Let’s Scaffold Elementary G1 Students Playing with English

Chou, Mei-Ju*, Chen, Ching-Chi

Early Childhood Education, Taiwan Shoufu University, Taiwan
Emeritus Professor, NKNU, Taiwan, R. O. C.

Abstract

This study aimed to investigate elementary school EFL teachers’ use of scaffolding strategies for enhancing EFL G1 students’ cognitive engagement, and to examine whether the teachers’ beliefs correspond to their strategy use. The main focuses of the study included: 1. the types of scaffolding strategies used by elementary English teachers to enhance EFL students’ cognitive engagement; 2. the usage of these scaffolding strategies; 3. the teachers’ beliefs in using these scaffolding strategies. From the literature review, the major findings of this study are as the following: 1. English teachers’ scaffolding strategies in different ways could help students to achieve different categories of cognitive engagement; 2. English teachers’ different beliefs of cognitive engagement played an important role in their use of scaffolding strategies; 3. English teachers could guide students to achieve different levels of cognitive engagement in class based on their beliefs; 4. EFL teachers’ perceptions of scaffolding are important for their role in assisting G1 pupils’ second language learning.

Keywords: Scaffolding Strategies, EFL Students, Cognitive Engagement, Teachers Beliefs.

1. Introduction

In modern early childhood education, language education has witnessed the importance of socio-cultural theory. Vygotsky(1978) claimed that learners’ higher order functions of the mind can be developed through the consistent interactions with environment, peers and other experienced human beings. With the assistance by more knowledgeable persons, young children’s learning takes place from teacher-led, peer-collaboration, other-regulated learning to independent learning. (DeVries, 2000). That is, during young children’s learning process, parents’ and teachers’ assistances or scaffoldings are necessary and important for young children’s learning, especially before they have the ability to solve the problems independently (Wood et al., 1976).
2. Establishment of research hypothesis and development of conceptual framework

2.1 Zone of Proximal Development

Vygotsky (1978) defines ZPD as the distance between the actual development level as determined by independent problem-solving and the level of potential development as determined by problem-solving under adult guidance or in collaboration with more knowledgeable peers. With the children’s interacting with people, objects, and events in the environment, the social interaction not only combines their experienced knowledge but also matures their thoughts and behaviors. In the beginning of language learning process, teachers guide children and gradually, children internalize what teachers have taught and become independent in learning. Therefore, in what way do teachers take a part in help young children’s meaning negotiation process or support their interaction to advance language learning experience becomes an important area for second language educators to explore.

2.2 Scaffolding

Vygotsky (1986) categorized cognitive development into real level of development and potential level of development. (Forman, 1994; DeVries, 2000) proposed that in addition to teacher-lead, peer-collaboration, peer-tutoring, and other-regulated Learning are helping developing children’s self-regulated learning. In teachers’ scaffolding young children, in addition to individual instruction, team work could be applied as well (Loto, 1997). With peers interaction and collaboration, young children’s socio-moral development and social interpersonal interaction could be elevated toward realizing young children’s interests, developing potential, and learning motivation. It shares the same characteristics with the modern constructivism, situated cognition, reciprocal teaching, self-regulated learning strategies. DeVries & Schaik, (1992) proposed that there are three level ability in which teachers could scaffold students. 1. Self Directed Ability: students learn how to choose different answer in different situations from the error-trial process. 2. Self Remedial Ability: students learn how to assess inner problem and solve problems. 3. Self Improvement Ability: students assess knowledge with learned concept and create new cognition. In accordance with the three abilities, some scholars (Pearson & Fielding, 1991; Wood, Bruner, & Rose, 1976) proposed that teachers should offer young children the problem solving ability. From the social-cultural perspective, scaffolding provides an understanding of teachers’ role in assisting students’ second language learning. In young children’s learning environment, scaffolding is what teachers say or do to enable children to complete complex mental tasks they could not achieve without assistance. Teachers assist students to organize the raw of new materials coming along with different settings through cognitive structures. In addition, some scholars indicated teachers believed that cognitive engagement was classified into three categories: 1. triggering and sustaining attention, 2. enhancing memory, and 3. initiating critical thinking. That is, teachers could use different scaffolding strategies to help the students achieve different categories of cognitive engagement. This study adopted Chen’s (2011) three dimensions of scaffolding strategies, including Verbal Communication, physical interaction, and Emotional Caring.

