

The Effects of Emotional Intelligence and Writing Motivation on Experiential Writing Performance

: Focused on Third Graders in an Elementary School

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I. Introduction

Why cognitive psychology-based writing education is to be complemented? The reason why is that human writing is certain to be a process of cognitive processing and performance but it is neither plane nor simple like a computer. Humans are social beings having motivation, belief and emotion.¹ In a writing process, idea, experience and emotion of a writer have an effect on the creation, organization and expression of contents(Park, 1999: 3). Unlike a computer, human forms emotion and determines certain action while contacting with other objects. For instance, a communicative mode with an object in a situation that may generate delight differs from that of a situation otherwise. As mentioned by Vass(2007: 109), the cognitive model suggested by Flower and Hayes(1980) had no room for considering aspects of the affect. On a similar vein, it may be understood that there

1 Writing for friendship & emotional expression' in the content system of 2007 Amended Curriculum or 'Friendship · Emotional expression' in that of 2015 Amended Curriculum defined emotion as the goal to be represented through the communicative abilities. However, this study considers emotion as one of factors composing the communicative competency itself. The reason why is that emotion may be both an object for expression and a catalyst triggering a writing behavior.

are increasingly many studies exploring the role of the affect, one of human beings' own characteristics, on the writing performance.

In the writing performance, the affect was originally dealt with from the rhetoric of the ancient Greek. Aristotle defined the emotion as the psychological mechanism² influencing individual judgment and changing an action(Stenberg, 2011: 351-352). In the Greek rhetoric, emotion was dealt with as the one inseparable from reason. However, reason was regarded as the controllable agent to be educated but emotion was assumed as the quite subjective so neglected relatively compared with reason and could not be a main target for education.

Along with the recent development of the multiple intelligence theory and neuroscience research,³ emphasis is put on the importance of emotion in the higher thinking including writing(Shao, Yu, and Zi, 2013: 107-108). In particular, roles of Emotional Intelligence, or competence judging, regulating and using emotion, are being emphasized in the writing education. Emotional Intelligence gropes for a direction to integrate cognition and emotion for performance of a human positive action. Besides, inducing thinking acts including writing through evaluating and adjusting emotion of oneself and others, it influences both psychological factors like writing motivation and process and result of writing performance. Writing education intends to predict and guide positive writing performance of a student writer. Hence, information on effects of Emotional Intelligence and writing motivation on writing performance is useful when considering emotion of a student writer.

This study aims to identify whether and how much Emotional

2 The term 'emotion' originated from Latin 'emovere(making it move)'. Emotion refers to the psychological mechanism that makes human behave in certain manner.

3 Recent neuroscience research raises a question about the traditional modular perspective on the brain and shows that emotion-related nervous systems interact with a cognitive process on a wider basis(Vass, 2007: 108). The representative one in the neuroscience research is about amygdala known for its connection with the emotional control function.

Intelligence and writing motivation have an actual effect on experiential writing performance through conducting the comparative analysis about the effects of student emotional intelligence and writing motivation on writing performance. Hence, data on Emotional Intelligence, writing motivation and experiential writing performance were collected · analyzed for 122 students of an elementary school located at Gyeonggi-do. Research findings will be helpful for identifying whether and how many there is significance difference in student writing motivation and writing performance according to his Emotional Intelligence. So far, there are few studies about the effects of Emotional Intelligence on writing motivation or writing performance. Therefore, this study has significance in that it provides related information.

II. Theoretical Backgrounds

1. Writing & Emotion

Emotion is a series of episodic reactions induced by external and internal events(Scherer, 2000: 139). Emotion like delight, sorrow, fear, anger, acceptance and disgust is a temporary psychological state caused by certain triggering events. Writing performance happens by a communicative exigency situation.⁴ Accordingly, an exigency situation may be certain triggering event.

Certain triggering event causing emotion may be not only external factor like an exigency situation but internal factor. Fartoukh, Chanquoy & Piolat(2012: 405-406) analyzed the effects of emotion on

4 Schryer(1993: 95) who researched rhetoric genre theories defined the exigency situation as mere 'present' situation. It means that writer has to recognize a variable writing situation by changes of space-time and correction of a context and select a writing method. In a similar vein, Schryer defined a 'genre' dealt in genre-centered writing not as 'fixed noun but as 'verb' proceeding transformation.

a writing process for elementary school students in 4th and 5th grades and showed that working memory has connection with emotion in a writing process. For example, in the persuasive writing requiring to accept information of working memory rapidly and accurately, a writer is likely to get stressed and express negative emotion. On the contrary, in writing where his experience formed working memory like a diary, he is likely to suffer less stress and express less negative emotion compared with the persuasive writing. Such emotional triggering may have a continual and repetitive effect on the entire writing process and method of a writer, and emotion may influence writing performance.

Chandler(2007) examined what effect understanding of emotion as discourse has on writing education. He mentioned that discourse for writing performance is multi-discourse composed of individual and social experiences and maintained that it is needed to put importance on student emotion caused by a writing context. In case a writing situation corresponds to purpose and motivation of writing performance by a writer, a variety of feelings may be generated by a situation. Such emotion changes forms and contents of a composition. For instance, when one is writing for solving a problem of the natural destruction after observing it, if emotion of sadness, rage and hatred is generated, it may influence a writer who organizes forms and contents of writing.

Though writing is a high-order thinking act, emotion should be considered since there is part that may not be solved only by cognition. Criticizing a cognition-based writing model, Sharples(1999) mentioned that “writing has no firm and clear objective developed by a single solution mode and it is an open design process difficult to define an explicit step” and it shows a characteristic of writing performance that has to consider various aspects. Brand(1987: 439-440) pointed out a protocol method summarizing and overlooking human thinking has difficulty in describing completely a mental activity underlying writing and criticized the protocol method used by Flower

and Hayes for cognition-based writing model research. It means that human writing pursues “free associative thinking and implicational critique” and such difference of cognitive styles is the point where emotion integrated with cognition occurs.

