

The Effect of Instructional Methods and Cognitive Styles toward Speaking Skill

Nita Kaniadewi*

University of Muhammadiyah Prof. DR. HAMKA (UHAMKA), Jakarta, Indonesia

DOI: 10.22236/JER_Vol2Issue1pp44-54

This study investigated the effect of instructional methods and students' cognitive styles toward speaking skill. It was an experimental research using a two-factor ANOVA at 0.05 and 0.01 significance level. Because an interaction between the variables involved was found, the analysis was then continued by Tuckey Test. The data was collected using oral test rating scale and a cognitive style questionnaire. The findings showed the following points: (1) the speaking skill of the students taught by CLL (Cooperative Language Learning) was higher than the students taught by TBL (Task-Based Language Learning); (2) the speaking skill of FD (Field Dependent) students was higher than FI (Field Independent) students; (3) there was an interaction between instructional methods and cognitive style to speaking skill; (4) the speaking skill of the students taught by CLL was higher than the students taught by TBL in the group of FD students; (5) there was no significant difference of the speaking skill of the students taught by CLL and the students taught by TBL in the group of FI students. The findings above led to a conclusion that generally CLL was more effective than TBL in teaching speaking skill. Moreover, besides instructional methods, cognitive style also gives a significant effect to students' speaking skill.

Keywords: speaking skill, CLL (Cooperative Language Learning), TBL (Task-Based Learning), FD (Field Dependence), FI (Field Independence)

Penelitian ini bertujuan untuk menemukan pengaruh metode pembelajaran dan gaya kognitif terhadap keterampilan berbicara bahasa Inggris mahasiswa semester I Program Studi Pendidikan Guru Sekolah Dasar (PGSD). Metodologi yang digunakan adalah eksperimen dengan desain ANOVA dua jalur pada taraf signifikansi 0,05 dan 0,01. Data dikumpulkan dengan menggunakan dua instrumen yaitu keterampilan berbicara bahasa Inggris yang berupa rubrik penilaian dan gaya kognitif yang berupa angket. Temuan penelitian ini menunjukkan bahwa (1) keterampilan berbicara bahasa Inggris mahasiswa yang belajar dengan metode CLL lebih tinggi dibandingkan keterampilan mahasiswa dengan metode TBL; (2) keterampilan berbicara bahasa Inggris mahasiswa yang memiliki kecenderungan gaya kognitif FD lebih tinggi dibandingkan keterampilan mahasiswa dengan kecenderungan gaya kognitif FI; (3) terdapat pengaruh interaksi antara metode pembelajaran dan gaya

* Corresponding author. Email: nitakaniadewi@uhamka.ac.id

kognitif terhadap keterampilan berbicara bahasa Inggris; (4) keterampilan berbicara bahasa Inggris mahasiswa yang belajar dengan metode CLL lebih tinggi dibandingkan dengan yang belajar metode TBL pada kelompok mahasiswa yang memiliki kecenderungan gaya kognitif FD; (5) tidak terdapat perbedaan yang signifikan antara keterampilan berbicara bahasa Inggris mahasiswa yang belajar dengan metode TBL dan CLL pada kelompok mahasiswa yang memiliki kecenderungan gaya kognitif FI. Secara keseluruhan penerapan metode CLL lebih efektif dibandingkan metode TBL dalam pembelajaran keterampilan berbicara bahasa Inggris. Selain itu, gaya kognitif juga terbukti memberikan pengaruh yang signifikan terhadap keterampilan berbicara bahasa Inggris.

INTRODUCTION

Pendidikan Guru Sekolah Dasar (PGSD) or Primary School Teacher Training Program, a bachelor program preparing its graduates to be a primary school teacher in Indonesia, obtain a two-semester English courses. The courses aim to produce students to have English speaking skills. This is because the ever-growing number of elementary schools adopting English as a medium of instruction in almost all subjects requires elementary school teachers to have a good command of English. There are still some problems, though. Based on the writer's preliminary investigation, the courses do not seem to achieve the expected result yet: many students cannot speak English well in spite of their previous courses at secondary education. Two causes of the problems may be the improper application of instructional methods and the teachers' unawareness of students' cognitive styles. Therefore, this study is interested in investigating the two aspects.

