



## **A Symbiosis of Contingent Models to Scaffold EFL Learners towards Self-regulation and Willingness to Communicate**

**Manoochehr Jafari Gohar** (Corresponding Author)

*Department of TEFL, Payame Noor University, Tehran, Iran*

[jafari@pnu.ac.ir](mailto:jafari@pnu.ac.ir)

**Fatemeh Zununi Vahed**

*Department of TEFL, Payame Noor University, Tehran, Iran*

[fateme.zununi@gmail.com](mailto:fateme.zununi@gmail.com)

**Abdullah Sarani**

*Department of TEFL, University of Sistan and Baluchestan, Zahedan, Iran*

[sarani\\_ling@hamoon.usb.ac.ir](mailto:sarani_ling@hamoon.usb.ac.ir)

**Ali Hadavizadeh**

*Department of TEFL, Payame Noor University, Tehran, Iran*

[hadavizadeh\\_ali@yahoo.com](mailto:hadavizadeh_ali@yahoo.com)

**Hoda Divsar**

*Department of TEFL, Payame Noor University, Tehran, Iran*

[hodadivsar@gmail.com](mailto:hodadivsar@gmail.com)

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### **Abstract**

Scaffolding entails contingency, denoting teachers' level adaptation in providing transient support. In this study, a symbiosis of the model of contingent teaching (MCT) and the contingent shift framework (CSF) was utilized. Therefore, 360 elementary and advanced EFL learners took a course and filled out two sets of related questionnaires twice, administered at the outset and the end of the course. The transcribed data including the class interactions and intervention strategies were organized into contingent or non-contingent fragments based on models' criteria. According to the results of the Wilcoxon rank test and the Paired Sample t-test, there was a significant difference between the results of the pre and post-tests in the two mentioned levels for the two constructs. Furthermore, the results of the Single Sample t-test showed that the CSF was more utilized than the MCT in both levels. Moreover, the intervention strategies of the MCT significantly differed in the two levels. Questioning was a highly used strategy at both levels. Hints and modeling were the least utilized strategies in elementary and advanced levels, respectively. Therefore, such contingent symbiosis could have prolific results in self-regulation and gaining willingness to communicate.

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### **Introduction**

Scaffolding, a tenet of the socio-cultural theory (SCT), pertains to a type of transient support that makes the learner work within their zone of proximal development (ZPD) and entails contingency; the latter, refers to level adaptation just within the ZPD to prepare the learner for independence and responsibility once the support fades away. This, in return, can help a language learner gain a penchant for communicating in the new language and step by step self-regulate themselves. Scaffolding has three main constituents, contingency, fading, and transfer of responsibility, according to Van de Pol, Oort, and Beishuizen (2015). Contingency, as the necessary ingredient of the scaffolding process, can be implemented in teacher-learner interactions within specific frameworks. According to Van de Pol et al. (2019), contingent support and timely fading of it is shown to lead to learner success of in-taking teacher's instruction. Though the review of pertinent literature discloses numerous research studies in the area of scaffolding, most have focused, however, on the various types of support and scaffolding provided to learners, neglecting the crucial element of the scaffolding; that is contingency. Furthermore, seldom have teacher-student interactions been considered whereas small-group interactions have generally been taken into account.

This study was motivated by the belief that any effective language instruction needs to fall within the competence level of a learner, where the teacher can first diagnose a learner's problem, then employ some diagnostic and intervention strategies to scaffold the learner contingently. In this study, a symbiosis of the model of contingent teaching (MCT) and the contingent shift framework (CSF) was employed to contingently scaffold EFL learners and pave the way for their self-regulation and willingness to communicate.

### **Review of the Literature**

According to Vygotsky (1978), development occurs at two levels: 1) the actual development level referring to a child's mental functions established as a result of certain completed developmental cycles and 2) the potential development level demonstrated in problem-solving when assisted by an adult or an expert. This second level is referred to as the ZPD, or the "bud" rather than the "fruit" of development, to recite Vygotsky's own words. For the ZPD to expand and be realized, guided help is needed; this help is metaphorically called "scaffolding", referring to the transient support the teacher provides. For development and learning to take place, this support must gradually fade away to leave room for learner independence.

Scaffolding is recognized to be effective for student learning (Van de Pol et al., 2010, 2015, and 2019) and entails both a supportive structure and the collaborative construction jointly carried out.. According to Jafarigohar and Mortazavi (2017), a learner's metacognition can greatly increase through combining structuring and problematizing scaffolding mechanisms. However, there is a scarcity of experimental studies in the classroom context on the effects of teacher scaffolding (Kim & Hannafin, 2011; Van de Pol et al., 2010, 2012, 2015).

The key function in scaffolding is contingency, the degree of adaptive support, without which scaffolding might not occur (Oh, 2005; Mertzman, 2008; Meskill, 2005; Reigosa & Jimenez, 2007).

### *Contingency*

According to Van de Pol et al. (2015), scaffolding has three main constituents: contingency, the fading, and transfer of responsibility; contingency represents the type of adaptation a teacher makes in providing titrated support, which is calibrated to fit the instruction within the learner's present ability. Johnson, Mikita, Rodgers, and D'Agostino, (2020) reported that by contingent scaffolding, teachers' instructions could pave the way for the success of their learners in reading comprehension. As Van de Pol et al. (2019) claim, contingent support and its timely fading are shown to lead to learner success of in-taking teacher's instruction. Therefore, the key function in scaffolding is contingency, the degree of adaptive support, without which scaffolding cannot transpire (Mertzman, 2008; Meskill, 2005; Oh, 2005; Reigosa & Jimenez, 2007). Hermkes et al. (2018) used a valid methodology to detect central points in the teacher's support leading to contingent or non-contingent scaffolding.

Therefore, for scaffolding to take place, contingency is a precondition and contingent scaffolding bears prolific learning results based on the research conducted in this regard; self-regulation, for instance, is an attainable construct that can be gained through contingent teaching.

### *Self-regulation*

Self-regulation originated from the field of educational psychology and has been studied through a myriad of theoretical perspectives since the 1980s (de la Fuente-Arias, 2017). Self-regulation can be defined in terms of the degree of active participation in one's learning which depicts a more dynamic nature than learning strategies and highlights an individual's own "strategic efforts to manage their achievement through specific beliefs and processes" (Zimmerman & Risemberg, 1997, p. 105). In the last decade, different models have been proposed and a set of questionnaires developed to assess this concept (Artuch-Garde et al., 2017; Dündar & Köksal, 2017; Oxford, 2017; Salehi & Jafari, 2015). Some researchers (e.g., Oxford, 2011) have combined strategies and self-regulation as complementary constructs and others (Rose, Briggs, Boggs, Sergio, & Ivanova-Slavianskaia, 2018) have applied the notion of self-regulation as an alternative paradigm.

