: A Four-part Model to Enhance Thinking Skills. *The Teaching of Psychology: Essays in Honor of Wilbert J. McKeachie and Charles L. Brewer*, edited by S.F. Davis and W. Buskist, Lawrence Erlbaum Associates, 2002, pp. 91−105.

_____. *Thought and knowledge: An introduction to critical thinking*. Psychology Press, 2014.

Iakovos, T. "Critical and creative thinking in the English language classroom." *International Journal of Humanities and Social Science*, vol. 1, no. 8, 2011, pp. 82-8.

Jeffrey, B. "Creative teaching and learning: towards a common discourse and practice." *Cambridge Journal of Education*, vol. 36, no. 3, 2006, pp. 399–414.

Jones, R.H., and J.C. Richards. "Creativity and Language Teaching." *Creativity in Language Teaching: Perspectives from Research and Practice*, edited by R.H. Jones and J.C. Richards, Routledge, 2015, pp. 3-15.

Kabilan, M.K. "Creative and critical thinking in language classrooms." *The Internet TESL Journal*, vol. 6, no. 6, 2000. http://itselj.org/ Techniques/Kabilan-CriticalThinking.html.

_____. *Pedagogies for creative and critical in ELT*. August Publishing. 2013.

Kern, R. *Literacy and language teaching*. Oxford UP, 2000.

Kim, E. "Fostering Criticality in English Presentation Class for EFL Learners." *The Journal of Studies in Language*, vol. 33, no. 1, 2017, pp. 45-70. DOI : 10.18627/jslg.33.1.201705.45

_____. "Criticality: A Framework for Teaching English in EFL Context." 영어학연구, 24권1호, 2018a, 123-52쪽. DOI :10.17960/ell.2018.24.1.006

_____. "Perceptions of Criticality in Language Learning in EFL Context." 외국학연구, 43권, 2018b, 61-82쪽.

_____. "Rhetorical Analysis as Analytical Technique for Critical Thinking." 영미연구, 2020, 25-54쪽.

Kim, K. H., & Zabelina, D. Cultural bias in assessment: Can creativity assessment

help? *International Journal of Critical Psychology, 6*, (2015): 129–148.

Lau, J.Y.F. *An Introduction to Critical Thinking and Creativity: Think More, Think Better.* John Wiley & Sons, 2011.

Lemon, G. "Diverse perspectives of creativity testing: Controversial issues when used for inclusion into gifted programs." *Journal for the Education of the Gifted.* vol. 34, no. 5, 2011, pp. 742-72. Doi:10.1177/0162353211417221

Lipman, M. "Critical Thinking: What It Can Be?" *Educational Leadershpi*, vol. 46, no. 1, 1988, pp. 38-43.

Moore, B.N., and R. Parker. *Critical Thinking.* Mayfield Publishing Company, 1986.

Oxford, R. "Integrated skills in the ESL/EFL classroom." *ESL Magazine,* vol. 4, no. 1, 2001, pp. 18-20.

Renaud, R.D., and H.G. Murray. "A comparison of a subject-specific and a general measure of critical thinking." *Thinking Skills and Creativity*, vol. 3, 2008, pp. 85–93.

Richard-Amato, P. *Making it happen: Interaction in the second language classroom: From theory to practice.* Longman, 1996.

Saebø, A.B.,L. McCammon, and L. O'Farrell. "Creative teaching—Teaching creativity" [Special issue: Returning the gaze: Reclaiming the voice – Post-colonialism and its implications for drama and education]. *Caribbean Quarterly,* vol. 53, no. 1/2, 2007, pp. 205-15.

Seeling, T.G. *A crash course on Creativity*. 2012. http://www.youtube.com/watch?v=Dle_GvFIbqY

Seidlhofer, B. "Research perspectives on teaching English as a lingua franca." *Annual Review of Applied Linguistics,* vol. 24, 2004, pp. 209-39.

Siburian, J., A.D. Corebima, Ibrohim, and M. Saptasari. "The Correlation Between Cortical and Creative Thinking Skills on Cognitive Learning Results."

Eurasian Journal of Educational Research, vol. 81, 2019.

Siegel, H. *Educating reason: Rationality, critical thinking and education.* Routledge & Metheun, 1988.

Smith, S.M., T.B. Ward, and R.A. Finke. *The Creative Cognition Approach.* Bradford, 1995.