The instructional methods the EFL (English as a Foreign Language) literature offers are, among others, Cooperative Language Learning (CLL) and Task-Based Language Learning (TBL). CLL is a method of teaching that engages students to work together in groups and requires students to get involved in interaction and communication to help each other to achieve a goal. CLL highly depends on the process of information exchange that occurs in the group, and all members of the group are responsible for not only their personal success but also the group members' success. Two examples of CLL are Student Teams Achievement Divisions (STAD) and jigsaw. STAD, according to Slavin (1995), consists of five components: class presentations, teams, quizzes, individual improvement scores, and team recognitions. He goes on to say that STAD emphasizes group work in which all members help each other in order to achieve a goal. However, every student still has the responsibility to excel individually. On the other hand, Jigsaw involves active participation of all members. This technique could build students' responsibility for both personal and group learning success (Richards & Rodgers, 2001).

With regard to TBL, it is an instructional method that uses tasks to achieve the learning objective. There are at least three main elements of TBL. First, it employs communicative approach (Richards & Rodgers, 2001), meaning that meaning is more important than sentence patterns. Second, it involves meaningful interaction that requires students to complete a certain task (Branden, 2006). Finally, the task must be relevant to students' real needs (Nunan, 2004). What is task in TBL? Willis (1996) argues that any activity that involves using language to communicate can be categorized as task. However, instead of emphasizing sentence patterns mastery, task focuses more on students' ability to convey meaning or message (Nunan, 2004). Willis (1996) offers a general model of how to implement TBL by dividing it into three stages: pre-task, task-cycle, and language focus. In the pre-task, the target language is exposed and presented in large numbers. Then students are given the opportunity to use whatever language they have to complete a certain task in

the task-cycle stage. In the final stage, they bring all aspects of language that comes naturally as they perform the task.

As mentioned, another problem of teaching English for PGSD students may be the teachers' unawareness of students' cognitive learning styles. Two cognitive styles are Field Dependence (FD) and Field Independence (FI). Some authors have proposed the characteristics of FD and FI (e.g. Brown, 2007; Saracho, 1997; Sternberg, 1997; Tinajero & Paramo, 1998; Woolfolk, 1993), and some authors have conducted a study on FD and FI (e.g. Guillot, Collet & Dittmar, 2004; Hansen, 1984; Liu & Chepyator-Thomson, 2009; Rahmani, 2016; Zhang, 2004). The characteristics of FD and FI have been synthesized, as can be seen in the table below:

Table 1: Differences between people/students with FD and FI

Field Dependence (FD) People/Students	Field Independence (FI) People/Students
prefer general and abstract things	prefer detailed and concrete things
tend to take longer time than FI people to resolve problems	tend to take less time than FD people to resolve problems
show high interest in people; more attentive to people; able to impress a lot of people; very concerned about what other people do, say, or feel; enjoy being with people; very responsive to other people's emotional expression, either of facial expressions or utterances; use other people's emotional expression as their social framework	tend not to be affected by other people's companion, feelings, words, and emotional expressions; tend to be more independent, competitive, and confident
prefer and more successful in studies related to dimensions of human life; prefer and more successful in jobs that involve a lot of interaction with people, such as school teachers, traders, or rehabilitation counselors	prefer and more successful in areas that are impersonal and abstract (like mathematics and physics) and jobs that do not require too much interaction with other people (such as astronomers or engineers)
will be more responsive to teachers and undoubtedly use all the opportunities they have to ask questions, answer, give comments, etc.	tend to be more passive in the classroom and do not respond much to teachers.
tend to accept the learning material as it is from the teacher and have difficulties in rearranging unstructured learning materials	are better in rearranging unstructured learning materials from the teacher
would be greatly helped by learning which involves natural communication with other people	are more successful through classroom activities such as drilling, written exercises, tests, quizzes, and so on
would learn a second language easier when they have direct contact with the native speakers in a structured way	will usually be better in understanding and applying language rules, in identifying a wide range of grammar, and in doing written exercises such as cloze tests. In addition, the ability to focus on details will make them easier to recognize grammatical functions and identify specific language rule

are best motivated through: verbal praise, external reinforcement, being given opportunities to help teachers, and doing useful activities to others.	are best motivated through: scores, competition, choice of learning activities, especially activities that bring many advantages for them personally.
---	---