Human thinking has a close relation with emotion (Neisser, 1967: 197). In particular, thinking occurred from exchange with an object is much influenced by emotion. Writing is a means of understanding and expression, and also of communication connecting writer and reader. It relates to the mention from the Greek rhetoric that function of emotion manifests itself most from pathos. Caswell (2011) studied emotion of teachers who evaluated writing. Teachers reading and understanding a composition failed in taking a neutral position since emotion and belief were intervened. Emotion should be controlled to use it in the high-order thinking like writing. Through such a process, a writer can produce appealing and effective expressions for readers, corresponding to situation and purpose of writing and readers can read and sympathize with a piece of writing whether they are neutral or objective under their situation.

As for writing, there is research about the effects of emotion on efficiency of writing. Driscoll & Powell (2016) examined the effects of emotion on the development of writing for 13 undergraduates. This study identified that it is emotion dispositions⁵ that influence the development of student writing and asserted that the way promoting or hindering student writing learning may be demonstrated by research on emotion dispositions. Emotion dispositions refer not to certain micro emotion but to a mode where emotion is managed in a writing situation. For instance, it means that one communicates one's opin-

5 Driscoll & Powell (2016) divided emotion into the emotion state, emotion trait, and emotion dispositions to examine emotional aspects influencing the development of writing. The emotion state refers to a singular and temporary emotion state according to a situation and the emotion trait refers to a continual and stable emotion state according to the flow of time. The emotion dispositions mean management of emotion according to a situation rather than certain particular emotion.

ions, checks and adjusts one's and others' emotion to solve a problem in certain writing situation. Such emotion dispositions may enhance efficiency of writing by integrating with cognition. The reason why is that a direction of writing ideas and behaviors may be controlled through effective management of emotion.

This study examines the relationship between writing and emotion discussed above. Firstly, writing and emotion are reactions to certain triggering events. Writing is a reaction to an exigency situation caused by a communicative situation. Such an exigency situation generates certain emotion of a writer. Emotion generated as such has an effect on writing goal setting of a writer and his writing method, process and result. Secondly, emotion induces changes of cognition and behavior. When writing, emotion of a writer has a close relation with formation of thoughts. In particular, like emotion dispositions, emotional aspects controlling and checking emotion influence and are influenced by cognitive acts and form a meaning according to an exigency situation of writing. Thirdly, controlling emotion is a useful function for writing performance. Emotion may have an effect on a direction of writing performance. It may influence a triggering factor of a psychological behavior like writing motivation and engage in the entire writing performance. In case emotion is controlled and managed properly, it may be used as a valuable function for writing performance and education.

2. Writing Education & Emotional Intelligence

Writing education aims to predict and guide student writer's successful writing performance conditions. Hence, both positive and negative elements influencing writing performance should be controlled. Emotion is difficult to be observed and has subjective characteristics. Therefore, emotional aspects to be used for writing education should be derived. Checking and managing emotion is more effective for writing education than emotion itself caused by an exigency situa-

tion like emotion dispositions mentioned above. The representative related argument is Emotional Intelligence.

The representative Emotional Intelligence researcher Goleman(1995) defined Emotional Intelligence as “learned abilities including individual impulse control, individual motivation and capability within social relations”. Moon(2011) defined it as “emotional abilities manifesting the rational thinking competency or suppressing and limiting such competency”, and Salovey & Mayers(1990:189) defined it as “abilities using emotional information for checking one’s and others’ emotion and feeling, discriminating difference between them, thinking and acting as a subelement of social intelligence.” In conclusion, Emotional Intelligence may be defined as the abilities helpful for performing efficient behaviors by checking and controlling emotion so promoting individual thinking competency. Triggering an efficient action through Emotional Intelligence may be a motivation mechanism like writing motivation. The reason why is that it may influence motivation for action through checking one’s and others’ emotion and a writing situation. Emotional Intelligence may also lead to integration of cognition with emotion for positive writing performance. The term Emotional Intelligence itself integrates emotion with intelligence. It means the cognitive competency that can deal with emotion. It is the competency to recognize correctly one’s and others’ emotion and control emotion triggering high-order thinking and be aware of emotion in a writing situation.

Shao et al(2013: 110) mentioned about the need of Emotional Intelligence in writing education using two types of writing suggested by Bereitier and Scardamalia(1987). In the knowledge telling model accessible easily in a familiar linguistic environment, cognitive efforts of a writer may not be activated and learners have difficulty in demonstrating Emotional Intelligence. However, in the knowledge transforming model where new intellectual challenges are required and problems individual is facing should be solved from various approaches, Emotional Intelligence of a learner can perform a variety

of roles and a student with high level Emotional Intelligence is likely to be a stylist. When facing a writing situation requiring high-order thinking abilities like the knowledge transforming model, a writer collects significant information based on his existing knowledge, interest, aim, disposition, belief and attitude. Besides, writing motivation comes to be established for writing performance. Writing is a communicative action so empathic and social aspects are emphasized. Accordingly, a writer comes to be influenced by Emotional Intelligence directly · indirectly in a writing process.

As writing has a bidirectional meaning from aspects of understanding and expression, writer and reader, Emotional Intelligence and writing have a similar relation. Emotional Intelligence may be considered for positive writing performance of students but writing may contribute to improving Emotional Intelligence. Wing, Schutte & Byrne(2006: 1292-1293) conducted the research for improving Emotional Intelligence through writing promoting reflection on emotional control in a relation with individual significant experience. This study identified that Emotional Intelligence may be integrated closely with other functions including writing performance and it may be controlled and improved through writing.

If so, how can Emotional Intelligence influencing writing performance of a writer be measured? The way emotional intelligence may be measured can be divided into self-report, physiological measurement and behavioral observation. Salovey and Mayer(1990) devised a measurement model composed of 10 elements, 3 domains of perception and expression of emotion, control of emotion and use of emotion, and Salovey and Sluyter(1997) created a measurement model composed of 16 elements, 4 domains of perception and expression of emotion, thinking facilitation of emotion, use of emotional knowledge and reflective control of emotion. Moon(1997) established 5 sub-domains adding empathy to those of precedent studies. Such measurement models are used as a self-report instrument. This study measures Emotional Intelligence using self-report. The measurement

model is based on the development model by Moon(1997) considering a Korean situation.