### *Willingness to Communicate (WTC)*

Willingness to Communicate (WTC) lends itself to linguistic, psychological, and social factors (Macintyre et al., 1998) and according to Macintyre and Charos (1996), WTC is a motivating factor in the frequency of communication in second language context; therefore, the interaction between both situational and enduring influences affect it. Quantitative studies have shown that WTC in second language context is affected by linguistic self-confidence (Ghonsooly et al., 2012; Peng & Woodrow, 2010), communicative competence (Macintyre et al., 2002; Yashima, 2002), attitudes toward the international community (Ghonsooly et al., 2012), motivation (Mune-zane, 2016); and the learning experience they gained (Khajavy et al., 2016; Peng, 2012; Peng & Woodrow, 2010), just to mention a few. Some qualitative studies have focused on the context of learning showing that WTC may sway from one point of an axis to another not staying stable and depending on culture (Peng, 2012), topic and time (Cao, 2014), security (Kang, 2005), a feeling of being responsible for their learning (Kang, 2005), and more importantly, the interlocutors and context (Cao, 2014; Cao & Philp, 2006).

### ***The link between WTC and SR***

By self-regulating themselves, the EFL learners can actively take part in their learning and seek opportunities to engage in classroom conversation; this can affect their tendency to interact or gain WTC. Furthermore, various studies give testimonies of the positive correlation between WTC and self-regulation (Heidari Soureshjani's, 2013; Nosratinia & Deris, 2015) and that the development of the latter can be considered a significant measure to develop WTC among EFL learners (Nosratinia & Deris, 2015), improving their speaking and reading abilities (Aregu, 2013; Arkavazi & Nosratinia, 2018; Taherkhani & Moradi, 2020).

Contingent teaching, as a prerequisite for scaffolding, has gained attention in the last two decades (Van de Pol et al., 2012, 2014, 2016, 2019). A model and a framework have been established and employed by Van de Pol (2012) and Wood (2003), respectively, to contingently scaffold young learners in instructing content matter. Nevertheless, never has any of these two models or a conflation of them been used simultaneously to teach languages; whereas content matter, especially math and social sciences, has often been good candidates. Furthermore, child learning was formerly considered rather than adult learning. Indeed, when it comes to adult education, many adult English learners drop out of language schools, feeling they need more help from their teachers while they fail to provide such support. Additionally, contingency application has been rare in the classroom context due to the difficulty in performing it (Van de Pol et al., 2012, 2014) accompanied by a paucity of experimental studies in classroom context on the effects of teacher scaffolding (Kim & Hannafin, 2011; Van de Pol et al., 2010, 2012, 2015). Correspondingly, seldom have teacher-student interactions been considered, whereas small group interactions have generally been taken into account. The MCT and CSF are complementary since the first model taps in different steps in contingency and emphasizes intervention strategies, whereas the second model proposes accounts of how teachers adapt their instruction to respond to students' actions.

Therefore, to scaffold adult language learners in an EFL context contingently, this study sought to utilize a symbiosis of the MCT and CSF, for a variety of purposes; first, to consider the interactive nature of scaffolding both qualitatively and quantitatively. Second, to tap into the one-to-one teacher-student interactions where the teacher was fully aware of the status of the learner and could adapt their instruction. Third, to take into account adult language learners as compared to studies carried out in this field focusing on secondary education at schools. Fourth and perhaps most importantly, to examine how this symbiosis and the procedures taken in the EFL context could help learners gain self-regulation and willingness to communicate. Consequently, the present study strived to investigate the following research questions:

1. Does the symbiosis of the MCT and the CSF affect the willingness to communicate of the adult elementary and advanced EFL learners significantly?
2. Does the symbiosis of the MCT and the CSF affect the self-regulation of the adult elementary and advanced learners significantly?
3. What proportion of the MCT and the CSF are employed in this symbiosis?
4. What intervention strategies are employed in the MCT at the adult elementary and advanced levels?

## Method

The design of the present study was a quasi-experimental, pre-test, and post-test design since the randomization process of choosing the participants was not feasible due to some constraints. This was carried out for the quantitative measurement of the study; for the qualitative perspective, the teacher's control was assessed through their manipulation of control by the subsequent moves they took in the CSF.

### Participants

For this study to be conducted, 15 elementary and 15 advanced English classes were selected from a prestigious language School (North-West Iran), each sitting 12 learners. A total number of 360 (male and female students, aged 18 to 33, ( $M = 26.50$ ,  $SD = 5.91$ ), 180 elementary and 180 advanced, participated in this study, who had taken the Oxford Placement Test (OPT, 2019) and filled out a written consent form before taking part in this study. Thirty teachers were each assigned to teach these classes based on the two models proposed through a teacher training program.

### Materials and Instrument

Learners were placed in two general groups of elementary and advanced levels based on the OPT the institute had administered. The first group studied the *American file book 1*, 2<sup>nd</sup> edition (Latham-Koenig, 2013), while the latter, having studied the whole series started the *CAE Result* book (Davies et al., 2008). The course books were communicative, encouraging class collaboration and exchange of ideas. Furthermore, the MCT and CSF were utilized in conducting the classes. In addition, the Self-Regulation Questionnaire (SQR) by Hirata (2010) and the Willingness to Communicate Questionnaire (WTCQ) by McCroskey and Richmond (2013), were employed. All the classes were recorded by the cameras mounted in each class. The SPSS 23<sup>rd</sup> software was utilized to analyze the data.

### Data Collection Procedure

Before the classes started, every teacher took a teacher training course for 3 months, which included 2 phases. The first phase of the teacher training process lasted for 10 sessions, each session running for 2 hours, incorporating three teams of teachers to be trained for 20 hours. Here, a professional teacher trainer acquainted the teachers with the scaffolding mechanisms, contingency, and the two models used in this study. The participating teachers practiced the MCT and CSF together interactively and asked for clarification when necessary. A symbiosis of these two models at the time of the instruction was of paramount importance and the main focus of this study. Once the participants fully grasped the concepts and the procedures of using the models in the 20 hours of training, they were invited to take part in the second phase.