2.3 Teacher’s Beliefs and Goals for Scaffolding Second Language Learning

Most of studies focused on examining the relationship between language teachers’ strategies and second language acquisition, but only a few investigated the relationship between teachers’ strategies and beliefs. Earlier studies found that the patterns of teacher-student interaction reflected teachers’ certain pedagogical beliefs (Cazden 1988; Gutierrez, 1994; Mastrini-McAteer, 1997; Wells, 1996). Teachers’ Beliefs is considered as kind of potential factor influencing teachers’ instructional decisions, including teaching thinking process, teaching plans, perception, evaluation and instruction activities. (Albion & Ertmer, 2002). Recent studies also investigated the importance of teacher’s beliefs or intentions on their teaching practices and found that there is a link between teachers’ beliefs or intentions and their teaching practices (Almarza, 1996; Ertmer, et al., 1999; Johnson, 1992; Lin, 2001; Smith 1996; Wang, 2000). Martinez (2000) investigated the relationship between the teachers’ beliefs and the classroom literacy practices of a first-grade bilingual teacher and explored the teacher’s perceptions toward literacy instruction reflected her literacy practices. Moreover, in Ping and Swe’s (2004) study, the teachers’ use of teaching strategies depended on their pedagogical intention. If the teacher wanted to invite the students to think critically, he or she would use prompts as a scaffolding strategy. Two studies above showed that teachers did apply their pedagogical beliefs or intentions to their teaching practices. However, a few studies had different results (Mastrini-McAteer, 1997; Tucker, 2001). Oskoz and Liskin-Gasparro (2001) did a case study to investigate teachers’ beliefs and
discourse of corrective feedback in a university-level Spanish class. Based on the observation and interview data, the teacher, a native speaker of Spanish, believed students were inhibited by frequent correction. However, the data indicated that she provided extensive corrective feedback, not only in form-focused activities, but also in communicative activities, where she claimed to use recasts most frequently. This study showed that teachers’ belief might not exactly reflect on their teaching practices.

3. Conceptual Framework

3.1 As a consequence, the following hypotheses are established.

H1: Teachers’ Beliefs presents significant correlations with Scaffolding Strategies.
H2: Scaffolding Strategies shows remarkable correlations with Teachers’ Practices.
H3: Teachers’ Beliefs appears notable correlations with Teachers’ Practices.
H4: Scaffolding Strategies reveals moderating effects on the relations between Teachers’ Beliefs and Teachers’ Practices.

3.2 Research subject

The early childhood educators in the Preschool in Kaohsiung are distributed questionnaires. Having deducted invalid ones from the total 500 copies, 398 valid ones are retrieved, with the retrieval rate 79%.

3.3 Instruments

The Teacher’s Beliefs Scale were conducted and adopted from Forman (1994) and DeVries (2000). Scaffolding Strategies Instruction Scale were conducted and adopted from Chen’s (2011) considerations of preschool teachers’ beliefs and strategies. Teachers’ Practices were adopted from Chou’s (2013) considerations of three measuring elements of EFL students’ cognitive engagement, including attention, memory, and critical thinking.

4. Analysis and Discussion

4.1 Factor Analysis of Teachers’ Beliefs Scale

With Factor Analysis, three factors were abstracted from Teachers’ Beliefs Scale, including Teacher-led (eigenvalue=2.961, α=0.91), Peer-collaboration (eigenvalue=1.799, α=0.88), and Other-regulated learning (eigenvalue=1.1817, α=0.85); the covariance explained achieved 84.819%.

4.2 Correlation Analysis of Teachers’ Beliefs and Scaffolding Strategies

With Multiple Regression Analysis to test the hypotheses and the theoretical framework, the first regression equation reached the significance (F=21.798, p<0.001), Table 1. Teachers’ Beliefs presented notable effects on Verbal Communication, where Teacher-led and Other-regulated learning appeared remarkably positive effects on Verbal Communication with the significance (Beta = 0.186, p<0.05; Beta = 0.381, p<0.01).