Based on the abovementioned information, the writer poses five research questions: (1) Is there any difference between the speaking skill of the students taught by CLL and the students taught by TBL? (2) Is there any difference between the speaking skill of FD students and FI students? (3) Is there any interaction between instructional methods and cognitive style to speaking skill? (4) Is there any difference between the speaking skill of the students taught by CLL and the students taught by TBL in the group of FD students? (5) Is there any difference between the speaking skill of the students taught by CLL and the students taught by TBL in the group of FI students?

METHOD

This study adopted experimental research taking place at a private university in Jakarta, Indonesia. All participants were PGSD students. It aimed at investigating the effect of instructional methods and students' cognitive style towards speaking skill. CLL was applied in experimental group (n=40), while the control group (n=40) was given TBL. The treatments in both groups were conducted in 10 meetings each. The study used 2 x 2 factorial design, as can be seen below:

Table 2: Matrix of the research design

Independent Variables		Instructional methods (A)	
		CLL (A ₁)	TBL (A ₂)
Cognitive Style (B)	FD (B ₁)	A ₁ B ₁ Cell 1	A ₂ B ₁ Cell 2
	FI (B ₂)	A ₁ B ₂ Cell 3	A ₂ B ₂ Cell 4

The instruments used to collect the data in this study were oral test rating scale and cognitive style questionnaire. The data were analyzed using a two-factor ANOVA at 0.05 and 0.01 significance level. Since the interaction between the variables was found, the analysis was continued using the Tuckey Test.

FINDINGS AND DISCUSSION

The table below summarizes the data obtained with regard to the five research questions posed in this study: (1) the speaking score of the students taught by CLL; (2) the speaking score of the students taught by TBL; (3) the speaking score of FD students; (4) the speaking score of FI students; (5) the speaking score of FD students taught by CLL; (6) the speaking score of FD students taught by TBL; (7) the speaking score of FI students taught by CLL; and (8) the speaking score of FI students taught by TBL.

Table 3: The summary of the speaking scores

No.	Group of Data	Statistical Data				
		n	lowest score	highest score	mean	standard deviation
1	CLL (A ₁)	22	15	30	23.86	3.17
2	TBL (A ₂)	22	15	27	20.86	1.94
3	FD (B ₁)	22	16	30	23.73	2.72
4	FI (B ₂)	22	15	30	21	2.4
5	CLL - FD (A ₁ B ₁)	11	20	30	26.18	2.71
6	TBL - FD (A ₂ B ₁)	11	16	26	21.27	2.84
7	CLL - FI (A ₁ B ₂)	11	15	30	21.55	4.38
8	TBL - FI (A ₂ B ₂)	11	15	27	20.45	3.1

Before the data were calculated using 2-way ANOVA, the writer did Liliefors and Barlet tests to find out normality and homogeneity. The results showed that the data were normal and homogeneous. The analysis was continued with the hypothesis testing by using 2-way ANOVA. The table below displays the summary of ANOVA calculation.

Table 4: Summary of two-way ANOVA calculation

Variance	df	Total Square	Mean Square	F _{computation}	F _{table}	
					$\alpha = 0.05$	$\alpha = 0.01$
between column (A)	1	99.00	99.00	8.12**	2.84	4.31
between row (B)	1	81.82	81.82	6.71**	2.84	4.31
interaction (AB)	1	40.09	40.09	3.29*	2.84	4.31
internal	40	487.77	12.19			
Total	43					

Note:

Column (A) : instructional methods (CLL and TBL)

Row (B) : cognitive styles (FD and FI)

* : significant

** : very significant

Since an interaction between A (instructional methods) and B (cognitive styles) was found, the analysis was followed by Tuckey test to determine which groups were better. The table below displays the result of the calculation.