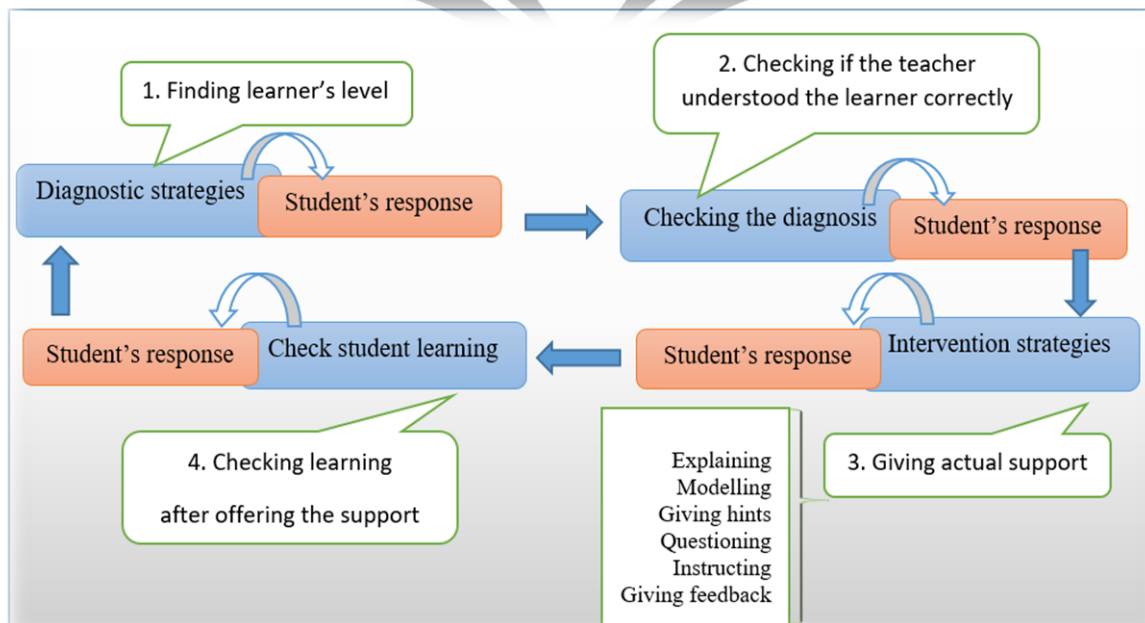
In the second phase, 5 sessions were held, each lasting 2 hours, where the teachers were grouped into two categories of elementary and advanced teams. Here, the concepts of self-regulation and willingness to communicate were put forward. All the training sessions were video-recorded so that the teachers could provide feedback for their colleagues' performance. Once the teacher training course was over, the 30 teachers were each assigned to teach a class of 12 learners interactively based on the MCT and CSF, following the term program they were given. Teachers' oral and written feedback on the course were also considered for future research.

As the actual classes commenced, two sets of questionnaires were administered to assess the self-regulation and WTC in both levels to communicate. Once the answers were given to both questionnaires, the class procedure started. In effect, 360 self-regulation and 360 WTC questionnaires were distributed and later collected. In the final session of the course, the same questionnaires were once more administered and 360 self-regulation and 360 WTC questionnaires were distributed and later collected. A total number of 1440 questionnaires were distributed and collected.

### ***Model of Contingent Teaching (MCT)***

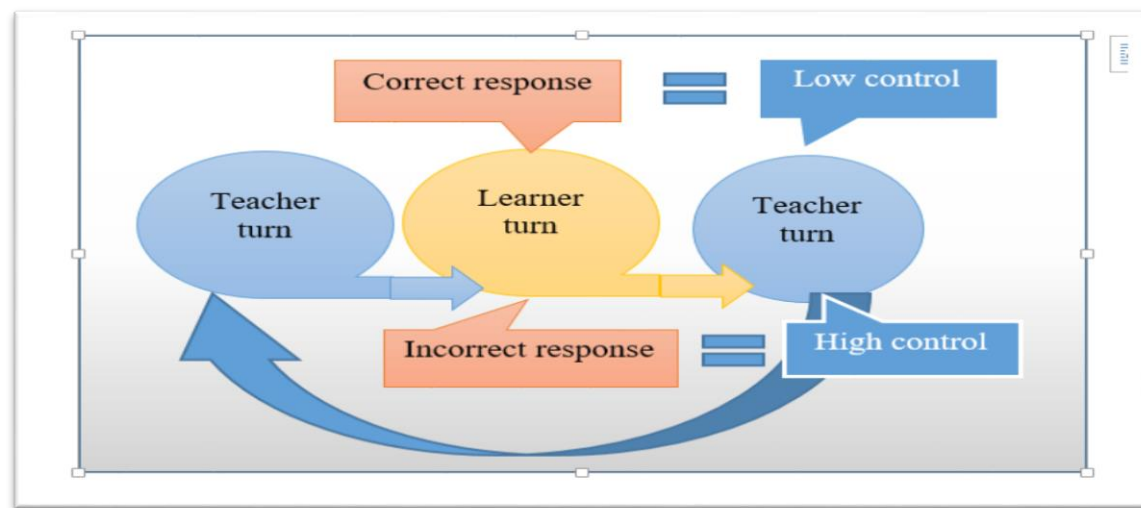
In the MCT, there is a 4-step teacher-student-turn interaction initiated by the teacher, followed by the learner response (Figure 1); the teacher uses diagnostic strategies to find out where a learner needs help and elicits learner response. Based on the response given, the teacher again checks this diagnosis and awaits the learner's response while interacting with them. Then, through intervention strategies, the teacher scaffolds the learner. Some intervention strategies are employed. In case the steps are followed appropriately, the contingent teaching takes place, if not, the fragment (4-turn interactions) is non-contingent. Non-contingent fragments can occur by not eliciting a response or not employing the right strategies when a response is given.

**Figure 1** *Model of Contingent Teaching (MCT) and its Components by Van de Pol (2012)*



### ***The Contingent Shift Framework (CSF)***

The concept of contingency is further specified by Wood (2003) by focusing on the degree of control that teacher's support exerts on the learner. The increase or decrease of control is based on learner success or failure and the resultant support is coded as contingent. In this framework, there is a three-turn interaction between the teacher and the learner, where the teacher initiates the interaction and elicits a response; if the given response is correct, the teacher exerts no control on the third turn. However, if the response is incorrect, the teacher increases control to encourage the learner to put more effort into their response. This cyclic turn continues until the desired response is elicited (Figure 2).

**Figure 2** *The Contingent Shift Framework by Wood (2003)*

### Five Steps of the Data Gathering

The data collected from this study were gathered in 5 steps: First, all the classes were recorded; however, for the feasibility of managing the data, only two sessions from every class were randomly chosen for the final analysis. Second, these two selected sessions, lasting 90 minutes, were transcribed. Third, class utterances were categorized into fragments related to each model utilized and later, were coded as MCT or CSF, and any utterance occurring out of the scope of the two models was excluded. In the fourth step, the non-contingent fragments were excluded and only the contingent ones were to be further analyzed. In the fifth step, the contingent MCT or CSF fragments were further analyzed for their frequency of use and the type of intervention strategies employed.