The second regression equation achieved the significance (F=27.619, p<0.001), Table 1. Teachers’ Beliefs revealed outstanding effects on Physical Interaction, where Teacher-led and Other-regulated learning presented notably positive effects on Physical Interaction with the significance (Beta = 0.198, p<0.05; Beta = 0.281, p<0.01).

The third regression equation reached the significance (F=29.318, p<0.001), Table 1. Teachers’ Beliefs appeared remarkable effects on Emotional Caring, where Teacher-led, Peer-collaboration, and Other-regulated learning showed significantly positive effects on Emotional Caring with the significance (Beta = 0.193, p<0.05; Beta = 0.173, p<0.05; Beta = 0.286, p<0.01). H1 therefore was partially agreed.

Table 1: Multiple Regression Analysis of Teachers’ Beliefs and Scaffolding Strategies

<table>
<thead>
<tr>
<th>IV</th>
<th>Scaffolding Strategies</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Verbal Communication</td>
<td>Physical Interaction</td>
<td>Emotional Caring</td>
<td></td>
</tr>
<tr>
<td>Teachers’ Beliefs</td>
<td>β</td>
<td>Beta</td>
<td>ρ</td>
<td>β</td>
</tr>
<tr>
<td>Teacher-led</td>
<td>1.83*</td>
<td>0.186</td>
<td>0.032</td>
<td>1.671*</td>
</tr>
<tr>
<td>Peer-collaborate</td>
<td>1.103</td>
<td>0.133</td>
<td>0.074</td>
<td>0.735</td>
</tr>
</tbody>
</table>
4.3 Correlation Analysis of Teachers’ Beliefs and Scaffolding Strategies towards Teachers’ Practices

With Multiple Regression Analysis to test the hypotheses and the theoretic framework, the first regression equation revealed the significance (F=31.968, p<0.001), Table 2. Teachers’ Beliefs showed the notable effects on Learning Effects, where Space Environment, Peer-collaboration, and Other-regulated learning presented remarkably positive effects on Teachers’ Practices with the significance (Beta = 0.199, p < 0.01; Beta = 0.182, p < 0.05; Beta = 0.263, p < 0.001) that H2 was agreed.

The second regression equation achieved the significance (F=30.231, p<0.001), Table 2. Scaffolding Strategies showed outstanding effects on Learning Effects, where Verbal Communication, Physical Interaction, and Emotional Caring appeared significantly positive effects on Learning Effects, with the significance (Beta = 0.191, p < 0.05; Beta = 0.189, p < 0.05; Beta = 0.167, p < 0.05) that H3 was agreed.

Table 2: Multiple Regression Analysis of Teachers’ Beliefs and Interactive Learning

<table>
<thead>
<tr>
<th>DV</th>
<th>Learning Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>Teacher-led</td>
<td>β</td>
</tr>
<tr>
<td>Peer-collaboration</td>
<td>1.637*</td>
</tr>
<tr>
<td>Other-regulated learning</td>
<td>2.787***</td>
</tr>
<tr>
<td>Scaffolding</td>
<td></td>
</tr>
<tr>
<td>Verbal Communication</td>
<td>1.761*</td>
</tr>
<tr>
<td>Physical Interaction</td>
<td>1.896*</td>
</tr>
<tr>
<td>Emotional Caring</td>
<td>1.533*</td>
</tr>
<tr>
<td>F</td>
<td>31.968</td>
</tr>
<tr>
<td>P</td>
<td>0.000***</td>
</tr>
<tr>
<td>R2</td>
<td>0.317</td>
</tr>
<tr>
<td>Adjusted R2</td>
<td>0.074</td>
</tr>
</tbody>
</table>

Note: * stands for p<0.05, ** for p<0.01.