III. Research Methodologies

1. Participants

In order to examine the effects of student Emotional Intelligence and writing motivation on writing performance, data were collected by random sampling at B elementary school located at Gyeonggi-do. Research was done for 6 classes in the third grade. As shown from the writing content system table of 2015 Amended Korean Language Curriculum, the third grade is the step for learning ‘writing for exchanging opinions and feelings’ with others escaping from ‘writing describing matters around and expressing one’s experience’ in 1st~2nd grades. The third grade is regarded as the one needing to consider Emotional Intelligence in earnest since communicative writing taking account of paragraph writing and readers begins. <Table 1> shows research participants.

Table 1. Scale & Distribution of Participants

School	Gender		Total
	M	F	
B Elementary school(6 classes)	58	64	122

2. Measures

Measures for student Emotional Intelligence, writing motivation and writing performance are needed in this study. Firstly, as for the measure in order to measure Emotional Intelligence of elementary school students, this study used the Emotional Intelligence test for adolescents developed by Moon(1999) based on the amended Emo-

tional Intelligence model by Mayer and Salovey(1997) and adapted by Lee(2012) adequate for the cognitive level of elementary school students. This measure is composed of 5 sub-measures including perception and expression of emotion, empathy, thinking facilitation of emotion, use of emotion and control of emotion⁶ and has the total 40 items, 8 by sub-measure. This study calculated Cronbach's alpha for the test to identify reliability and validity of the Emotional Intelligence measure. Cronbach's alpha of the sub-measure is .814 at a moderate level for conducting the test.

To measure student writing motivation, the writing motivation measure developed by Park(2006) was used. This measure has .895 of Cronbach's alpha and consists of 4 sub-measures including collaborative interaction, writing efficacy, competitive effort and challenge. Also it has 19 sub-items by sub-measure. <Table 2> shows the number of items contained in Emotional Intelligence and writing motivation sub-measures.

A writing task for student writing performance was 'writing to express things one experienced to one's friends'. The educational aim(4) in 2009 Revised Curriculum for Elementary School is 'Express one's experience and idea in various manners and cultivate an attitude to empathize and cooperate with others while considering them'. The achievement standard (5) for third~fourth graders in an elementary school is 'Write an essay to express oneself while considering readers.' Besides, the achievement standard [4 Korean 03-04] for third~fourth graders in an elementary school from 2015 Revised Curriculum is

6 Measures of perception and expression of emotion may be divided into two. Perception of emotion checks if one can notice one's and others' emotion. Expression has something to do with the degree one can express one's emotion. Measure of empathy is on understanding others' emotion. It checks whether one can empathize with others' emotion or not. Measure of thinking facilitation by emotion checks if one can use emotion for thinking actions including problem-solving. Use of emotional knowledge measure identifies the degree one can use emotion for tasking or problem-solving and the degree it can contribute to human relations. Finally, control of emotion measure checks if one can control emotion properly for achieving one's aim.

Table 2. The Number of Items by Emotional Intelligence & Writing Motivation Sub-Measures

	Sub-Measure	Item No.	Number of Items
EI	Perception · Expression of Emotion	1, 6, 11, 16, 21, 26, 31, 36	8
	Empathy	2, 7, 12, 17, 22, 27, 32, 37	8
	Thinking Facilitation	3, 8, 13, 18, 23, 28, 33, 38	8
	Use of Emotional Knowledge	4, 9, 14, 19, 24, 29, 34, 39	8
	Control of Emotion	5, 10, 15, 20, 25, 30, 35, 40	8
Total			40
Writing Motivation	Collaborative Interaction	1, 5, 9, 12, 15	5
	Writing Efficacy	2, 6, 10, 13, 16, 18	6
	Effort	3, 7, 11, 14, 17, 19	6
	Challenge	4, 8	2
Total			19

‘Write an essay to express oneself while considering readers’. Writing for expressing one’s emotion and feeling to others by third~fourth graders in an elementary school aims to cultivate their writing abilities for friendship and emotional expression. In this study, a task was set as the one adequate for student writers to express their emotion and feeling to others around them. Furthermore, it is the task connected to the Unit 7, 1st semester of the third grade ‘Recalling things you know’.

To measure student writing performance, the writing competency measure developed by Spandel & Cullham(1996) was adapted. It was composed of 3 sub-measures including content, organization and expression with perfect scores of 15, 5 by sub-measure.

3. Research Procedure

In this study, data collection was done from 4th, Oct. to 4th, Nov., 2016. Emotional Intelligence, writing motivation and writing performance data were collected for 122 elementary school students. Data

collection was conducted under cooperation by classroom teachers and consent was acquired for subjects after explaining the intent and purpose of the research to them. The researcher and 6 classroom teachers held a council to help students understand test items and conduct a smooth training before the research. Items difficult for third graders to understand were checked in advance through consultation and they were explained and answered frequently by a classroom teacher before the test. Emotional Intelligence and writing motivation data were collected at the same time by class and firstly data for 138 students were collected but 122 students were tested and analyzed except ones who took the test insincerely and dropped any of three tests.

experiential Writing performance students' essays collected from students were evaluated by 3 incumbent elementary school teachers experienced for more than 5 years. The evaluation was conducted from 9th to 11th, Nov., 2016. Inter-rater reliability was .894 of Cronbach α .

4. Analytic Instruments

In order to analyze the effects of student Emotional Intelligence and writing motivation on experiential writing performance, Firstly, correlation analysis was conducted to identify what relation Emotional Intelligence has to writing motivation and writing performance. Besides, simple and multiple regressions were implemented to identify the effects of Emotional Intelligence on writing motivation and writing performance and the effects of Emotional Intelligence and writing motivation on writing performance.

IV. Results & Discussion

1. Descriptive Statistics of Emotional Intelligence, Writing Motivation, Writing Performance

This study identified descriptive statistics before examining the effects of student Emotional Intelligence on writing motivation and writing performance. <Table 3> shows descriptive statistics of Emotional Intelligence, writing motivation and writing performance.