Table 5: Summary of Tuckey test

Group of Data	df	Q _{computation}	Q _{table}		Notes
			$\alpha = 0.05$	$\alpha = 0.01$	
A ₁ – A ₂	22	4.05**	2.95	4.02	very significant
B ₁ – B ₂	22	3.69*	2.95	4.02	significant
A ₁ B ₁ – A ₂ B ₁	11	4.68**	3.11	4.39	very significant
A ₁ B ₂ – A ₂ B ₂	11	1.04	3.11	4.39	not significant

The Effect of Instructional Methods (CLL and TBL) towards Speaking Skill

The first results of ANOVA and Tuckey calculation answered the first research question: Is there any difference between the speaking skill of the students taught by CLL and the students taught by TBL? As seen on Table 4 and 5 above, the results showed that $F_{\text{computation}}(A) = 8.12 > F_{\text{table}}$ and $Q_{\text{computation}}(A_1-A_2) = 4.05 > Q_{\text{table}}$, both at significance level $\alpha = 0.05$ and $\alpha = 0.01$. This was an empirical evidence that speaking skill of the students taught by CLL was higher than those taught by TBL. How could this happen?

First, in this research, jigsaw was implemented in the CLL class. This technique, though not instantly, managed to ‘force’ all students to become more active learning participants. They finally recognized that everyone had a very important role in helping the group. This condition naturally made them more responsible and participate more actively. Meanwhile, jigsaw technique was not applied in the TBL class. Students were not given the responsibility to teach a piece of material to their friends. Thus, the students’ sense of responsibility and activeness were different from those in the CLL class.

Second, CLL allowed students to work together, interact, communicate, and help each other more intensively than TBL. This was mostly shown when the students returned to their home group to share the new material. It was also seen as they prepared for the individual quiz. It was the moment when they learned not only to share knowledge but also to teach each other so that everybody could reach the learning outcome. Moments like these were less seen in the TBL class. In other words, the collaboration, interaction, and mutual help that happened in the TBL class were not as intensive as in the CLL group.

Third, the CLL class always applied learning in groups. Learning in groups was very good for developing speaking skills. Group learning allowed interactions to happen simultaneously and enabled students to receive more language input. These things were less found in the TBL class. Because TBL emphasized learning task, learning in groups was never the primary focus. Thus, students’ opportunity to interact and the language input students got were not as much as in the CLL class.

Fourth, more permanent group membership and being responsible for other people’s success seemed to increase the opportunities for the group to be more solid and strong. As the group became more solid, the members would motivate each other more, providing support and encouragement despite without being asked by the teacher. This condition was very important in increasing the students’ learning motivation. Unfortunately, this situation was less found in the TBL class.

Fifth, it was found that teaching in the CLL class was easier. The students in this class paid more attention and focused more on the lesson. This happened because each student was given a responsibility that affected not only himself but also all his group members. Moreover, the seat arrangement in this class required each student to sit with his group. In so doing, the student could not sit near his friends with whom he usually chatted during the class. These sort of things were less common in the TBL class. Besides not being

given a responsibility that affected other people's success, the students also tended to sit wherever they liked. It was easier for them to adjust the seating position with whom they felt comfortable, including with whom they felt comfortable chatting during lectures. Thus, in this case, teaching in the TBL class required greater effort and energy.

The differences between learning that took place in the CLL class and that in the TBL class, as described above, influenced the students' English speaking skills significantly. In other words, the main difference between CLL and TBL regarding English speaking skills is that CLL is better than TBL.