### Results

The present study strived to combine two contingency models to realize whether this conflation could lead to willingness to communicate and self-regulation in elementary and advanced levels in adults. For this purpose, the WTC and self-regulation were assessed utilizing two questionnaires, whose pre and post-tests results were analyzed through the SPSS 23<sup>rd</sup>.

To compare the results of the pre and post-tests of WTC in both elementary and advanced levels, the Wilcoxon Signed Ranks and the Paired-Sample t-test were used, respectively. According to Table 1, a significant difference,  $z = -9.938$ ,  $p = 0.00$ , was observed concerning the WTC variable between the results of the pre and post-tests for the elementary levels.

**Table 1** *The Wilcoxon Signed Ranks Test: the Pre and Post-tests of WTC for the Elementary Levels.*

WTC	Post WTC – Pre
Z	-9.938 <sup>b</sup>
Asymp. Sig. (2-tailed)	.000
Exact Sig. (2-tailed)	.000
Exact Sig. (1-tailed)	.000
a. Wilcoxon Signed Ranks Test	
b. Based on negative ranks.	

Furthermore, there was a significant difference,  $M = -2.836$ ,  $SD = 5.861$ ,  $t = -6.491$ ,  $p = 0.00$ , between the pre and post-tests of the WTC variable for the advanced levels, shown in Table 2.

**Table 2** *The Paired Samples T-test: the Pre and Post-tests of WTC for the Advanced Levels.*

	Paired Differences			T	Df	Sig. (2-tailed)
	Mean	Std. Deviation	STD. Error Mean			
Pre WTC	-2.836	5.861	.436	-6.49	149	0.000
Post WTC				1		

To compare the results of the pre and post-tests of self-regulation in both elementary and advanced levels, the Wilcoxon Signed Ranks) and the Paired-Samples t-test were employed, respectively.

According to Table 3, there was a significant difference,  $z = -9.562$ ,  $-p = 0.00$ , between the results of the pre and post-tests of self-regulation at the elementary levels based on the Wilcoxon Signed Ranks Test.

**Table 3** *The Wilcoxon Signed Ranks Test: the Pre and Post-tests of Self-Regulation for the Elementary Levels*

	Post-Self-Regulation Pre Self-Regulation
Z	-9.562 <sup>b</sup>
Asymp. Sig. (2-tailed)	.000
Exact Sig. (2-tailed)	.000
Exact Sig. (1-tailed)	.000
Point Probability	.000
a. Wilcoxon Signed Ranks Test	
b. Based on negative ranks.	

Furthermore, as Table 4 depicts, there was a significant difference,  $M = -9.355$ ,  $SD = 14.2.8$ ,  $t = -8.834$ ,  $df = 179$ ,  $p = 0.00$ , concerning the results associated with the pre and post-tests of self-regulation in the advanced levels, carried out through the Paired Sample t-test. Table 3 and Table 4 address the second research question.

**Table 4** *The Paired Sample Test: the Pre and Post-tests of Self-Regulation for the Advanced Levels.*

	Mean	Std. Deviation	STD. Error Mean	t	df	Sig. (2-tailed)
Pre Self-regulation	-9.35556	14.20859	1.05905	-8.834	179	.000
Post Self-regulation						

Concerning the proportion of the models utilized in the third research question, (Tables 6 and 7; Tables 9 and 10), it can be said that the two sets of contingent fragments for both models at the elementary levels were identified, which are depicted in Table 5 and Table 6.

**Table 5** *The MCT and the CSF Fragments for the Elementary levels*

Elementary Classes	Duration (minutes)	Utterances (number of)	MCT fragments (number of)	CSF Fragments (number of)
class 1	95	210	8	21
class 2	94	251	13	21
class 3	90	160	6	27
class 4	92	185	9	20
class 5	100	171	5	27
class 6	90	195	4	44
class 7	90	220	9	35
class 8	100	182	4	18
class 9	90	153	1	37
class 10	85	170	14	8
class 11	85	195	9	18
class 12	95	166	5	28
class 13	90	235	10	40
class 14	90	214	10	32
class 15	95	221	3	51
<b>Total</b>	....	....	110	42

As Table 5 shows, the lowest class duration was 85 min, while the highest was 100 min. The lowest and highest number of utterances were 153 and 251, respectively. On the whole, there were 110 fragments for the MCT and 427 fragments for the CSF. Table 6 shows the mean and the standard deviation for the MCT and CSF at elementary levels.

**Table 6** *Descriptive Statistics for the MCT and CSF Fragments for the Elementary Levels*

	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
<b>CSF</b>	15	28.4667	11.45093	2.95662
<b>MCT</b>	15	7.3333	3.71612	.95950

Table 6, presents the results of the MCT,  $N = 15$ ,  $M = 7.33$ ,  $SD = 3.71$ , and the CSF,  $N = 15$ ,  $M = 28.46$ ,  $SD = 11.45$ , for the elementary levels.

According to the results of the data analysis conducted through the One-Sample T-test, there was a significant difference, CSF  $t = 9.62$ ,  $df = 14$ ,  $MD = 28.46$   $p = 0.00$ ; MCT  $t = 7.64$ ,  $df = 14$ ,  $MD = 7.33$ ,  $p = 0.00$  between the CSF and MCT employed at the elementary levels, as shown in Table 7.

**Table 7** *One-Sample T-Test: Comparing the MCT and CSF in the Elementary Levels*

	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>	<i>Mean Difference</i>	<i>95% Confidence Interval</i>	
					Lower	Upper
CSF	9.628	14	.000	28.46667	22.1254	34.8080
MCT	7.643	14	.000	7.33333	5.2754	9.3913

Later, the combination of the MCT and the CSF in the advanced classes was organized into the number of classes, utterances, and fragments, as shown in Table 8.

**Table 8** *The MCT and the CSF Fragments for the Advanced levels*

Advanced Classes	Duration (minutes)	Utterances (number of)	MCT fragments (number of)	CSF Fragments (number of)
class 1	95	250	10	18
class 2	90	231	11	20
class 3	90	200	9	25
class 4	90	221	6	27
class 5	100	195	6	31
class 6	95	266	5	20
class 7	90	197	5	20
class 8	95	214	4	16
class 9	100	200	5	30
class 10	115	150	2	16
class 11	85	140	3	19
class 12	85	240	4	7
class 13	90	260	7	20
class 14	90	196	5	31
class 15	90	205	10	15
Total			92	315

As Table 8 exhibits, the lowest and the highest class duration were 85 min and 115 min, respectively. Besides, the lowest and highest number of utterances were 140 and 266, respectively. There were 92 fragments for the MCT and 315 fragments for the CSF.