As a result of the descriptive statistics in <Table 3>, when comparing the mean, girl students were higher for Emotional Intelligence as 140.57 than boy students as 135.62. Girl students were higher for writing motivation as 69.73 than boy students as 66.28. Girl students were also higher for writing competency as 22.51 than boy students as 20.29 so girl students were higher than boy students for Emotional Intelligence, writing motivation and writing competency. These results correspond to those by Park · Ka(2009) that verified sex difference in writing motivation and writing performance for middle school students.

Table 3. Descriptive Statistics of Emotional Intelligence, Writing Motivation, Writing Performance

		Number of cases	Mean	SD
EI	M	58	135.62	18.35
	F	64	140.57	19.22
	Total	122	138.22	18.89
Writing Motivation	M	58	66.28	14.28
	F	64	69.73	14.57
	Total	122	68.09	14.47
Writing Competency	M	58	20.29	4.13
	F	64	22.51	3.38
	Total	122	21.46	3.91

2. Correlations for Emotional Intelligence, Writing Motivation, Writing Performance

1) Correlations between Emotional Intelligence and Writing Motivation

Correlation analysis was conducted to identify correlations between Emotional Intelligence and writing motivation. <Table 4> reveals correlations between Emotional Intelligence and writing motivation sub-domains.

<Table 4> shows a relatively higher positive correlation between student Emotional Intelligence and writing motivation. A sub-variable of Emotional Intelligence, thinking facilitation showed the highest correlation of .732 with writing motivation, and positive correlations with perception and expression of emotion, empathy, use of emotional knowledge and control of emotion in order. Control of emotion showed a lower correlation. As for sub-variables of Emotional Intelligence, perception and expression of emotion showed a relatively higher positive correlation of .642 with writing motivation, and correlation with writing efficiency, collaborative interaction, effort and challenge in order. Perception and expression of emotion showed

Table 4. Correlations between Emotional Intelligence & Writing Motivation(Number of cases=122)

Variable	Writing Motivation	Collaborative Interaction	Writing Efficiency	Effort	Challenge
EI	.699(**)	.579(**)	.593(**)	.631(**)	.587(**)
Perception & Expression of Emotion	.642(**)	.542(**)	.595(**)	.530(**)	.507(**)
Empathy	.616(**)	.516(**)	.515(**)	.560(**)	.515(**)
Thinking Facilitation	.732(**)	.589(**)	.598(**)	.714(**)	.588(**)
Use of Emotional Knowledge	.414(**)	.372(**)	.277(**)	.375(**)	.479(**)
Control of Emotion	.256(**)	.185(*)	.297(**)	.209(*)	.121

* $p < .05$, ** $p < .01$

correlations of .507~.595 with sub-variables of writing motivation. Empathy showed a relatively higher positive correlation of .616 with writing motivation, and correlations with effort, collaborative interaction, writing efficiency and challenge in order. Empathy formed correlations of .515~.560 with sub-variables of writing motivation. Thinking facilitation showed a higher positive correlation of .732 with writing motivation, and correlations with effort, writing efficiency, collaborative interaction and challenge in order. Thinking facilitation revealed correlations of .588~.714 with sub-variables of writing motivation. Use of emotional knowledge showed a positive correlation of .414 with writing motivation, and correlations with challenge, effort, collaborative interaction and writing efficiency in order. Use of emotional knowledge revealed correlations of .277~.479 with sub-variables of writing motivation. Control of emotion showed a relatively lower correlation of .256 with writing motivation, and correlations with writing efficiency, effort, collaborative interaction and challenge in order. Control of emotion formed correlations of .121~.297 with sub-variables of writing motivation but challenge was not statistically significant.

2) Correlations between Emotional Intelligence and Writing Performance

Correlation analysis was conducted to identify correlations between Emotional Intelligence and writing performance. <Table 5> reveals correlations between Emotional Intelligence and writing performance sub-domains.

<Table 5> shows a relatively lower correlation of .250 between student Emotional Intelligence and writing performance. As for sub-variables of emotional intelligence, perception and expression of emotion showed the highest correlation of .276, and positive correlations with empathy, thinking facilitation, use of emotional knowledge and control of emotion in order. Use of emotional knowledge

Table 5. Correlations between Emotional Intelligence & Writing Performance (Number of cases=122)

Variable	Writing Performance	Content	Organization	Expression
EI	.250(**)	.273(**)	.183(*)	.161
Perception & Expression of Emotion	.276(**)	.309(**)	.195(*)	.174
Empathy	.229(*)	.260(**)	.124	.170
Thinking Facilitation	.224(*)	.307(**)	.132	.084
Use of Emotional Knowledge	.114	.089	.109	.102
Control of Emotion	.128	.093	.152	.100

* $p < .05$, ** $p < .01$

and control of emotion were not statistically significant. As for sub-variables of Emotional Intelligence, perception and expression of emotion showed a relatively lower positive correlation of .276 with writing performance, and correlations with content, organization and expression in order. Perception and expression of emotion showed correlations of .174~.309 with sub-variables of writing performance but variable of expression was not statistically significant. Empathy showed a lower positive correlation of .229 with writing performance, correlations with content, expression and organization in order. Empathy formed correlations of .124~.260 with sub-variables of writing performance but organization and expression were not statistically significant. Thinking facilitation showed a lower positive correlation of .224 with writing performance, and correlations with content, organization and expression in order. Thinking facilitation revealed correlations of .084~.307 with sub-variables of writing performance but organization and expression were not statistically significant. Use of emotional knowledge showed a very lower correlation of .114 with writing performance but it was not statistically significant. As for sub-variables, there were correlations with organization, expression and content in order. Use of emotional knowledge formed correlations of .089~.109 with sub-variables of writing performance but content, organization

and expression were not statistically significant. Control of emotion showed a very lower positive correlation of .129 with writing performance but it was not statistically significant. As for sub-variables, there were correlations with organization, expression and content in order. Control of emotion formed correlations of .093~.152 with sub-variables of writing performance but it was not statistically significant.

3. Effects of Emotional Intelligence and Writing Motivation on Writing Performance

1) Effects of Emotional Intelligence on Writing Motivation

Simple regression was conducted to analyze the effects of Emotional Intelligence on writing motivation. <Table 6> shows the results of the simple regression.

