A four-category intervention analysis of EFL teachers’ Scaffolding Roles in Short-Focused Conversations

Anaálisis del rol de apoyo de los docentes de lengua inglesa a partir de cuatro categorías de intervención en conversaciones temáticas breves

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Abstract

A new perspective, adapted from John Heron’s classification of counselor-client interactions, is proposed to explore teachers’ Scaffolding Roles (SRs). To provide a solid foundation for such an adaptation, both the theoretical and practical supports were put forward. First, the nature of the counselor’s interventions and the construct of scaffolding were collated in terms of their essential features proposed in the related studies. It was concluded that the essential features of the counselor’s interventions including the integration of emotional, interpersonal, and political competence, moment-to-moment interactions with the ongoing support, goal-directedness, and contingent assistance are comparable, and even compatible with the construct of scaffolding. As a result, the adapted framework was put into practice in the EFL context to provide the statistical support. Applying the framework, 500 Short-Focused Conversations (SFCs) of 30 Iranian EFL teachers were scrutinized according to which four SRs (i.e., prescriptive, informative, confronting and catalytic) have been employed. Later, the possible relationship between the teachers’ choice of SRs and three main factors including their scaffolding practices, the relative degree of support in SFCs, and their qualification were investigated through Kruskal-Wallis H and Chi-Square tests. In sum, via the employment of the quantitative and qualitative analyses, the findings of the study confirmed the sensitivity of the model to the notion of fading, an indispensable stage of scaffolding, as the learners’ growth of autonomy and teachers’ employment of the catalytic role were closely associated.

Key Words: Scaffolding practices, authoritative scaffolding role, facilitative scaffolding role, short-focused conversations, teacher’s qualification.
Resumen
Este estudio, a fin de analizar el papel de apoyo de los docentes de lengua inglesa, presenta una nueva perspectiva adaptando la clasificación propuesta por John Herón de las interacciones entre consejero y cliente en las citas psicológicas. Exponer una base sólida para esta adaptación, también requiere un análisis teórico y práctico del tema. En primer lugar, la naturaleza de las intervenciones del consejero y las intervenciones de apoyo de los profesores fueron comparadas de acuerdo con las características indicadas en los estudios relacionados. Resulta que la clasificación presentada por Herón sobre las estrategias de intervención del consejero, es comparable y compatible con el concepto de apoyo en la enseñanza de un idioma, porque un conjunto de conocimiento y competencia política, interpersonal y emocional - interacciones momento a momento con el apoyo continuo- orientación a objetivos y asistencia contingente, consisten el fundamento de estas intervenciones. Como consecuencia, este método fue puesto en práctica en el área de la enseñanza de la lengua inglesa a fin de que se analizara su aplicación estadística. Usando este modelo se analizaron 500 conversaciones cortas enfocadas de 30 docentes iraníes de lengua inglesa de acuerdo con 4 intervenciones (prescriptiva, informativa, confrontadora, catalítica). Posteriormente, fue estudiada la posible relación entre el papel de apoyo de los profesores y sus métodos de apoyo- el nivel y el grado de apoyo y de las habilidades de los profesores- mediante la Prueba $\chi^2$ y H de Kruskal-Wallis. En resumen, tras aplicar el análisis cuantitativo y cualitativo, el resultado de este estudio confirma la susceptibilidad del modelo a una parte del apoyo que desaparece gradualmente, porque existe una correlación muy estrecha entre el nivel de desarrollo de la independencia de los estudiantes de lengua y el nivel del empleo de los papeles catalíticos por los profesores.

Palabras Clave: Prácticas de andamiaje, rol autoritario de andamiaje, rol facilitador de andamiaje, conversaciones temáticas breves, cualificación del docente.

INTRODUCTION

Among various frameworks for the analysis of teacher’s roles within teacher-learner interactions, Socio-Cultural Theory (SCT) proposed by Vygotsky is highlighted in a plethora of studies. Dissimilar to other theories employed for the analysis of such interactions, SCT interestingly encompasses a broad range of teachers’ roles all of which can be beneficial if tailored to the context requirements. However, no clear-cut classification of these supportive roles is present in the literature. Since SCT embraces a host of comprehensive concepts, it can provide a rich foundation for such an analysis. As the name implies, the cultural, historical, and social dimensions of language use and cognitive development are emergent and interwoven. According to Lantolf and Thorne (2006), the symbolic system of each culture, specifically language, becomes internalized via the process of regulation. Internalization, the ultimate goal, is the outcome of three stages of regulation including object-regulation (i.e. regulation of mental activities through objects), other-regulation (i.e. implicit and explicit mediation with various levels of assistance/scaffolding), and self-regulation (i.e. accomplishment of activities with minimal or no external support/internalization). The culturally constructed artifacts, influential in the development of higher mental abilities when
internalized, transmit and are transformed from one generation to the next according to the individual’s and community’s needs. The evolution of artifacts through time, as Lantolf and Thorne (2006) point out, makes the feature of history prominent in the cognitive developmental process. Owing to the emphasis on the socio-cultural activities and the interwoven connection of human psychological process and his interaction with others, Kramsch (2000) and Lantolf (2000) highlight the crucial role of social nature of communication within this perspective and point out that studying human cognitive development out of social context is entirely meaningless as language use precedes cognitive and psychological development.