The Effect of Cognitive Styles (FD and FI) towards Speaking Skill

The second results of ANOVA and Tuckey computation answered the second research question: Is there any difference between the speaking skill of FD students and FI students? As seen on Table 4 and 5 above, $F_{\text{computation}}(B) = 6.71 > F_{\text{table}}$, both at significance level $\alpha = 0.05$ and $\alpha = 0.01$. Moreover, $Q_{\text{computation}}(B1-B2) = 3.69 > Q_{\text{tabel}} = 2.95$ at significance level $\alpha = 0.05$. This was an empirical evidence that the speaking skill of FD students was higher than FI students.

As discussed earlier, this study raised the issue of FDI as one dimension of cognitive style. FDI affects how people process information and how they react to various situations, including learning situation in the classroom. The research showed that students with FD, who were better in interpersonal skills, tended to be more sensitive to the people around them. They paid more attention to the feelings and thoughts of others, more careful and friendly, and had high sense of empathy. In addition, they enjoyed learning activities that involved interactions. They believed that the success of learning a second language was acquired through direct communication with native speakers of the language, not through classroom teachings. Therefore, they considered grammatical analysis in the classroom was very boring. However, FD students' dependency to the existence of other people was quite high. They needed help from others not just to re-explain the lessons but also to find solutions to the learning difficulties they encountered. They were also heavily influenced by other people's criticism.

On the contrary, students with FI were more analytical and were capable of focusing on detail things. They loved grammatical analysis, drilling, cloze tests, and so on. They believed that the success of learning a second language came from classroom learning. They tended to be more independent in many ways such as in doing tasks, solving problem, and in providing reinforcement and motivation for themselves. They were not affected by outside criticism. However, students with FI were weaker in interpersonal skills. Their independent character made them prefer working alone and did not enjoy learning activities that involve too much interaction. They also tended to be less active in giving responses to teacher's explanations.

Speaking skill, as one of the variables in this study, promoted activities that required students to communicate with others, either in pairs or groups. In these activities, the students were 'forced' to speak, exchange information, negotiate meaning, etc. in order to complete the tasks assigned to them well. Of course, such learning conditions were not always beneficial. For FD students, whose interpersonal skills were better, the conditions were favorable. They had no difficulties in doing interactions with their friends, seemed to enjoy the lesson, and were more adaptable. Meanwhile, FI students who preferred to work alone did not really show signs of enjoyment. They tended to be quieter and less active in giving response. Actually, their being silence did not necessarily mean they did not understand or were confused what to say. They did understand, yet they did not seem to be as enthusiastic as FD students who actively immersed themselves in the activities that, once again, involved interactions. The teacher had to repeatedly remind and ask FI students to participate more

actively. This was what seemed to make FI students became weaker in pronunciation and fluency. They actually had enough grammar, yet because they tended to be more silent, their pronunciation and fluency did not develop well. As a result, the speaking skill of FD students was better than that of FI students.

The Interaction between Instructional Methods and Cognitive Styles towards Speaking Skill

The third result of ANOVA calculation answered the third research question: Is there any interaction between instructional methods and cognitive style to speaking skill? As seen on Table 4 above, $F_{\text{computation}}(AB) = 3.29 > F_{\text{table}} = 2.84$ at significance level $\alpha = 0.05$. This was an empirical evidence that there was significant interaction between instructional methods (CLL and TBL) and cognitive styles (FD and FI) towards speaking skill.

Speaking is a skill that involves a series of thinking. In order to be understood by others, a speaker must pay attention to the grammar, vocabulary, and pronunciation he uses. This generally becomes an obstacle for foreign language learners. They prefer to remain silent although they actually have something to say. They feel unable to use proper grammar and do not have a sufficient vocabulary to express their ideas. This is a sign for teachers to pay more and more attention to speaking skill. Teaching speaking skill, therefore, requires the application of appropriate methods.

In EFL, methods continue to develop. CLL and TBL are two methods currently used in teaching English. In this research, the differences of both methods have proven to affect the students. CLL that involved more teamwork and interactive activities was more advantageous for the students with high social sensitivity. Meanwhile, TBL, which gave more emphasis in the completion of tasks, either done individually or in group, was more advantageous for the students who enjoyed working alone. In other words, learning success through the application of both methods was greatly influenced by students' individual differences.