**Table 9** *Descriptive Statistics for the MCT and CSF Fragments for the Advanced Levels*

	N	Mean	Std. Deviation	Std. Error Mean
CSF	15	21.8000	6.22438	1.60713
MCT	15	6.1333	2.72204	.70283

Table 9 depicts the descriptive statistics for the MCT,  $N = 15$ ,  $M = 21.80$ ,  $SD = 6.22$  and the CSF,  $N = 15$ ,  $M = 6.13$ ,  $SD = 2.76$ .

Table 10 presents the data analysis conducted through the One-Sampled t-test to compare the MCT and CSF at the advanced levels. As depicted, there was a significant difference, CSF  $t = 13.56$ ,  $df = 14$ ,  $MD = 21.80$ ,  $p = 0.00$ ; MCT  $t = 8.72$ ,  $df = 14$ ,  $MD = 6.13$ ,  $p = 0.00$ , between the two models employed.

**Table 10** *One-Sampled T-Test: the MCT and CSF in Advanced Levels*

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval	
Interval					Lower	Upper
CSF	13.565	14	.000	21.80000	18.3531	25.2469
MCT	8.727	14	.000	6.13333	4.6259	7.6408

Below, Table 11 displays the intervention strategies utilized in the MCT. There were 110 and 92 MCT fragments for the elementary and advanced levels, respectively. Each fragment included one type of strategy shown in Table 11 and Figure 3, addressing the fourth research question.

**Table 11** *Intervention Strategies Employed at Elementary and Advanced Levels*

		<b>Groups</b>		<b>Total</b>
		<b>Elementary</b>	<b>Advanced</b>	
<b>Feedback</b>	Count	11 <sub>a</sub>	14 <sub>a</sub>	25
	% within	44.0%	56.0%	100.0%
	Strategies			
<b>Hints</b>	Count	3 <sub>a</sub>	20 <sub>b</sub>	23
	% within	13.0%	87.0%	100.0%
	Strategies			
<b>Instructing</b>	Count	29 <sub>a</sub>	8 <sub>b</sub>	37
	% within	78.4%	21.6%	100.0%
	Strategies			
<b>Explaining</b>	Count	21 <sub>a</sub>	17 <sub>a</sub>	38
	% within	55.3%	44.7%	100.0%
	Strategies			
<b>Modeling</b>	Count	15 <sub>a</sub>	7 <sub>a</sub>	22
	% within	68.2%	31.8%	100.0%
	Strategies			
<b>Questioning</b>	Count	31 <sub>a</sub>	26 <sub>a</sub>	57
	% within	54.4%	45.6%	100.0%
	Strategies			
<b>Total</b>	Count	110	92	202
	% within	54.5%	45.5%	100.0%
	Strategies			

*Each subscript letter denotes a subset of Groups categories whose column proportions do not differ significantly from each other at the .05 level.*

According to Table 11, the highly used intervention strategy was questioning in both levels. The second highly used strategies were instructing and hints in the elementary and advanced levels, respectively. In contrast, the least frequently applied strategies for the elementary and advanced levels were hints and modeling, respectively, as illustrated in Figure 5.

The results of the chi-square showed that the strategies employed in the two levels significantly differed ( $p = 0.00$ ) from each other, as presented in Table 12.

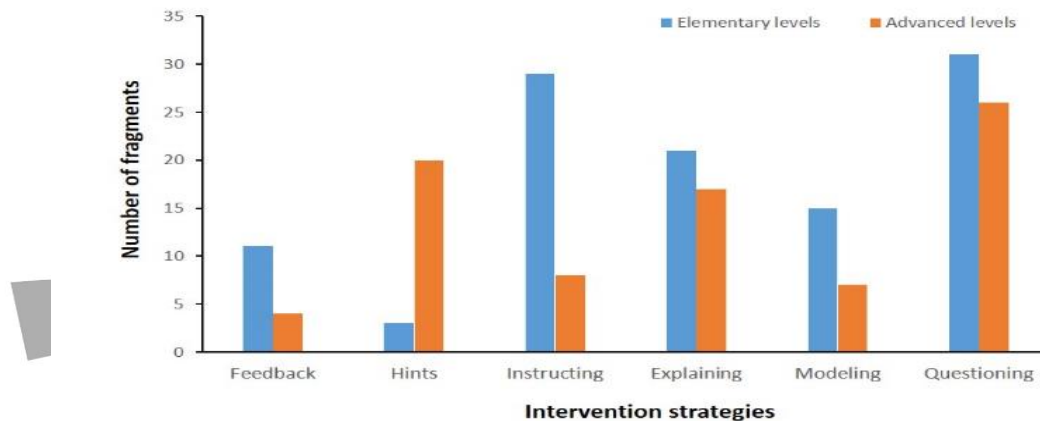
**Table 12** *The results of the Chi-square Test for the Intervention Strategies*

	<b>Value</b>	<b>Df</b>	<b>Asymptotic Significance (2-sided)</b>
Pearson Chi-Square	27.225 <sup>a</sup>	5	.000
Likelihood Ratio	29.325	5	.000
Linear-by-Linear Association	2.935	1	.087
N of Valid Cases	202		

*a. 0 cells (0.0%) have an expected count less than 5. The minimum expected count is 10.02.*

As shown in Figure 3, at the elementary levels, the first and second highly used strategies were questioning,  $N = 31$ , and instructing,  $N = 29$ , while explaining,  $N = 21$ , and modeling,  $N = 15$ , were the third and fourth ones. The penultimate favorite strategy was feedback,  $N = 11$ , while hints,  $N = 3$ , were the least used strategies. However, the penultimate and least used strategies employed at the advanced levels were modeling,  $N = 14$ , and feedback,  $N = 7$ , respectively. The first, second, and third popular strategies were questioning,  $N = 26$ , hints,  $N = 20$ , and explaining  $N = 17$ . Instructing and hints were differently used at both levels.