Central to SCT is the conspicuously distinct role of teachers specifically in teacher-learner interactions in the classroom. A shift from other-regulation to self-regulation is what the interactions highlight, a goal which can be achieved via the planning, provision, direction, and manipulation of quantitatively and qualitatively attuned other-regulated support or scaffolding, a term coined by Bruner (Lantolf & Thorne, 2006; Wood, Bruner & Ross 1976). To provide the contextually appropriate scaffolding, teachers should pay heed to a number of factors, specifically the indispensable stages required to accomplish learners’ ultimate autonomy. In order to do so, the teacher-learner interactions follow the trajectory of scaffolding commencing with teacher-regulated activities which gradually culminates in learner-regulated activities. This process can merely be accomplished through four steps including 1) diagnostic strategies to pinpoint the learners’ needs to achieve an endpoint, 2) appropriate assistance provision in accordance with current learners’ capabilities to direct the learners toward the final goal, 3) a transfer or a shift of control and responsibility from the teacher to the learner in the progression of scaffolding which in turn culminates in the decrease of the teacher’s assistance and enriched learners’ engagement, and finally 4) fading according to which the teacher’s assistance is gradually withdrawn and the goal is accomplished (Michell & Sharpe, 2005; Pol, Volman, & Beishuizen, 2010). Each of these requires an appropriate and context-dependent SR. Noteworthy is the fact that Heron’s intervention model (2001) encompasses different degrees of support provided by the more knowledgeable person ranging from the most authoritative to the least facilitative one. Consequently, a kind of one to one correspondence might be observed between each intervention type, named SRs in the present study, and the required stages of the scaffolding process. In other words, Heron’s classification can be employed to introduce a context-dependent model of moment-to-moment SRs to equip the EFL teachers with a solid foundation to self-assess their performance according to the context requirements. Therefore, the present study endeavors to practically employ this adapted classification of SRs in EFL contexts to first categorize the teachers’ SRs and then statistically analyze the relationship between the teachers’ choice of SRs and three main factors including their scaffolding practices, the relative degree of support in
SFCs, and their qualification. If the proposed SRs are in harmony with the required stages of scaffolding practices, specifically the assistance provision and fading, the practicality of the model can be supported.

Within the SLA contexts, this model has been adapted by a few studies (e.g. Hamid & Azman, 1992; Lemus, White & Fonseca, 2007; Yurekli, 2013) the majority of which highlights its practical application in the interpersonal interventions between the observer and the teachers in post-observation sessions. Consequently, the ultimate aim was to analyze the linguistic and functional suitability and adequacy of such intervention types. Despite the previous studies conducted on Heron’s classification, this study considers the notion of support, and its presence in all SRs including prescriptive one. As Heron (2001: 154) highlights, “being supportive is a broader concept/attitude of mind which encompasses all types of interventions”. Such a perspective paves the way for the application of this model to the arena of scaffolding.

1. Theoretical framework

1.1. Socio-Cultural Theory

The ubiquitous employment of SCT in the field of education illustrates its efficacy and suitability for the scrutiny of classroom interactions. According to Donato (2000), SCT defines learning in an entirely revolutionary way according to which the dualism between body and mind, cognition and affect, and verbal and nonverbal are overcome via the inclusion of social factors. In SCT, ‘agency matters’ (Donato, 2000), as each learner acts as an individual with his or her own unique history, belief, assumption, rights and values. Furthermore, it highlights the situated learning (Lave, 1991: 80) according to which the manner that learning unfolds varies with regard to social contexts and “person’s acting, setting, situation, systems of activity, and institutions” which culminate in the transformation of culturally- and historically-specific articulation.

With the application of SCT constructs, a theory of scaffolding can be proposed. Scaffolding as a form of other-regulation refers to different types of support learners receive through interaction with their teachers and peers in the process of learning. For learning to be most effective, this support should be in accordance with the learners’ Zone of Proximal Development (ZPD), a term coined by Vygotsky (1987: 86) as:

“The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.”
In other words, the assisted intervention should be attuned to the learners’ current and potential developmental level. Through a careful scrutiny of the required interaction within learners’ ZPD, Bruner proposed the term scaffolding (Lantolf & Thorne, 2006) which is defined as “a process that enables a child or novice to solve a problem, carry out a task or achieve a goal which would be beyond his unassisted efforts” (Wood et al., 1976: 90). Thus, the underlying idea of scaffolding refers to the calibrated assistance required within the stage of other-regulation to direct the learner toward self-regulation.

Pea (2004) states that a theory of scaffolding should pay heed to 1) the prediction of the required and sufficient assistance to an individual without which the performance on the task fails, 2) individual’s differentiation according to their developmental level, 3) the process of making decisions about the qualitatively and quantitatively appropriate scaffolding strategies, and 4) the dominance of face to face scaffolding over software scaffolding artifacts.