As a result of verifying the contribution of Emotional Intelligence to writing motivation and statistical significance, F statistics was 114.398 and p-value was .000. Emotional Intelligence explained writing motivation significantly at .001 of the significance level ($t=10.696$, $p=.000$) and 48% of the total variation of writing motivation was explained by Emotional Intelligence. Linear(regression line) equation revealing relationship between Emotional Intelligence and writing motivation may be estimated as follows.

$$\text{Writing Motivation} = -5.873 + .535(\text{Emotional Intelligence})$$

<Table 6> Simple Regression Results of Writing Motivation on Emotional Intelligence

Dependent Variable	Independent Variable	B	Standard Error	β	t	p-value	F
Writing Motivation	(constant)	-5.873	6.979		-.842	.402	114.398***
	EI	.535	.050	.699	10.696	.000	
$R^2(\text{adj. } R^2) = .488(.484)$							

*** $p < .001$

2) Effects of Emotional Intelligence on Writing Performance

Simple regression was conducted to analyze the effects of Emotional Intelligence on writing performance. <Table 7> shows the results of the simple regression.

As a result of verifying the contribution of Emotional Intelligence to writing performance and statistical significance, F statistics was 7.997, and p-value was .005. Emotional Intelligence explained writing performance significantly at .01 of the significance level($t=2.828$, $p=.005$) and 6% of the total variation of writing performance was explained by Emotional Intelligence. Linear(regression line) equation revealing relationship between Emotional Intelligence and writing performance may be estimated as follows.

$$\text{Writing Performance} = 14.317 + .052(\text{Emotional Intelligence})$$

<Table 7> Simple Regression Results of Writing Performance on Emotional Intelligence

Dependent Variable	Independent Variable	B	Standard Error	β	t	p-value	F
Writing Performance	(constant)	14.317	2.549		5.618	.000	7.997***
	EI	.052	.018	.250	2.828	.005	
$R^2(\text{adj. } R^2) = .062(.055)$							

*** $p < .01$

3) Effects of Emotional Intelligence and Writing Motivation on Writing Performance

Multiple regression was implemented to analyze the effect of Emotional Intelligence and writing motivation on writing performance. <Table 8> shows ANOVA table of the multi regression.

As a result of verifying the statistical significance of the model measuring the effect of Emotional Intelligence and writing motivation

<Table 8> ANOVA table of Regression Model(n=122)

	Sum of square	Degree of freedom	Mean square	<i>F</i>	유의확률 p-value
Linear regression	226.536	2	113.268	8.322	.000
Residual	1619.759	119	13.611		
Total	1846.295	121			
<i>R</i> 2(adj. <i>R</i> 2) = .123(.108)					

on writing performance, *F* statistics was 8.322 with .000 of p-value so Emotional Intelligence and writing motivation, independent variables in the model, explained writing performance of the dependent variable significantly at .05 of the significance level. Besides, 12.3% of the entire variation of writing performance(10.8% according to adjusted R-square) was explained by the independent variables in the model.

<Table 9> shows the results of the multiple regression having Emotional Intelligence and writing motivation as the independent variables and writing performance as the dependent variable.

<Table 9> Multiple Regression of Writing Performance(n=122)

Independent Variable	Unstandardized Coefficient		Standardized Coefficient	<i>t</i>	p-value
	B	Standard error			
EI	.002	.025	.010	.086	.931
Writing Performance	.093	.032	.343	2.858	.005
(constant)	14.861	2.483		5.985	.000

As a result of verifying the contribution of the independent variables, Emotional Intelligence and writing motivation to the dependent variable, writing performance with the statistical significance, independent variables having a significant effect on writing performance were writing motivation($t=2.858$, $p=.005$) and Emotional Intelligence in order at .05 of the significance level but Emotional Intelligence($t=.086$, $p=.931$) was not statistically significant.

4. Discussion

This study aimed to identify if Emotional Intelligence influences writing motivation, Emotional Intelligence influences writing performance, and Emotional Intelligence and writing motivation influence writing performance, and also if Emotional Intelligence and writing motivation may predict writing performance. Followings are interpretations and discussions based on research findings. Firstly, as a result of the correlation analysis between sub-domains of Emotional Intelligence and writing motivation, a sub-domain of Emotional Intelligence, thinking facilitation showed a relatively higher correlation with the effort, a sub-domain of writing motivation. In other words, when a student writer makes an effort to write, Emotional Intelligence checking if emotion may be used for thinking acts like problem-solving may have an effect. Accordingly, to increase efforts by a student when writing, it is needed to use a strategy controlling emotion for continual cognitive acts. As a result of the correlation analysis between sub-domains of Emotional Intelligence and writing performance, perception and expression of emotion, a sub-variable of Emotional Intelligence, showed a relatively higher correlation with writing performance. As for sub-variables of writing performance, content, organization and expression showed higher correlations in order. It reveals that students' perception and expression of emotion may have a relatively higher effect on content formation when writing for friendship and emotional expression. For instance, to be used for learning, activities for noticing emotion of themselves and others and expressing their emotion to others may be helpful for students who have difficulty in shaping the content when writing for friendship and emotional expression. Secondly, as a result of verifying the contributions of Emotional Intelligence to writing motivation and writing performance, Emotional Intelligence explained 48% of the entire variation of writing motivation and 6% of that of writing performance. It means that Emotional Intelligence has a greater effect on writing

motivation than on writing performance. The noteworthy thing is that measuring factors of Emotional Intelligence and writing motivation are composed mainly of the affective domains but those of writing performance consist mainly of the cognitive domains. These findings suggest several suggestions to writing education. Firstly, specific measures for emotion aspects including Emotional Intelligence to influence writing performance should be devised. Precedent studies confirmed that emotion has to be considered in a significant manner for student writing. (Driscoll & Powell, 2016; Fartoukh et al, 2012; Vass, 2007). However, Emotional Intelligence and writing performance have a correlation at a statistically significant level and if ever, shows a very lower level of influence. The effect of Emotional Intelligence on writing performance has a level similar to that of research by Choi(2015) showing that personality traits of a writer has an effect of 5% on writing performance. As mentioned by Han · Jeon · Kim · Park(2005), it relates to a fact that our research failed in recognizing clearly invisible human writing competency-related components and set abilities of vocabulary, sentence expression and paragraph construction commonly regarded to influence processes and results of composition as writing competency. Emotional Intelligence and writing motivation are much likely to be connected as psychological factors but specific measures for expanding the influence of Emotional Intelligence and writing performance are required. Furthermore, it is needed to reflect on whether our current writing competency concept based on vocabulary, sentence expression and paragraph construction abilities is valid or not. Such criteria are valid for cognitive competency centered on writing but critical consideration is needed on whether they can cover affective abilities influencing writing like emotion, personality and attitude. In case emotional aspects including Emotional Intelligence are important factors in writing performance, approaches and guidance measures for expanding their influence should be devised in a specific manner. Thirdly, as a result of measuring the effect of Emotional Intelligence and writing motivation on writing perfor-