**Figure 3** *Intervention Strategies Employed at Elementary and Advanced Levels*



### Discussion

The present study was conducted considering four research questions. The first research question addressed the effect of the conflation of the MCT and CSF on the willingness to communicate of the learners at the elementary and advanced levels. According to the results, there was a significant difference in the results of the pre and post-tests concerning the WTC at both the elementary ( $p = 0.00$ ) and advanced levels ( $p = 0.00$ ). Since contingent scaffolding entails leveled support for a learner's ability threshold, an inclination for communication can be triggered and continued in both an elementary learner who has a weak command of English and advanced ones who can more confidently manipulate the language at their service. Furthermore, what usually hinders learners from communicating with each other in class is that in many language classes despite placement tests, learners with different language skill abilities participate in one class, where the ones with more confidence might take the floor. This might be threatening for the learners who need more teacher help and thus prefer to keep silent because interlocutors and context (Cao, 2014; Cao & Philp, 2006) play an important role. However, with contingent support, all learners will have an equal opportunity to commence conversations and thus communicate with their peers. The obtained results show significant improvement regarding willingness to communicate in both elementary and advanced levels.

The results lend support to findings by Van de Pol et al. (2012, 2013, 2019), according to whom, the mixture of the two models can lead to prolific results in teaching since a sense of security and responsiveness makes the learner feel confident and zealous to take part in class interactions. Additionally, according to Vongsila and Reinders (2016), learners develop WTC using a set of strategies like the ones exploited in the MCT, in the scaffolding stage.

Furthermore, our findings are in line with the claim that the strategies utilized in foreign language learning, as the intervention strategies of the MCT, can serve as effective means to help advanced learners communicate willingly in authentic yet friendly settings, according to Ayedoun et al. (2019). Therefore, it can be concluded that this combination could increase the willingness of learners to communicate at both levels.

The second question revolved around the effect of such symbiosis on the self-regulation of the learners concerning the two levels. The obtained results imply that the two mentioned models can contingently scaffold elementary learners in encouraging them to take active participation in their own learning from the very beginning. This can reassure them that proper teaching cycles that take learner current levels into account accompanied with intervening strategies can open up opportunities not only for regulating themselves but also to manage and take responsibility for their learning, which is the third phase of a successful scaffolding mechanism. Therefore, in this study, the MCT and the CSF helped the learners get instructed individually based on their current level of understanding and received feedback through strategies and the teacher's manipulation of control. The results are in line with Van de Pol et al.'s. (2019) findings according to which contingent scaffolding paves the way to self-regulation. In addition, the findings are consistent with the tenet of the developmental theory and the social constructivist theory, where contingent scaffolding is a powerful force to direct learners towards independence and self-regulation. Furthermore, according to Tseng et al. (2006), strategies in learning a language could be supplanted with the term self-regulation. Furthermore, our results agreed well with the findings by Rose et al., (2018), claiming that self-regulation is an alternative paradigm for strategies in language learning.

The third research question examined the proportion of the models utilized. Utilizing the CSF was more convenient and feasible for the teachers in qualitatively observing their learners in both levels of proficiency because of short cycles. The results of our study cannot be matched to any research item yet since there is a paucity of scaffolding practice using these models simultaneously.

The fourth research question addressed the intervention strategies employed at both elementary and advanced levels. Questioning, instructing and explaining were the highly used strategies at the elementary levels, while questioning, hints, and explaining were highly used at the advanced levels. Questioning and explaining were two frequently used intervention strategies at both levels to elicit the learner's response in the MCT since most teacher-learner interactions took place through forming questions or providing explanations both for introducing the new concepts and answering the learners' questions; however, their lexical and grammatical level differed in the two proficiency levels. Nevertheless, at the advanced levels, instructions lent themselves to hints as the learners' command of English was better. According to Figure 3 above, the intervention strategies at the elementary levels were in general higher than the ones at the advanced levels. The results of our study are inconsistent with Silliman et al. (2000), Lee (2001), Smith (2006), Hmelo-Silver et al. (2007), Yelland and Masters (2007), Miller (2012), Beers and Probst (2017), and Johnson et al. (2020), who considered modeling as a highly employed strategy of scaffolding; however, what is of paramount importance is the effectiveness of strategies in language teaching and learning according to Oxford (2011, 2017).

This study had its limitations; gender effects were not considered and only two sessions from each class were selected randomly, excluding the first and last sessions. Furthermore, due to the outbreak of the Covid 19, all the learners and the teachers wore face masks making it difficult to spot facial expressions and lip-read during the sessions in cases where the interactions were not audible. Despite such limitations, these results suggest some practical implications; first of all, for scaffolding EFL learners in different proficiency levels the teachers must level their instruction and account for contingency, which is the first important phase of supporting the learners. Second, this support needs to gradually fade away to, third, create room for learner independence. These tenets are achievable through the MCT and the CSF which not only individualize learning but also provide opportunities for the learners to regulate their learning and gain a tendency to communicate in the classroom context.

### Conclusion

Based on the findings of this study, employing the MCT and CSF could lead to a willingness to communicate accompanied by self-regulation at both elementary and advanced levels. Furthermore, the CSF was utilized more often than the MCT at both levels due to the feasibility of using it. Moreover, a set of intervening strategies like questioning, explaining, and instructing were implemented.

The results of this study could open up an opportunity for language practitioners, program and curriculum developers along with researchers in this realm to make use of at least one of the mentioned models as an incentive to achieve higher goals accompanied by progress in language learning. Learning knows no boundaries and inexhaustible results can be gained when teachers become aware of their learners' needs in level adaptation and due assistance - not under-scaffolding and not over-scaffolding- so that a sense of security and a penchant to get involved in the class interactions could be built through practical approaches.

Nevertheless, more research is called in and various proficiencies need to be considered. Learner strategies could be added to widen the scope of the MCT and engage learners even more. Future studies and wide scope perspectives are needed to delve into the models and consider different proficiency levels and perhaps investigate the impact of these contingent models on an extensive range of variables such as metacognition, language skills, thinking time, etc. It is hoped that this study could pave the way for other researchers and language teachers to contingently scaffold their learners.