Germane to the appropriate choice of scaffolding strategies, is the right degree or quantity of strategy provision. Ohta (2000) pinpoints the underlying causes of development hindrance in instructional settings and ascribes it to too easy tasks or too much assistance. Similarly, Johnson (2003) and Gredler (2009) assert that too much accommodation can hinder the learner’s progression from other-regulation/inter-mental processes to self-regulation/intra-mental processes, the result of which is fossilization. Hence, interactional cues are of great significance in the appreciation of learners’ actual and potential level, and consequently, in the appropriate degree of scaffolding provision. Teachers’ expertise, the nature of the task, the goal and the developmental level or ZPD of the individuals can be named as determining factors (Ohta, 2000). Consequently, SCT has greatly contributed to the field of teacher education. In this regard, Johnson (2009) states that SCT is a ‘theoretical lens’ through which teachers’ reconstruction of their teaching practice occurs in an attempt to be responsive to individual and local needs. In the present study, Heron’s model has been employed to scrutinize EFL teachers’ SRs. A detailed description and the follow-up modification of the model are presented in what follows.

1.2. Heron’s model

In an attempt to classify the intervention types between a practitioner and a client in counseling sessions, Heron (2001) puts forward a classification that is applicable to various social and occupational contexts involving interventions between a person who provides a professional service such as a psychologist, a bank manager, or a teacher and the one who is involved and benefits from the service, namely the client. The intervention provided is defined as “any identifiable piece of a verbal and/or nonverbal behavior that is a part of the supervisor’s interaction with the trainee in an enabling situation” (Hamid & Azman, 1992: 90).
It should be noted that the isolation of this model from any schools of psychology or psychotherapy and the examined validity of the underlying construct in various studies (e.g., Heron, 1996) enhance its wide-ranging application as a basis for comparison. The prevalent nature of support in the entire categorization of Heron’s interventions makes them ideally suited to the SRs teachers may presume in the process of assistance provision. In this study, SR refers to the teacher’s supportive role the choice of which depends on the dominant use of a specific Scaffolding Strategy/SS (see instruments section). A brief introduction to the SRs modified definitions is presented in what follows.

a) Authoritative SRs: (More teacher-directed)

- Prescriptive Role: It refers to the teacher’s supporting role through the dominant provision of instruction and suggestions to direct learners’ behavior within supportive interactions. Due to their imposed dominance, the number of teacher’s words exceeds dramatically.

- Informative Role: It refers to the teacher’s supporting role through the dominant provision of required information and knowledge to assist learners’ comprehension as well as production. Nevertheless, the degree of teacher’s dominance diminishes in comparison with the prescriptive role.

- Confronting Role: It refers to the teacher’s supporting role through the dominant use of Consciousness Raising (CR) about some problematic areas to assist learners in surmounting learning obstacles.

b) Facilitative SRs: (More learner-directed)

- Cathartic Role: It refers to the teacher’s supporting role through the dominant use of emotional attention to overcome learners’ painful emotions including fear, anger, and grief. Owing to the few interventions dealing with the aforementioned issues in EFL classes, this type was disregarded in this study.

- Catalytic Role: It refers to the teacher’s supporting role through the dominant use of questions to promote learners’ self-discovery, self-directed learning, and problem-solving. This type of intervention is an indispensable feature of scaffolding; nevertheless, learners’ final success in self-discovery is the conclusive evidence for designating catalytic roles to the teachers.

- Supportive Role: It refers to the teacher’s supporting role through the dominant payment of high regard for individual learners’ viewpoints, attitudes, personalities, and qualities. This unquestionable role of teachers is apparently implied and not verbalized in instructional interventions; thus, this role was also ignored in the present study.
Form a general viewpoint, teachers’ choice of these SRs, their value and appropriateness depend largely on the contextual needs and the intervention function. To corroborate the application of this model as an instrument for the scrutiny of teachers’ SRs, the following intimate links are put forward.

1.3. **Intimate links between Heron’s perspective and effective scaffolding**

1.3.1. **Scaffolding features and conditions**

The commonalities between Heron’s intervention types and effective scaffolding features and functions can be summarized as reciprocal individual commitment to the process of intervention; one-to-one and face-to-face collaborations, accompanied by ongoing support appearing in such different forms as guiding, questioning, suggesting, and encouraging; the provision of adjusted and contingent assistance by a more capable individual; fading as an indispensable element of such interventions; presumption of various identity forms by the practitioner and the client according to participation patterns; context-bound choice of efficient intervention; intersubjectivity (i.e., the mutual engagement through shared attention and understanding accompanied by encouragement and shared rapport); intentionality; and transcendence.

1.3.2. **Scaffolding course: A shift from other-regulation to self-regulation**

Self-directedness and autonomy, an ultimate goal accentuated by Heron (2001), can be achieved merely through the shift from practitioner-directed toward client-directed interventions. In his words:

“The movement forward is towards a degree of professionalization. (...) A shift from telling the client what to do in the light of the professional’s expert knowledge to cooperate with the client as a self-determining person” (Heron, 2001: 210).