mance, they explained 12.3% of the entire variation of writing performance for friendship and emotional expression. It means that student Emotional Intelligence and writing motivation influence writing performance at a statistically significant level when writing for friendship and emotional expression. Hence, as for writing for friendship and emotional expression in a third grade of an elementary school, it is required to reflect sub-elements of Emotional Intelligence and writing motivation into learning on writing and make an instructional-learning measure. Wing & Schutte & Byrne(2006) and Brand(1987) in their research mentioned about Emotional Intelligence influencing writing performance and maintained that measures helpful for successful writing performance of a writer should be devised while exploring what happens emotionally in a writing process of a writer and what difference is there in an emotion state of a writer according to a theme, reader and a writing environment". It means that it is needed to prepare an environment that may deal with the affective areas in writing education in order to apply Emotional Intelligence to writing performance, increase its influence and induce positive effects. Lee(2011: 53) mentioned that writing education must consider the growth of the affective aspects like self-reflection, personal aspects like inner development and socio-cultural aspects like interpersonal, cultural formations. Though not direct and visible unlike cognitive or compositional abilities, it plays an important role in improving writing competency of a writer.

V. Conclusion

This study intended to identify the effects of student Emotional Intelligence on writing motivation and experiential writing performance through the comparative analysis. Humans are social beings that have motive, belief and emotion as well as cognitive competency. Hence, affective abilities influence writing performance of a writer.

Paying attention to Emotional Intelligence, one of various affective areas, this study aimed to examine whether and how much Emotional Intelligence influences writing motivation and writing performance. Therefore, data about Emotional Intelligence, writing motivation and experiential writing performance were collected and analyzed for 122 third-graders at an elementary school located at Gyeonggi-do. Research findings are as follows.

Firstly, as for Emotional Intelligence, girl students surveyed in their third grade of the elementary school showed the mean higher than that of boy students. Girl students showed the mean higher than that of boy students not only for Emotional Intelligence but for writing motivation and writing performance.

Secondly, for the surveyed third-graders of the elementary school, Emotional Intelligence and writing motivation revealed a relatively higher positive correlation of .699. It shows that Emotional Intelligence has an effect on and a relatively higher correlation with writing motivation. As for sub-variables of Emotional Intelligence, thinking facilitation showed the highest correlation with writing motivation, and positive correlations with perception and expression of emotion, empathy, use of emotional knowledge and control of emotion in order.

Thirdly, for the surveyed third-graders of the elementary school, Emotional Intelligence and experiential writing performance showed a relatively lower positive correlation of .250. Emotional Intelligence had a correlation with writing performance but showed a relatively lower influence. As for sub-variables of Emotional Intelligence, perception and expression of emotion showed the highest correlation with writing performance, and positive correlations with empathy, thinking facilitation, use of emotional knowledge and control of emotion in order. Use of emotional knowledge and control of emotion were not statistically significant.

Fourthly, for the surveyed third-graders of the elementary school, Emotional Intelligence explained writing motivation statistically significantly at .001 of the significance level ($t=10.696$, $p=.000$) and 48%

of the total variation of writing motivation was explained by Emotional Intelligence. It was confirmed that Emotional Intelligence and writing motivation showed the statistically significant influence and it was a relatively large one. The great size of influence may be inferred from a similarity between Emotional Intelligence and writing motivation that are close to the affective factor. Hence, guidance for Emotional Intelligence is to be devised to improve writing motivation and relationship between Emotional Intelligence and writing motivation is to be identified based on correlation data between emotional intelligence and writing motivation sub-variables. Besides, along with careful attention to students having lower Emotional Intelligence, it is needed to examine if there is a relation between solution for negative problems caused from writing motivation and enhancement of emotional intelligence.

Fifthly, for the surveyed third-graders of the elementary school, Emotional Intelligence explained experiential writing performance statistically significantly at .01 of the significance level($t=2.828$, $p=.005$) and 6% of the total variation of writing performance was explained by Emotional Intelligence. Emotional Intelligence and writing performance showed the statistically significant influence but it was smaller than that of writing motivation.

Sixthly, as a result of measuring the effects of Emotional Intelligence and writing motivation on experiential writing performance, for the third-graders of the elementary school, Emotional Intelligence and writing motivation explained 12.3% of the entire variation of experiential writing performance for friendship and emotional expression. As for experiential writing by third-graders of the elementary school for friendship and emotional expression, Emotional Intelligence and writing motivation had a statistically significant effect. Therefore, it is needed to make an instructional-learning measure reflecting sub-elements of Emotional Intelligence and writing motivation into writing for friendship and emotional expression.

The affective factors including emotion have an invisible effect

on student writing performance. Emotion may be one of tools for estimating behaviors that writer shows from writing motivation and writing performance and one of learning factors to be checked and managed for positive writing performance. Therefore, it is needed to grope for writing education measures actively considering emotional aspects including Emotional Intelligence. Moreover, research to devise measures for using the affective factors including emotion is to be expanded.