## References

- Aregu, B. B. (2013). Self-efficacy, self-esteem and gender as determinants of performance in speaking tasks. *Journal of Media and Communication Studies*, 5(6), 64-71. DOI: 10.5897/JMCS2013. 0366.
- Arkavazi, S., & Nosratinia, M. (2018). Self-regulation and Locus of Control Predicting EFL Learners' Willingness to Communicate. ISSN 1799-2591. *Theory and Practice in Language Studies*, Vol. 8, No. 8, pp. 1094-1103, August 2018. DOI: <http://dx.doi.org/10.17507/tpls.0808.26>
- Artuch-Garde, R., González-Torres, M. d. C., de la Fuente, J., Vera, M. M., Fernández-Cabezas, M., & López-García, M. (2017). Relationship between resilience and self-regulation: a study of Spanish youth at risk of social exclusion. *Frontiers in Psychology*, 8, 612. doi:10.3389/fpsyg.2017.00612
- Ayedoun, E., Hayashi, Y., & Seta, K. (2019). Adding communicative and affective strategies to an embodied conversational agent to enhance second language learners' willingness to communicate. *International Journal of Artificial Intelligence in Education*, 29(1), 29-57. <https://doi.org/10.1007/s40593-018-0171-6>
- Beers, K., & Probst, R. E. (2017). *Disrupting thinking: Why how we read matters*: Scholastic New York, NY.
- Cao, Y. (2014). A sociocognitive perspective on second language classroom willingness to communicate. *Tesol Quarterly*, 48(4), 789-814. <https://doi.org/10.1002/tesq.155>
- Cao, Y., & Philp, J. (2006). Interactional context and willingness to communicate: A comparison of behavior in whole class, group and dyadic interaction. *System*, 34(4), 480-493. DOI:10.1016/j.system.2006.05.002
- Davis, E. A. & Miyake, N. (2004). Explorations of scaffolding in complex classroom systems. *Journal of the Learning Sciences*, 75, p. 265-272 [https://doi.org/10.1207/s15327809jls1303\\_1](https://doi.org/10.1207/s15327809jls1303_1)
- de la Fuente-Arias, J. (2017). Theory of self-vs. externally-regulated learningTM: fundamentals, evidence, and applicability. *Frontiers in Psychology*, 8, 1675. <https://doi.org/10.3389/fpsyg.2017.01675>
- Ghonsooly, B., Khajavy, G. H., & Asadpour, S. F. (2012). Willingness to communicate in English among Iranian non-English major university students. *Journal of Language and Social Psychology*, 31(2), 197-211. DOI:10.1177/0261927X12438538
- Heidari Soureshjani, K. (2013). A study of the effect of self-regulation and the degree of willingness to communicate on oral presentation performance of EFL learners. *International Journal of Language Learning and Applied Linguistics World*, 4(4), 166-177
- Hirata, A. (2010). *An exploratory study of motivation and self-regulated learning in second language acquisition: Kanji learning as a task focused approach: a thesis presented in fulfilment of the requirements for the degree of Master in Second Language Teaching at Massey University, Manawatu, New Zealand*. Massey University. <http://hdl.handle.net/10179/1527>
- Hmelo-Silver, C. E., Duncan, R. G., & Chinn, C. A. (2007). Scaffolding and achievement in problem-based and inquiry learning: a response to Kirschner, Sweller, and. *Educational Psychologist*, 42(2), 99-107. <https://doi.org/10.1080/00461520701263368>
- Jafarigohar, M., & Mortazavi, M. (2017). The impact of scaffolding mechanisms on EFL learners' individual and socially shared metacognition in writing. *Reading & Writing Quarterly*, 33(3), 211-225. <https://doi.org/10.1080/10573569.2016.1154488>
- Johnson, T., Mikita, C., Rodgers, E., & D'Agostino, J. V. (2020). Scaffolding Self- Correction During Oral Reading. *The Reading Teacher*, 73(6), 796-799. <https://doi.org/10.1002/trtr.1896>
- Kang, S.-J. (2005). Dynamic emergence of situational willingness to communicate in a second language. *System*, 33(2), 277-292. DOI:10.1016/j.system.2004.10.004
- Khajavy, G. H., Ghonsooly, B., Hosseini Fatemi, A., & Choi, C. W. (2016). Willingness to communicate in English: A microsystem model in the Iranian EFL classroom context. *Tesol Quarterly*, 50(1), 154-180. <https://doi.org/10.1002/tesq.204>

- Kim, M. C., & Hannafin, M. J. (2011). Scaffolding problem solving in technology-enhanced learning environments (TELEs): Bridging research and theory with practice. *Computers & Education*, 56(2), 403-417. <http://dx.doi.org/10.1016/j.compedu.2010.08.024>
- KÖKSAL, D., & DÜNDAR, S. (2018). Developing a scale for self-regulated L2 learning strategy use. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 33(2), 337-352. doi: 10.16986/HUJE.2017033805
- Latham-Koenig, C. (2013). *American file book 1*: Oxford University Press.
- Lee, C. D. (2001). Is October Brown Chinese? A cultural modeling activity system for underachieving students. *American educational research journal*, 38(1), 97-141. <https://doi.org/10.3102/00028312038001097>
- MacIntyre, P. D., Baker, S. C., Clément, R., & Donovan, L. A. (2002). Sex and age effects on willingness to communicate, anxiety, perceived competence, and L2 motivation among junior high school French immersion students. *Language Learning*, 52(3), 537-564.
- MacIntyre, P. D., & Charos, C. (1996). Personality, attitudes, and affect as predictors of second language communication. *Journal of Language and Social Psychology*, 15(1), 3-26.
- MacIntyre, P. D., Clément, R., Dörnyei, Z., & Noels, K. A. (1998). Conceptualizing willingness to communicate in a L2: A situational model of L2 confidence and affiliation. *The Modern Language Journal*, 82(4), 545-562.
- McCroskey, J., & Richmond, V. (2013). Willingness to communicate (WTC). Measurement instrument database for the social science. Retrieved from. <http://dx.doi.org/10.13072/midss.511>
- Mertzman, T. (2008). Individualizing scaffolding: teachers' literacy interruptions of ethnic minority students and students from low socioeconomic backgrounds. *Journal of Research in Reading*, 31(2), 183-202. <https://doi.org/10.1111/j.1467-9817.2007.00356.x>
- Meskill, C. (2005). Triadic scaffolds: Tools for teaching English language learners with computers. *Language Learning & Technology*, 9(1), 46-59.
- Miller, D. (2012). *Reading with Meaning, 2nd edition: Teaching Comprehension in the Primary Grades* (2 ed.): Stenhouse Publishers.
- Munozane, Y. (2016). Motivation, ideal self and willingness to communicate as the predictors of observed L2 use in the classroom. *EUROSLA Yearbook*, 16(1), 85-115. <https://doi.org/10.1075/eurosla.16.04mun>
- Nosratinia, M., & Deris, Z. (2015). An exploration into the relationship between EFL learners' self-regulation and willingness to communicate. *Theory and practice in language studies*, 5(9), 1921-1928. DOI: <http://dx.doi.org/10.17507/tpls.0509.22>
- Oh, P. S. (2005). Discursive roles of the teacher during class sessions for students presenting their science investigations. *International Journal of Science Education*, 27(15), 1825-1851. <https://doi.org/10.1080/09500690500239714>
- Oxford, R. (2013). Teaching and researching: Language learning strategies. *Teaching and Researching: Language Learning Strategies*, 1-342. doi:10.4324/9781315838816
- Oxford, R. L. (2016). *Teaching and researching language learning strategies: Self-regulation in context*: Taylor & Francis. <https://doi.org/10.4324/9781315719146>
- Oxford University Press. (2019). University of Cambridge., & Association of Language Testers in Asia. <https://elt.oup.com/?cc=ir&selLanguage=en>
- Paul A. Davies, T. F., Kathy Gude, Mary Stephens. (2008). *CAE Result: Student's Book (Cambridge Advanced English (Cae) Result) NEW STU Edition*: Oxford University Press.
- Peng, J.-E. (2012). Towards an ecological understanding of willingness to communicate in EFL classrooms in China. *System*, 40(2), 203-213. <https://doi.org/10.1016/j.system.2012.02.002>
- Peng, J. E., & Woodrow, L. (2010). Willingness to communicate in English: A model in the Chinese EFL classroom context. *Language Learning*, 60(4), 834-876. <https://doi.org/10.1111/j.1467-9922.2010.00576.x>