In this regard, Heron refers to his proposed six categories and asserts that there are three main political values including hierarchy (i.e., practitioner-directed decision making), cooperation (i.e., reciprocal process of decision-making), and autonomy (i.e., client-directed decision-making facilitated by the practitioner). Thus, the difference in the above-mentioned categories lies in the practitioner’s degree of authority.

This categorization is in line with Vygotsky’s often-quoted shift from other regulation to self-regulation which determines the degree as well as the type of required scaffolding or intervention. According to Heron (2001), a valid intervention belongs to the right category and subcategory, the language form selected is suitable and the timing and the manner of provision are proper, the decision of which is made with regard to the context. This common course is illustrated in the Figures 1 and 2.
As it is apparent, the direction commences from commanding prescription and moves toward client’s self-direction. In the first two types of intervention, consultation is not an option in the interaction, and intervention appears in the forms of prescribing, persuading, advising, proposing, and suggesting. From the outset of consultative prescriptions, the client’s role becomes more dominant. At final stages, collaboration and negotiation leads the client to autonomy. In other words, the employed intervention types differ according to the stages (see Figure 2).

1.3.3. The interrelation between individuals and society

To raise consciousness and challenge client’s beliefs and actions restrictions in the process of elaborating confronting interventions, Heron refers to the overlapping agendas ranging from intrapersonal to global ones (Figure 3), a Socio-Cultural comparable depiction of inter-relation and inseparability between the individuals and the society.
In the realm of SLA, this framework has been utilized by a few studies the majority of which analyze these interpersonal interventions in teachers’ post observation sessions. By means of linguistic and functional analysis of the interventions, Hamid and Azman (1992) conclude that a balance should be retained between authoritative and facilitative functions neither of which is a superior. Similarly, through the investigation of the feedback sessions of learner teachers with their tutor, Lemus et al. (2007) highlight the significant impact of catalytic as well as confronting role in the tutees’ progress; thus, assigning identical weight to both roles. More recently, Yurekli (2013) scrutinizes observers’ actual practice and teachers’ preferences in post observation sessions and points out that whereas facilitative interactions were prevalent, some teachers illustrated a marked tendency toward authoritative interventions. Despite the above-mentioned studies conducted on Heron’s classification, the present study takes an entirely distinct perspective and considers the notion of support, and its presence in all SRs including prescriptive one. From this standpoint, the model is ideally suited to meet the requirements of scaffolding practices.

2. Methodology

The theoretical compatibility of Heron’s model with the concept of moment-to-moment scaffolding was barely adequate to justify the application of the model in EFL contexts. To further scrutinize its practicality, the following research questions were proposed.

1) Is there any statistically significant difference in the EFL teachers’ scaffolding practices among different SRs?
2) Is there any statistically significant relationship between the teachers’ SRs and their degree of support within SFCs?
3) Is there any statistically significant relationship between the teachers’ SRs and their qualification?

If the above-mentioned questions prove to be significant, the adapted model of SRs illustrates some degrees of compatibility with the concept of scaffolding in EFL contexts. In other words, the statistical results can somehow support the practicality of proposed model. To obtain the results, the model was put into practice the details of which are presented in what follows.

2.1. Participants

For the scrutiny of teachers’ SRs, the recording and the close examination of the teachers’ naturally occurring scaffolding practices were required. To prioritize the sample’s homogeneity and thus the reliability of the study, 30 volunteer in-service Iranian EFL teachers from two private language schools in Tehran were selected who taught at the elementary and intermediate levels. The commonalities between the schools can be summarized as similar instructional materials and syllabus, teaching English to adults and the identical mother tongue (i.e., Persian) of the teachers. It is worth noting that a non-probability sampling was employed as they were unexceptionally volunteers. The demographic information of the participants is depicted in Table 1.

In order to delve into the relationship between teachers’ qualification and their employed SRs, a distinction was made between more-qualified and less-qualified teachers according to three major criteria, including the teachers’ teaching level, teaching experience, and educational fields of study. Subsequently, those with relevant teaching field of study (i.e., TEFL, English literature, English translation, and linguistics), intermediate classes, and seven years of teaching experience or more were classified as more-qualified teachers. In case of contradictory results, the teachers who met two of the above-mentioned requirements were also classified as more-qualified. As it is apparent, the rest formed the less-qualified ones.
Table 1. The participants’ demographic information.