4.4 Moderating effects of Teachers’ Beliefs and Scaffolding Strategies on Teachers’ Practices
The moderating effects of Scaffolding Strategies were analysed with Hierarchical Regression, Table 3. Teachers’ Beliefs presented notable explanations on Teachers’ Practices (F=31.763, p<0.001). According to Model II, the effects of Teachers’ Beliefs and Scaffolding Strategies on Teachers’ Practices were considered to discuss the moderating effects of Interactive Learning. It was found that β of Teacher-led remarkably dropped from .235 (p<.01) to .181 (p<.05), showing that Scaffolding Strategies would reduce the direct effects of Teacher-led on Learning Effects. Furthermore, β of Peer-collaboration significantly dropped from .174 (p<.05) to .151 (p<.05), presenting that Scaffolding Strategies would reduce the direct effects of Peer-collaboration on Learning Effects. Finally, β of Other-regulated learning notably dropped from .278 (p<.001) to .183 (p<.05), revealing that Scaffolding Strategies would reduce the direct effects of Other-regulated learning on Learning Effects. From the research outcomes, Scaffolding Strategies appeared moderating effects on the relations between Teachers’ Beliefs and Teachers’ Practices that H4 was agreed.

Table 3: Hierarchical Regression Analysis of Teachers’ Beliefs and Scaffolding Strategies towards Teachers’ Practices

<table>
<thead>
<tr>
<th>IV</th>
<th>Model I</th>
<th>Model II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers’ Beliefs</td>
<td>β</td>
<td>Beta</td>
</tr>
<tr>
<td>Teacher-led</td>
<td>2.073**</td>
<td>0.235</td>
</tr>
<tr>
<td>Peer-collaboration</td>
<td>1.637*</td>
<td>0.174</td>
</tr>
<tr>
<td>Other-regulated</td>
<td>2.787***</td>
<td>0.278</td>
</tr>
<tr>
<td>Scaffolding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal Communication</td>
<td>2.019**</td>
<td>0.201</td>
</tr>
<tr>
<td>Physical Interaction</td>
<td>2.168***</td>
<td>0.217</td>
</tr>
<tr>
<td>Emotional Caring</td>
<td>1.802*</td>
<td>0.183</td>
</tr>
<tr>
<td>F</td>
<td>31.763</td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>0.000***</td>
<td></td>
</tr>
<tr>
<td>R2</td>
<td>0.351</td>
<td></td>
</tr>
<tr>
<td>Adjusted R2</td>
<td>0.074</td>
<td></td>
</tr>
</tbody>
</table>

Note: * stands for p<0.05, ** for p<0.01.

5. Conclusion and Future Research

Aiming at the research outcomes of teachers’ beliefs, scaffolding strategies, and teachers’ practices, the following suggestions are proposed for Preschool with Scaffolding Strategies.

(1) In terms of EFL teachers’ perceptions of Zone of Proximal Development (ZPD) and scaffolding, those are important factor in assisting students’ second language learning.

(2) In terms of English teachers’ scaffolding strategies, verbal communication, physical interaction and emotional care in different ways could help students to achieve different categories of cognitive engagement.

(3) In terms of English teachers’ different beliefs, teacher-led, peer-collaboration, other-regulated learning played unique role in their usage of scaffolding strategies.

(4) Based on English teachers’ beliefs, they could guide students to achieve different levels of cognitive engagement in class based on their beliefs.

With the other finding of the study implying that the understanding of these scaffolding strategies could be viewed as teachers’ hypothesis to enhance teacher’s practices. We do not know whether students really engage cognitively in English learning through these scaffolding strategies. The experience of the students can also be valuable data for identifying the effectiveness of those scaffolding strategies. In the future study, the researcher should take students’ perspectives into account.

Further research also needs to encompass parents’ expectations or perceptions of English teaching. Although teachers had expressed their beliefs of using strategies based on their teaching or learning experience, other factors might have an influence on their choice of strategies. It seems that there are some relations between teachers’ strategies and parents’ expectations. The researcher should also treat parents’ expectations in the future studies and investigate how parents’ expectations and feedback influence teachers’ strategies. With more detailed and complete
investigations, teachers may benefit from research implications and apply their strategies more efficiently to enhance students’ cognitive engagement in English class.

References