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REFERENCES

- Brand, A. G. (1987). The why of cognition: Emotion and the writing process, *College Composition and Communication*, 30(4), 436-443.
- Caswell, N. (2011). Writing assessment: Emotions, feelings, and teachers, *The Cea Forum*, 40(1), 57-70.
- Chandler, S. (2007). Fear, teaching composition, and students' discursive choices: Re-thinking connections between emotions and college student writing, *Composition Studies*, 35(2), 53-70.
- Choi, J. Y. (2015). The effects of personality traits on writing ability for persuasive writing of Korean elementary school students. *Korean Language Education Research*, 50(4), 468-494.
- Driscoll, D. L., & Powell, R. (2016). States, traits, and dispositions: The impact of emotion on writing development and writing transfer across college courses and beyond, *Composition Forum*, 34, 1-16.
- Fartoukh, M., Chanquoy, L., & Piolat, M. (2012). Effects of emotion on writing processes in children. *Written Communication* 29(4), 391-411.
- Goleman, D. (1995). *Emotional intelligence*. New York: Bantom Books.
- Han, C. W., Jeon, E. J., Kim, M. S., & Park, Y. M. (2005). The research trends and tasks in Korean language arts area. *Korean Language Education Research*, 22, 31-96.
- Jeon, J. E. (2007). A Study on the writing motivation of an elementary school students: On the basis of the 4th and 6th grade. *Journal of CheongRam Korean Language Education*, 35, 83-107
- Lee, J. K. (2008). The tendency and task of composition studies: Three axiological approaches on composition. *Journal of CheongRam Korean Language Education*, 38, 185-217.
- Lee, J. S. (2011). The study on the subsections and criticizing of 2007 korean national curriculum: Focused on the writing area. *Research on writing*, 13, 33-59.
- Lee, C. H. (2012). Differences in emotional intelligence according to perceived parental rearing attitude type of elementary gifted. Graduate School of Education, Daegu University.
- Mayer, J. D., Caruso, D. R., & Salovey, P. (2000). Emotional intelligence meets traditional standards for an intelligence. *Intelligence*, 27, 267-298.
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2008). Emotional intelligence: New ability or eclectic traits?. *American Psychologist*, 63(6), 503-517.
- Moon, Y. L. (1997). *EQ diagnostic test*. Seoul: Daekyo.

- Moon, Y. L. (1998). Present and future of emotional intelligence research. Proceedings of autumn conference of The Korean Association of Child Studies, 3-16.
- Moon, Y. L. (1999). A study on emotional intelligence development program for personality education. *Journal of the College of Education*, 59, 31-98.
- Moon, Y. L. (2011). *Professor moon's lecture on emotional intelligence*. Goyang: Booksnut.
- Neisse, U. (1963). The imitation of man by machine. *Science*, 139, 193-197.
- Park, Y. M. (1999). The method and procedure of evaluating writing ability. *Korean Language Education*, 99, 1-29.
- Park, Y. M. (2006). The factors involved in writing motivation of secondary student writers. *Korean Language Education Research*, 26, 338-369.
- Park, Y. M., & Ka, E. A. (2009). The analysis of the writing motivation level and gender differences on writing performance in middle school students. *Korean Language Education Research*, 35, 241-269.
- Plutchik, R. (2004). *Emotions and life: Perspectives from psychology, biology, and evolution* (K. S. Park, Trans.). Seoul: Hakjisa.
- Salovey, P., Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality*, 9(3), 185-211.
- Salovey, P., Sluyter, D. J. (1997). *Emotional development and emotional intelligence: Educational implications*, New York: Basic Books, HarpCollins Pub.
- Shao, K., Yu W., & Ji, Z. (2013). The relationship between EFL students' emotional intelligence and writing achievement. *Innovation in Language Learning and Teaching*, 7(2), 107-124.
- Shiota, M. N., & Kalat, J. M. (2015). *Emotion* (2nd ed.) (K. H. Min, Trans.). Seoul: Cengage learning korea.
- Stenberg, A. (2011). Teaching and (re)learning the rhetoric of emotion, *Pedagogy*, 11(2), 349-369.
- Vass, A. (2007). Exploring processes of collaborative creativity: The role of emotions in children's joint creative writing, *Thinking Skills and Creativity*, 2, 107-117.
- Wing, J. F., Schutte, N. S., & Byrne, B. (2006). The effect of positive writing on emotional intelligence and life satisfaction, *Journal of Clinical Psychology*, 62(10), 1291-1302.
- Yoon, J. C. (2009). The developmental trends in elementary schoolers' attitude toward writing. *Research on writing*, 8, 277-297.

ABSTRACT

The Effects of Emotional Intelligence & Writing Motivation on experiential writing performance

: Focused on Third Graders in an Elementary School

Choi, Jongyoon

This study aims at analyzing The Effects of Emotional Intelligence & Writing Motivation on experiential writing performance. Hence, data were collected by random sampling on emotional intelligence, writing motivation and experiential writing performance for 122 students from B elementary school located at Gyeonggi-Do and descriptive statistics, correlation and regression analyses were conducted. Research findings are as follows. As a result of the correlation analysis, there was positive correlation of .699 between emotional intelligence and writing motivation and positive correlation of .250 between emotional intelligence and experiential writing performance. As result of measuring effects of emotional intelligence on writing motivation and performance, emotional intelligence had a relatively higher effect on writing motivation but a lower effect on experiential writing performance. Writing performance requires integration of cognition and emotion. Accordingly, it is needed to conduct following studies on relation between writing performance and emotion in addition to emotional learning measures for writing.

KEYWORDS Emotional intelligence, Writing motivation, Writing performance

APPENDIX 1. Emotional Intelligence & Writing Motivation measurement model

이 설문지는 초등학생의 정서 지능과 쓰기 동기를 진단하기 위해 제작되었습니다. 이 설문지는 연구 이외의 다른 목적으로는 사용하지 않을 것입니다. 이 설문지는 시험이 아니므로 긴장할 필요가 없으며 가능한 솔직하게 대답하여 주시길 바랍니다. 설문에 협조해 주셔서 감사합니다.

학년	반	번호	성별(남, 여)

■ 다음 문항을 읽고 자신과 더 가깝다고 생각하는 번호를 골라 ○ 표시해 주세요.