<table>
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<th>Teachers’ Demographic Information</th>
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2.2. Instruments

2.2.1. A conceptual model of scaffolding

In order to scrutinize the teachers’ scaffolding practices, Birjandi and Jazebi (2014) have proposed a checklist which encompasses 55 Scaffolding Strategies/SSs (i.e., the tools or the how of scaffolding) classified into six Scaffolding Functions/SFs (i.e., the intentions or the what of scaffolding). The scaffolding functions are:

a) Linguistic scaffolding: It refers to the provision of support with the purpose of learners’ comprehension and production enhancement through the simplification of instructional language (for example, form-based descriptions, and CR).

b) Cognitive scaffolding: It refers to the provision of support with the purpose of learners’ comprehension enhancement which occurs via conceptual scaffolding (i.e., supportive frameworks for meaning, such as charts), and procedural scaffolding (i.e., supportive framework for learning procedures)

c) Cultural scaffolding: It refers to the provision of support with the purpose of learners’ comprehension and production enhancement through the employment of culturally and historically familiar artifacts, tools, and informational sources.

d) Meta-cognitive scaffolding: It refers to the provision of support with the purpose of enhancing learners’ structure and regulation of cognitive processes, co-construction of knowledge, and monitoring and control of learning processes.

e) Social scaffolding: It refers to the provision of support through the employment of social interaction, such as group work.
f) Affective/Emotive scaffolding: It refers to the provision of support with the purpose of learners’ positive emotion and attitude enhancement through encouragement and approval.

2.2.2. SFC as the unit of analysis

In order to investigate the SCT constructs in relation with assistance and internalization, various units of analysis ranging from a word to mediated actions have been proposed. In the present study, Short-Focused Conversations (SFCs) were employed which refer to a type of instructional conversation between the teacher and the learner(s) that focuses on the pursuit of a certain learning goal through negotiation for meaning and co-construction of knowledge (Panselinas & Komis 2009). With the employment of various strategies such as cues, questions, elaborations, and modeling, the teacher taps into learners’ initiation and preserves continuity of interaction, attention maintenance, and co-construction of meaning until the problem is solved.

Furthermore, some further empirical features of SFCs have been proposed by Birjandi and Jazebi (2014) to provide a solid and reliable foundation for the SFCs selection in the study. They encompass: a) spiral/distributed turn taking, b) a goal-directed conversation in which the goal is accomplished, c) unpredictable utterances of either the teacher or the learner, d) teacher-fronted conversation, and e) the inclusion of main stages of scaffolding.

A distinction was made between high-support and low-support SFCs on the basis of the teachers’ degree of support and dominance. As the scaffolding process moves toward the fading stage, teachers’ dominance wanes. The realization of dominance can be studied via the number of words spoken by each speaker, the initiator, and the number of turns per unit (Kostouli, 2005; Pentimonti & Justice, 2010).

To provide a reliable basis for the classification, the data were compared and contrasted based on which three criteria (70 for the number of teacher’s words, 30 for the number of learners’ words, and 14 for the number of turns) were presented. Subsequently, the SFC was classified as high-support if the conversation met the afore-mentioned conditions (i.e., the total exceeded the aforementioned criteria and it was teacher-initiated) and low-support in case of failing to achieve them.

2.2.3. Heron’s model

The SFCs were categorized according to the four SRs (i.e., prescriptive, informative, confronting, and catalytic) adapted from Heron’s model (See the Review of Literature for detailed description). He stresses that there is no clear-cut distinction among the categories; therefore, in case they overlap, the dominant one was taken into account. To provide a clear depiction of the four-category SRs in SFCs, the following samples are presented which start with a guideline to the abbreviations employed.
Sample 1: Prescriptive SR

T. We have skating and we have in line skating. We have skating and / in / line / skating.
S. skating
T. Skating // and in line skating. What’s the difference between them? What is in line skating?
S. For example / in Skemskak Dizin // skating and in line skating?
T. You asked me a question / I asked you. // What’s the difference between skating / in line skating?
S. UI / outdoor.
T. Outdoor. No / no.
S. Board skating.
T. No. that’s another thing.
S. UI snowboard / snowboard
T. No / no / no. what is it? The difference is / between the shoes. In line skating / it has just in a line / it has four wheels. in a line four wheels. Like this. Okay? For example / this is a shoe. It has wheels / just in one line. But skating? It has four wheels. One here / one here / here and here. // Got it?
Ss. Yes.

Sample 2: Informative SR

S. Although the traffic was heavy I eh / re / eh / arrived to class eh /soon.
T. Very good. Just the problem with arrive.
S. uh huh.
T. Arrive
S. to class? // at time.
T. at
S. at
T. at / yeah. Arrive at the class. Arrive in the city. Yeah? Arrive in or arrive at. Yeah?

Sample 3: Confronting SR

T. Okay. Jenny wants to call her own answering machine. So / why then?
S. Because she thinks it’s phone
T. To phone?
S. Yes.
T. No.
S. Because she wants to..
S. Because she enjoys
S. How
T. How what?
S. How
T. Because she wants to know how many?
S. Aha messages
T. Messages?
S. In answering
T. / she has / answering machine. Okay? So she wants to know how many messages she has on the answering machine.