FD and FI are some types of individual differences that examine one's dependency towards a large field. Such dependency will affect the information processing in one's brain. In this research, FD students were found to prefer learning activities that involved interaction with others. On the other hand, FI students, whose interpersonal skills were not as good as FD students, preferred to work alone and did not like learning activities that involve too much interaction. With regard to the differences between CLL–TBL and FD–FI, it was found that those differences resulted in different effects to students' speaking skills. In other words, an interaction between instructional methods and cognitive style towards speaking skill existed.

The Effect of Instructional Methods (CLL and TBL) towards Speaking Skill in the Group of FD Students

The third result of Tuckey calculation answered the fourth research question: Is there any difference between the speaking skill of the students taught by CLL and the students taught by TBL in the group of FD students? As seen on Table 5 above, $Q_{\text{computation}}(A1B1-A2B1) = 4.68 > Q_{\text{table}}$, both at significance level $\alpha = 0.05$ and $\alpha = 0.01$. This was an empirical evidence that the speaking skill of the students taught by CLL was higher than the students taught by TBL in the group of FD students.

As discussed earlier, CLL emphasized learning in groups. However, not all group learning can be considered cooperative learning. There are at least three fundamental principles that must be fulfilled, namely, positive interdependence, individual accountability, and group processing. With those principles, the students will naturally motivate, support, teach, and help each other. Meanwhile, TBL used the power of learning

tasks to achieve the learning goal. TBL applied communicative approaches that focused more on meaning rather than language rules. Students were free to use any sentence patterns or whatever grammar they had to convey the meaning well. Tasks were designed in such a way that resembled the actual language use.

Comparing the two methods, TBL did not put too much emphasis in group learning as in CLL. In TBL, either working individually, in pairs, or in groups was never the main concern. The focus was on the use of learning tasks. Students' interaction in TBL was not as intensive as in CLL. TBL did not provide the mutual support and assistance among students as CLL did. Also, the groups in TBL did not have a permanent membership. The differences between CLL and TBL were proven to affect the English speaking skills of FD students. The students, who tended to have higher social sensitivity, worked better with CLL. CLL was seen more suitable for developing FD students' interpersonal skills. Moreover, since CLL required all group members to help, support, and motivate each other, CLL was very suitable with FD students' dependent character. On the contrary, the learning atmosphere in the TBL class was not very much suitable with the characteristics of FD students. Hence, the speaking skill of FD students taught by CLL was higher than that of FI students taught by TBL.

The Effect of Instructional Methods (CLL and TBL) towards Speaking Skill in the Group of FI Students

The fourth result of Tuckey calculation answered the fifth research question: Is there any difference between the speaking skill of the students taught by CLL and the students taught by TBL in the group of FI students? As seen on Table 5 above, $Q_{\text{computation}}(A1B2-A2B2) = 1.04 < Q_{\text{table}}$, both at significance level $\alpha = 0.05$ and $\alpha = 0.01$. This was an empirical evidence that there was no significant difference between the speaking skill of the students taught by CLL and the students taught by TBL in the group of FI students. In other words, the fifth hypothesis was rejected. How can this happen?

First of all, the discussion starts with the rationale of the fifth hypothesis. As stated earlier, CLL involves students to work in groups, where they interact, communicate, and help each other. FI students who are more independent and prefer to work alone are assumed will not benefit from this situation. Meanwhile, TBL seems to offer a friendlier learning atmosphere for FI students. In TBL, students do not always work in groups. Sometimes they work in pairs or individually. When they work in groups, they are not given the responsibilities to help other members. The group serves only as a means to accomplish a task. Instead of constantly working in groups as in CLL, this situation seems slightly better for students with FI. In addition, the last procedure in TBL, language focus, offers linguistic analysis activities assumed to match the character of FI students who naturally enjoy doing analysis. Thus, it is hypothesized the speaking skill of the students taught by TBL is higher than the students taught by CLL in the group of FI students.