정서지능	매우 그렇다.	대체로 그렇다.	가끔 그렇다.	별로 그렇지 않다.	전혀 그렇지 않다.
1. 나는 다른 사람의 표정이나 말투만으로도 기분이나 감정을 잘 알아차리는 편이다.					
2. 나는 내 친구에게 기분 나쁜 일이 생기면 내 기분도 언짢고 속상하다.					
3. 나는 일이나 행동을 선택할 때 이후에 일어날 상황과 느낄 감정을 생각해 보는 편이다.					
4. 나는 어떤 사람을 사랑하는 동시에 미워할 수 있다고 생각한다.					
5. 나는 내가 느끼는 감정이나 기분을 잘 조절하는 편이다.					
6. 나는 그림이나 음악 속에 포함되어 있는 감정을 잘 이해하는 편이다.					
7. 나는 도움이 필요한 사람을 보면 불쌍하고 마음이 아프다.					
8. 나는 중요하다고 생각되는 일을 하기 위해 감정을 잘 조절하는 편이다.					
9. 나는 두려움이 복잡한 감정이라고 생각한다.					
10. 나는 누군가에게 화가 나면 그 일이 잊혀지지 않고 계속해서 떠오르는 편이다.					
11. 나는 친하지 않은 사람의 감정도 잘 파악하는 편이다.					
12. 나는 내 친구가 칭찬을 받고 좋아하면 정말 기분이 좋다.					
13. 나는 꼭 해야 할 일을 하기 위해 그 일에 흥미를 가지려고 노력하는 편이다.					
14. 나는 감정이나 기분이 복잡한 적이 있다.					
15. 나는 화가 나는 일이 있으면 반드시 그대로 표현하는 편이다.					
16. 나는 다른 사람의 감정표현이나 행동이 진실에서 우러난 것인지 아닌지 잘 알아차리는 편이다.					
17. 나는 저지나 구걸하는 사람을 보면 불쌍하고 안쓰럽다.					
18. 나는 중요하다고 생각되는 일을 하기 위해 당장 하고 싶은 일을 참는 편이다.					
19. 나는 좋아하는 것과 사랑하는 것의 감정의 차이를 잘 알고 있다.					
20. 나는 불쾌한 기분이 들면 어떤 일을 좋아하는 경우가 있다.					
21. 나는 나의 감정 상태를 잘 알고 있는 편이다.					
22. 나는 친하지 않은 사람이라도 즐거워하는 것을 보면 나도 기분이 좋다.					
23. 나는 중요한 일을 하지 않을 때 어떤 일이 벌어질까를 생각하는 편이다.					
24. 나는 사랑을 느낀다는 것이 단순한 감정이 아니라고 생각한다.					
25. 나는 아무리 친한 친구라고 해도 다들 화가 났는지 않는다.					
26. 나는 감정이나 기분을 상황에 맞게 적절히 표현하는 편이다.					
27. 나는 내 친구가 성격이 달라서 좋아하면 축하해주고 싶다.					

	매우 그렇다.	대체로 그렇다.	가끔 그렇다.	별로 그렇지 않다.	전혀 그렇지 않다.
28. 나는 감정에 따라 내가 할 수 있는 능력이 달라질 수 있다고 생각한다.					
29. 나는 짜증과 분노의 감정에 공통점과 차이점이 있다고 생각한다.					
30. 나는 기분 나쁜 일이 생기면 다른 일에 방해되지 않으려고 있으려고 노력한다.					
31. 나는 다른 사람의 감정이나 기분을 잘 모르는 편이다.					
32. 나는 거지를 보면 불쌍하고 도와주고 싶기보다 지저분하고 무능력하다고 느끼게 된다.					
33. 나는 즐거운 기분으로 인해 어떤 어려움을 잘 해결해 본 경험이 있다.					
34. 나는 분노라는 감정도 차이가 있다는 것을 안다.					
35. 나는 우울하거나 슬퍼서 한동안 아무 것도 못한 적이 있다.					
36. 나는 어떤 사람에게 호감을 갖거나 좋아해도 표현을 제대로 못하는 편이다.					
37. 나는 도움이 필요한 아이를 모른척하는 편이다.					
38. 나는 어떤 것을 선택할 때 예전에 비슷한 상황에서 내 감정이 어땠었는지를 생각해본곤 한다.					
39. 나는 분노라도 상황에 따라 다른 감정으로 바뀔 수 있다고 생각한다.					
40. 나는 내 일이 마음대로 되지 않으면 짜증을 잘 내는 편이다.					
쓰 기 동 기	매우 그렇다.	조금 그렇다.	보통 이다.	그렇지 않다.	전혀 그렇지 않다.
1. 나는 내가 쓴 글을 다른 사람에게 보여주는 것을 좋아한다.					
2. 나는 내가 글을 잘 쓴다고 생각한다.					
3. 나는 다른 사람들보다 글을 잘 쓰기 위해 더 노력할 것이다.					
4. 나는 별로 쓰고 싶지 않은 주제라도 끝까지 글을 쓴다.					
5. 내가 쓴 글을 다른 사람이 읽어 주기를 바란다.					
6. 나는 글로 표현하는 능력이 우수하다고 생각한다.					
7. 나는 글을 잘 쓰는 것이 중요하다고 생각한다.					
8. 나는 글쓰기를 하다가 어려울 때 잘 극복할 수 있는 방법을 찾아낼 수 있다.					
9. 나는 내가 쓴 글을 다른 사람에게 평가 받기를 좋아한다.					
10. 가끔은 다른 사람들이 내가 글을 잘 쓴다고 한다.					
11. 나는 쓰기 과제가 요구하는 것에 따라 글을 쓰려고 노력한다.					
12. 나는 친구와 서로가 쓴 글을 돌려 읽는다.					
13. 나는 앞으로 글쓰기를 잘 할 수 있을 것이라고 생각한다.					
14. 나는 다른 사람들(예: 친구)보다 글을 잘 쓰려고 노력한다.					
15. 나는 내가 쓰는 글의 내용에 대해 다른 사람과 자주 이야기한다.					
16. 나에게 글 쓰는 일이 부담스럽지 않고 자연스럽다.					
17. 쓰기 과제는 글까지 다 하는 것이 중요하다고 생각한다.					
18. 나는 말보다 글로써 다른 사람에게 내 생각을 더 잘 전달할 수 있다.					
19. 나는 글을 잘 쓰기 위한 방법을 계속적으로 시도해 본다.					