Sample 4: Catalytic SR

T. Amir Reza can you / can you ask a question from Shayan / with how often?
S. How often / emm
Ss. Laughing
T. How often
S. Teacher / How often studying your English book? I think Study / Study / Study /
S. I study /
S. how often do you?
T. Aha. How often plus? How often plus? / How often is a wh question. What / where / when
S. main verb
T. Ha?
S. main verb? Plus main verb?
T. no after them / we have?
S. infinitive
S. Yeah. Do
T. Do or does. Both of them. What do you do? What do you do? How often do / after that
S. Subject
T. Subject / after that?
S. verb
T. Main verb. How often / main verb.
S. Teacher
T. How often do you?
S. go

JAZEBI, BIRJANDI & MAFTOON
S. go
T. Do you
S. How often do you study
T. do you study English? How often do you study English?

3. Data collection

Thirty volunteer teachers’ classes (15 from each institute) were audio-recorded, each for three sessions. As every session was 60 minutes, 90 instructional hours were scrutinized to select the SFCs. The criteria mentioned in the instruments section were employed to select the SFCs from other instructional conversations in these classes. The result was 500 SFCs, the duration of which ranged from 15 seconds to 3 minutes and 45 seconds, with total number of 76544 words, selected for meticulous transcriptions and further examination. All the SFCs were transcribed. Afterwards, a coding scheme, developed on the basis of the scaffolding model (Birjandi & Jazebi, 2014), was employed to record the type and frequency of the employed SFs and SSs in each sentence within one SFC. Furthermore, the number of turns, teacher’s words, learner’s words, teacher’s or learner’s initiation in each SFC were documented as well. Afterwards, the SFCs were classified into various types on the basis of the SRs (i.e., Heron’s model). In other words, the unit of analysis for categorizing different scaffolding practices into specific SSs and the subsequent SFs was single sentences. However, one complete SFC including the interactions between the teacher and the learner(s) formed the basis for the allocation of one SR as well as the distinction made between low-support and high-support SFCs. What follows is a sample of a low-support SFC which illustrates the application of the coding scheme.

Sample 5

S. But eh/ normally eh/ I sleep eh/ eleven years old PM/ and
T. Eleven / years / old / PM? (SS: Repeating a previously spoken utterance, SF: Social scaffolding)
S. Eleven or
T. Just try to listen to my answer. (SS: Giving directives, SF: Social scaffolding)
S. Ah
T. Eleven years old PM? (SS: Form-based CR, SF: Linguistic scaffolding)
S. Ah/ yes. Laughing
S. O’clock/ eh/ PM.
T. Eleven? (SS: Negotiating the form/output prompting, SF: Linguistic scaffolding)
S. O’clock.
After the coding phase, the data were entered into SPSS for further analysis. To enhance the coding scheme reliability and the clarity of the items, a coder was trained and requested to code 100 SFCs randomly selected and the inter-coder reliability was checked (Cronbach’s kappa = .8) and proved to be high. Afterwards, the data went through meticulous analysis to come up with the answers to the research questions.

4. Data analyses

4.1. Teachers’ SRs and their scaffolding practices

Teachers’ scaffolding practices were collated in terms of their use of different types of SFs and SSs as well as the quantity with which they were employed. To be more accurate, the collation was conducted at three levels of Scaffolding Total Average Use/STAU (i.e., the average of employed SSs), SFs, and SSs. Owing to the asymmetric distribution and four levels of comparison, Kruskal-Wallis H Test was run to examine the differences with regard to STAU. Teachers’ STAU employment differed in the four SRs including prescriptive, informative, confronting, and catalytic.

Statistically speaking, significant difference ($H(2) = 43.293, p = .000$) with a mean rank of 266.59 for the prescriptive role, 262.14 for the informative role, 298.80 for the confronting role, and 189.04 for the catalytic role was revealed. The post hoc follow up was employed to determine the dominant role(s) with regard to the degree of scaffolding. The result revealed a significant difference ($p = .000$) between the STAU by the first three roles (i.e., prescriptive/M=51.06, informative/M=53.26, and confronting/M=54.16) and catalytic role (M=37.93). However, no difference was observed among the first three categories STAU. In other words, the average of SSs employed in SFCs where teachers had a prominent catalytic role was conspicuously lower than the time the prescriptive, informative, and confronting roles were adopted.

For further scrutiny at the level of SFs, another K-W Test was conducted. The result revealed that except linguistic and cultural functions, significant difference was observed in the rest of SFs (i.e., cognitive, social, affective, and meta-cognitive) in relation with the adopted SRs (See Table 2). To further examine the detailed mean differences within each SF, the post hoc and the pair-wise comparison were also run. Table 3 merely includes the significant differences.