- Reigosa, C., & Jiménez- Aleixandre, M. P. (2007). Scaffolded problem- solving in the physics and chemistry laboratory: difficulties hindering students' assumption of responsibility. *International Journal of Science Education*, 29(3), 307-329. <https://doi.org/10.1080/09500690600702454>
- Robinson, P. J. (2013). *The Routledge encyclopedia of second language acquisition*: Routledge.
- Rose, H., Briggs, J. G., Boggs, J. A., Sergio, L., & Ivanova-Slavianskaia, N. (2018). A systematic review of language learner strategy research in the face of self-regulation. *System*, 72, 151-163. <https://doi.org/10.1016/j.system.2017.12.002>
- Salehi, M., & Jafari, H. (2015). Development and validation of an EFL self-regulated learning questionnaire. *Southern African Linguistics and Applied Language Studies*, 33(1), 63-79. DOI:10.2989/16073614.2015.1023503
- Silliman, E. R., Bahr, R., Beasman, J., & Wilkinson, L. C. (2000). Scaffolds for learning to read in an inclusion classroom. *Language, Speech, and Hearing Services in Schools*, 31(3), 265-279. DOI:10.1044/0161-1461.3103.265
- Smith, L. A. (2006). Think- aloud mysteries: Using structured, sentence- by- sentence text passages to teach comprehension strategies. *The Reading Teacher*, 59(8), 764-773. <https://doi.org/10.1598/RT.59.8.4>
- Taherkhani, R., & Moradi, R. (2020). Modeling the relationships among emotional intelligence, autonomy, self-regulation, willingness to communicate, and reading comprehension ability of Persian foreign language learners: Structural equation modeling. *Journal of Teaching Persian to Speakers of Other Languages* Vol. 9, No. 2 (Tome 20), Fall & Winter 2020. DOI: 10.30479/jtpsol.2021.13588.1486
- Tseng, W.-T., Dörnyei, Z., & Schmitt, N. (2006). A new approach to assessing strategic learning: The case of self-regulation in vocabulary acquisition. *Applied Linguistics*, 27(1), 78-102. DOI:10.1093/applin/ami046
- van de Pol, J., Mercer, N., & Volman, M. (2019). Scaffolding student understanding in small-group work: Students' uptake of teacher support in subsequent small-group interaction. *Journal of the Learning Sciences*, 28(2), 206-239. <https://doi.org/10.1080/10508406.2018.1522258>
- van de Pol, J., Volman, M., & Beishuizen, J. (2010). Scaffolding in teacher-student interaction: A decade of research. *Educational Psychology Review*, 22(3), 271-296. <https://doi.org/10.1007/s10648-010-9127-6>
- van de Pol, J., Volman, M., & Beishuizen, J. (2012). Promoting teacher scaffolding in small-group work: A contingency perspective. *Teaching and Teacher Education*, 28(2), 193-205. <https://doi.org/10.1016/j.tate.2011.09.009>
- van de Pol, J., Volman, M., Oort, F., & Beishuizen, J. (2014). Teacher scaffolding in small-group work: An intervention study. *Journal of the Learning Sciences*, 23(4), 600-650. <https://doi.org/10.1080/10508406.2013.805300>
- van de Pol, J., Volman, M., Oort, F., & Beishuizen, J. (2015). The effects of scaffolding in the classroom: support contingency and student independent working time in relation to student achievement, task effort and appreciation of support. *Instructional Science*, 43(5), 615-641. <https://doi.org/10.1007/s11251-015-9351-z>
- van de Pol, J., Mercer, N., & Volman, M. (2019). Scaffolding student understanding in small-group work: Students' uptake of teacher support in subsequent small-group interaction. *Journal of the Learning Sciences*, 28(2), 206-239. <https://doi.org/10.1080/10508406.2018.1522258>
- Vongsila, V., & Reinders, H. (2016). Making Asian learners talk: Encouraging willingness to communicate. *RELJ Journal*, 47(3), 331-347. <https://doi.org/10.1177/0033688216645641>
- Webb, S., Massey, D., Goggans, M., & Flajole, K. (2019). Thirty-Five Years of the Gradual Release of Responsibility: Scaffolding Toward Complex and Responsive Teaching. *The Reading Teacher*, 73(1), 75-83. <https://doi.org/10.1002/trtr.1799>
- Wood, D. (2003). The Why? What? When? and How? of Tutoring: The Development of Helping and Tutoring Skills in Children. *Literacy teaching and learning*, 7, 1-30. DOI:10.5539/jedp.v3n1p173

- Wood, D., Wood, H., & Middleton, D. (1978). An experimental evaluation of four face-to-face teaching strategies. *International Journal of Behavioral Development*, 1(2), 131–147. <https://doi.org/10.1177/016502547800100203>
- Yashima, T. (2002). Willingness to communicate in a second language: The Japanese EFL context. *The Modern Language Journal*, 86(1), 54-66. DOI:10.1111/1540-4781.00136
- Yelland, N., & Masters, J. (2007). Rethinking scaffolding in the information age. *Computers & Education*, 48(3), 362-382. <https://doi.org/10.1016/j.compedu.2005.01.010>
- Zimmerman, B. J., & Risemberg, R. (1997). Self-regulatory dimensions of academic learning and motivation *Handbook of academic learning* (pp. 105-125): Elsevier. DOI:10.1016/B978-012554255-5/50005-3