Sternberg, R.J. "The nature of Creativity." *Creativity Research Journal*, vol. 18, no. 1, 2006, pp. 87-98.

Synder, M. "Critical thinking: A foundation for consumer-focused care." *Journal of Continuing Education in Nursing*, vol. 24, no. 5, 1993, pp. 206-10. Doi: 10.3928/0022-0124-19930901-05

Ulger, K. "The relationship between creative thinking and critical thinking skills of students." Hacettepe Üniversitesi Eğitim Fakültesi Dergisi *H. U. Journal of Education,* vol. 31, no. 4, 2016, pp. 695-710. doi:10.16986/HUJE. 2016018493

Ware, P.D., and C. Kramsch. "Toward an intercultural stance: Teaching German and English through telecollaboration." *The Modern Language Journal,* vol. 89, 2005, pp. 190‒205.

Yu, G., R. Horan, M. Mamas, and B. Weisshaar. "Recovering Creativity: For Personla Evolution, Idustry, and Society." *Journal of Youth Studies,* vol. 7, no. 2, 2004, pp. 1-10.

Appendix

The Evaluating Rubrics for Criticality and Creativity

You may evaluate the learners' written works (brainstorming, outlines, and presentation scripts) from 1 point to 5 points for 'Very poor,' 'Poor,' 'Fair,' 'Good,' and 'Excellent' accordion to their criticality and creativity.

Criticality	
Analyticity	Ability to be cautious to potentially ambiguous situations, expecting possible result or consequence, and valuing the application of logical reason with appropriate evidence
Receptivity	Ability to be receptive, open-minded, and lenient of divergent views with sensitivity to ones' bias. Respect the rights of others to hold contrasting opinions.
Inquisitiveness	Ability to have intellectual curiosity, valuing being well-informed, wanting to now how things work, valuing learning
Confidence	the level of trust in one's own reasoning processes
Truth-Seeking	Ambition to seek the truth, tenacious about asking questions, honest, fair, and objective about pursuing truth even if the findings do not support their interest or biased opinions.
Systematicity	Ability to be organized, being focused, and being systematic in the contents
Creativity	
Fluency	Ability to generate more relevant examples and arguments
Originality	Ability to produce novel or unique contents
Openers	Ability to attract audience attention with qu orations or proverbs, rhetorical question, story or a mystery list, interesting facts or statistic
Elaboration	Ability to prodce new arguments or examples by adding factual examples or existing ideas
Closure	Ability to make effective closing statement such as a thought or comment about the future, a call to action, a recommendation or invitation, a statement about the topic's importance, a quotation or proverb, and requesting for others to share their own stories.
Strength	Ability to manage creative burst in brainstorming, outline writing, and organizing ideas in scripts

국문초록

EFL 학습자의 발표원고 쓰기에 있어서 창의성, 비평성 그리고 그 상관관계 연구

김언조

단독 / 단국대학교

언어습득에서 창의력과 비평성 간에 관계가 있음에도 불구하고 널리 탐구되지 않았다. 본 연구는 EFL 학습자의 비평성과 창의성의 관계와 EFL 환경에서의 영향력을 탐색하고자 의도되었다. 데이터 분석을 위해서 EFL 학습자의 발표원고를 한 대학에서 수집하였다. 71명의 EFL 학습자가 이 연구에 참석하였고 그들의 최초와 마지막 원고에서 비평성을 위해서 분석력, 수용력, 탐구력, 자신감, 진실추구, 체계성을 분석하고, 창의성을 위해서 유창성, 독창성, 정교성, 창의적 서두, 창의적 마감, 창의력에서 의미있는 변화가 있는지 분석하기 위해서 SPSS 21을 사용하여 상관율을 측정하였다. 결과에 근거하여 몇 가지 의미있는 추론이 가능했다. 참석한 EFL 학습자들은 사후 발표원고에서 비평성과 창의력이 더 발달하였다. R-value에서 창의력과 비평성의 상관관계가 높게 분석되었음에도, 창의력과 비평성의 하부 항목에서는 다양하게 나왔다. 그럼에도 불구하고 비평성과 창의력의 상호 건설적인 활동은 상보적인 것으로 보인다.

주제어 : 비평성, 창의력, 분석성, 탐구심, 독창성

이름: 김언조

소속: 단국대학교 교육대학원 영어교육 부교수

주소: 경기도 용인시 죽전로 152 단국대학교 (우)16890

이메일: wingit@hanmail.net