### Table 2. Major SFs and teachers’ roles.

<table>
<thead>
<tr>
<th></th>
<th>Linguistic</th>
<th>Cognitive</th>
<th>Social</th>
<th>Cultural</th>
<th>Affective</th>
<th>Meta-cognitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square Sig.</td>
<td>2.939</td>
<td>42.265</td>
<td>25.878</td>
<td>6.864</td>
<td>11.676</td>
<td>15.774</td>
</tr>
<tr>
<td></td>
<td>.401</td>
<td>.000</td>
<td>.000</td>
<td>.076</td>
<td>.009</td>
<td>.001</td>
</tr>
</tbody>
</table>
The analyzed data illustrated a significant difference for cognitive, social, and meta-cognitive categories in favor of authoritative roles (i.e., prescriptive, informative, and confronting) at .05 level. Nevertheless, affective strategies were more frequently employed by teachers with a facilitative role (i.e., catalytic). As it is illustrated in Table 3, the prescriptive role (M=15.25), the informative role (M=14.61), and the confronting role (M=13.48) were more frequently employed in comparison with the catalytic role (M=7.69) when cognitive SF was applied. Similarly, this difference was observed when the Social SF was at play. In other words, the mean of prescriptive role (M=19.10), the informative (M=22.54), and the confronting role (M=23.83) exceeded that of the catalytic role (M=16.91). And in the same line, the mean of the prescriptive role (M=6.05) and the informative roles (M=4.03) outnumbered the catalytic role mean (M=3.29) with regard to the meta-cognitive SF. However, a different result was obtained for the affective SF, as the catalytic role mean (M=2.83) passed that of the prescriptive role (M=1.91).

**Table 3.** Significant comparisons of SRs with regard to SFs.

<table>
<thead>
<tr>
<th>Scaffolding Categories</th>
<th>Heron’s model (mean)</th>
<th>Heron’s model (mean)</th>
<th>Sig.</th>
<th>Adjusted Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive</td>
<td>Catalytic (7.69)</td>
<td>Prescriptive (15.25)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Informative (14.61)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Confronting (13.48)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Social</td>
<td>Catalytic (16.91)</td>
<td>Confronting (23.83)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Informative (22.54)</td>
<td>.006</td>
<td>.036</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prescriptive (19.10)</td>
<td>.004</td>
<td>.022</td>
</tr>
<tr>
<td>Affective</td>
<td>Prescriptive (1.91)</td>
<td>Catalytic (2.83)</td>
<td>.001</td>
<td>.004</td>
</tr>
<tr>
<td>Meta-cognitive</td>
<td>Catalytic (3.29)</td>
<td>Prescriptive (6.05)</td>
<td>.005</td>
<td>.032</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Informative (4.03)</td>
<td>.000</td>
<td>.001</td>
</tr>
</tbody>
</table>

With regard to the aforementioned results, it seemed that some specific SSs within each SFs might be at play which in turn resulted in such a difference. Therefore, the key SSs were extracted as well with the employment of the same afore-mentioned statistical procedures (Table 4).
Table 4. Key SSs in the choice of teachers’ roles.

<table>
<thead>
<tr>
<th>Cognitive Key SSs</th>
<th>Social Key SSs</th>
<th>Affective Key SSs</th>
<th>Meta-cognitive Key SSs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing example</td>
<td>Promoting participation</td>
<td>Encouraging providing evaluative comments</td>
<td>Problematizing (disagree)</td>
</tr>
<tr>
<td>Reviewing</td>
<td>Offering suggestion</td>
<td></td>
<td>Directing attention to feeling</td>
</tr>
<tr>
<td>Meaning-based CR</td>
<td>Soliciting suggestion</td>
<td></td>
<td>Helping learners think about thinking</td>
</tr>
<tr>
<td>Reducing the choices</td>
<td>Pausing for learners’ response</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simplifying tasks</td>
<td>Repeating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In and out of class connection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elaboration prompt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meaning-based feedback</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completing learners’ utterances</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meaning-based negotiation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.2. Teachers’ SRs and the degree of support in SFCs

To examine the relation between the degree of support in the SFCs and the teacher’s choice of the SR, a Chi-Square test was conducted the result of which exhibited significant association ($\chi^2=32.257, p=.000, \Phi$ and Cramer’s $V$ tests=.000) between teachers’ SRs and high- and low-support SFC types. It was revealed that the catalytic role (22%) was dominantly associated with low-support SFCs in comparison with other SRs including confronting role (12.8), informative role (14%), and the prescriptive role (6.2%), whereas the informative role (15%) was dominant in high-support SFCs. (See Table 5)

Table 5. Cross-tabulation of the degree of support and teachers’ SRs.

<table>
<thead>
<tr>
<th></th>
<th>Pres$^1$</th>
<th>Info$^2$</th>
<th>Conf$^3$</th>
<th>Cata$^4$</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low scaffolding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>31</td>
<td>70</td>
<td>64</td>
<td>110</td>
<td>275</td>
</tr>
<tr>
<td>Expected count</td>
<td>42.4</td>
<td>79.8</td>
<td>71.0</td>
<td>82.0</td>
<td>275.0</td>
</tr>
<tr>
<td>% of the total</td>
<td>6.2%</td>
<td>14.0%</td>
<td>12.8%</td>
<td>22.0%</td>
<td>55.0%</td>
</tr>
<tr>
<td>High scaffolding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>46</td>
<td>75</td>
<td>65</td>
<td>39</td>
<td>225</td>
</tr>
<tr>
<td>Expected count</td>
<td>34.7</td>
<td>65.3</td>
<td>58.1</td>
<td>67.1</td>
<td>225.0</td>
</tr>
<tr>
<td>% of the total</td>
<td>9.2%</td>
<td>15.0%</td>
<td>13.0%</td>
<td>7.8%</td>
<td>45.0%</td>
</tr>
<tr>
<td>Total</td>
<td>77</td>
<td>145</td>
<td>129</td>
<td>149</td>
<td>500</td>
</tr>
<tr>
<td>Count</td>
<td>77.0</td>
<td>145.0</td>
<td>129.0</td>
<td>149.0</td>
<td>500.0</td>
</tr>
<tr>
<td>Expected count</td>
<td>15.4%</td>
<td>29.0%</td>
<td>25.8%</td>
<td>29.8%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of the total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Pres: Prescriptive role
2. Info: Informative Role
3. Conf: Confronting Role
4. Cata: Catalytic Role