However, the findings showed that the mean of the students taught by CLL and the mean of the students taught by TBL were not much different compared to the other mean (see Table 3). The difference was relatively smaller. It indicated that for FI students, CLL and TBL were not much different. The similarities and differences between CLL and TBL did not seem to affect students with FI. The findings showed that FI students, who tended to be more independent, were not easily influenced by other people or situation, including instructional methods. They always found their way to rearrange the learning materials no matter how the lessons were delivered or what method was used. This characteristic of FI students was believed to be the reason why the last hypothesis was rejected. In other words, there was no significant difference between the speaking skill of students taught by CLL and students taught by TBL in the group of FI students.

CONCLUSIONS

Based on the aforementioned findings, it can be concluded that instructional methods and cognitive styles are proven to affect students' speaking skill. Therefore, there are some suggestions that can be done as an effort to improve students' speaking skill and similar research in the future. First, CLL may be used to teach speaking to the first semester PGSD students. This suggestion applies both for FD and FI students. Second, in implementing CLL, the fulfillment of cooperative learning basic principles should be prioritized. Without these principles, it is very likely the learning outcome be far from expectation. Third, in order to achieve better learning outcome, it is necessary to conduct an identification of students' cognitive styles, so that learning activities can be designed in harmony with students' cognitive styles. Four, English teachers are expected to continuously expand their knowledge about various instructional methods and individual differences that may affect learning success. Finally, since the result proves that there is an interaction between instructional methods and cognitive style to speaking skill, further research, using larger subjects and better methodology, needs to be conducted.

REFERENCES

- Branden, K. (Ed.). (2006). *Task-Based Language Education: From Theory to Practice*. Cambridge: Cambridge University Press.
- Brown, H. D. (2007). *Teaching by Principles: An Interactive Approach to Language Pedagogy - Third Edition*. London: Longman.
- Guillot, A., Collet, C., & Dittmar, A. (2004). Relationship between visual and kinesthetic imagery, field dependence-independence, and complex motor skills. *Journal of Psychophysiology, 18*, 190–198.
- Hansen, L. (1984). Field dependence-independence and language testing: Evidence from six pacific island cultures, *TESOL Quarterly, 18*(2), 311-324.
- Liu, W., & Chepyator-Thomson, J. R. (2009). Field dependence–independence and physical activity engagement among middle school students. *Physical Education and Sport Pedagogy, 14*(2), 125-136.
- Nunan, D. (2004). *Task-based Language Teaching*. Cambridge: Cambridge University Press.
- Rahmani, B. D. (2016). The relationship between field dependence-independence and reading strategy toward reading comprehension. *Journal of ELT Research, 1*(1), 37-51.
- Richards, J. C., & Rodgers, T. S. (2001). *Approaches and Methods in Language Teaching – Second Edition*. Cambridge: Cambridge University Press.
- Saracho, O. N. (1997). *Teachers' and Students' Cognitive Styles in Early Childhood Education*. London: Bergin and Garvey.
- Slavin, R. E. (1995). *Cooperative Learning: Theory, Research, and Practice - Second Edition*. The USA: Allyn and Bacon Inc.
- Sternberg, R. J. (1997). *Thinking Styles*. Cambridge: Cambridge University Press.
- Tinajero, C., & Paramo, F. (1998). Field Dependence-Independence in Second Language Acquisition: Some Forgotten Aspects. *The Spanish Journal of Psychology, 1*(1), 32-38.
- Willis, J. (1996). *A Framework for Task-Based Learning*. London: Longman.

Woolfolk, A. (1993). *Educational Psychology – Fifth Edition*. New Jersey: Allyn and Bacon Inc.

Zhang, L. (2004). Field-dependence/independence: cognitive style or perceptual ability? - validating against thinking styles and academic achievement. *Personality and Individual Differences*, 37(6), 1295–1311.