4.3. Teachers’ SRs and their qualification

At the final stage, teachers’ SRs were studied in association with their degree of qualifications. Interestingly, the findings of the Chi-Square indicated a significant association ($\chi^2=13.453, p = .004, \Phi$ and Cramer’s $V = .004$) between the catalytic role
(18.6%) and the more-qualified teachers. However, less qualified teachers made significant use of confronting roles in comparison with the more-qualified ones (15.2% >10.6%). (See Table 6)

Table 6. Cross-tabulation of teachers’ qualification and their SRs.

<table>
<thead>
<tr>
<th></th>
<th>Pres 1</th>
<th>Info 2</th>
<th>Conf 3</th>
<th>Cata 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Less-qualified</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>41</td>
<td>69</td>
<td>76</td>
<td>56</td>
<td>242</td>
</tr>
<tr>
<td>Expected count</td>
<td>37.3</td>
<td>70.2</td>
<td>62.4</td>
<td>72.1</td>
<td>242.0</td>
</tr>
<tr>
<td>% of the total</td>
<td>8.2%</td>
<td>13.8%</td>
<td>15.2%</td>
<td>11.2%</td>
<td>48.4%</td>
</tr>
<tr>
<td><strong>More-qualified</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>36</td>
<td>76</td>
<td>53</td>
<td>93</td>
<td>258</td>
</tr>
<tr>
<td>Expected count</td>
<td>39.7</td>
<td>74.8</td>
<td>66.6</td>
<td>76.9</td>
<td>258.0</td>
</tr>
<tr>
<td>% of the total</td>
<td>7.2%</td>
<td>15.2%</td>
<td>10.6%</td>
<td>18.6%</td>
<td>51.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>77</td>
<td>145</td>
<td>129</td>
<td>149</td>
<td>500</td>
</tr>
<tr>
<td>Expected count</td>
<td>77.0</td>
<td>145.0</td>
<td>129.0</td>
<td>149.0</td>
<td>500.0</td>
</tr>
<tr>
<td>% of the total</td>
<td>15.4%</td>
<td>29.0%</td>
<td>25.8%</td>
<td>29.8%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

1. Pres: Prescriptive role
2. Info: Informative Role
3. Conf: Confronting Role
4. Cata: Catalytic Role

5. Results and discussion

Within language classrooms, as an instance of the socio-cultural community, learning happens as a result of the teacher and the learners’ goal-directed interactions and shared social practices through which the paramount role of dialogic mediation and, most significantly, scaffolding come to light. Teachers’ scaffolding efficacy is reliant on a number of factors, the most conspicuous of which can be summarized as conditions for scaffolding, coordination of scaffolding, and course of scaffolding (Michell & Sharpe, 2005). Scaffolding conditions, such as contingency, inter-subjectivity, transcendence, and goal-directedness are a few required features which turns the teacher-learner interaction into a genuine scaffolding context. Coordination of scaffolding refers to the crucial element of balancing between challenge and support to maintain learners’ interest in problem-solving. And finally, the course or the trajectory of scaffolding commences with teacher-regulated activities and moves on to learner-regulated activities as the learners become more autonomous. Interestingly, Heron’s model is in harmony with the above-mentioned factors, thus, employed in the present study to provide the bedrock for the comparative analyses of the teachers’ SRs.

The statistical results revealed a significant difference between the authoritative and the facilitative roles in EFL teachers’ strategy use. The dominant employment of cognitive, social, and meta-cognitive categories was observed in the authoritative roles, whereas affective SF was more frequently employed by the teachers with the catalytic role. In other words, the more teacher-directed and highly supported the SFCs turn, the more strategies are employed and SRs shift toward authoritative roles. Conversely,
facilitative roles are closely associated with fewer strategy employment, low support, and more learner-directed SFCs.

The shift of SRs provision from authoritative to facilitative roles in SFCs is in harmony with the scaffolding course or trajectory, i.e., a shift from other-regulation to self-regulation. Self-directedness and autonomy, an ultimate goal accentuated by Heron (2001), can be achieved merely though the shift from practitioner-directed toward client-directed interventions and this procedure happens through fading (Figure 4) which is also illustrates in the decreased frequency of SSs use in SFCs. This result is consistent with Kostouli’s (2005) statement that SS use diminishes as learners become more independent. Fading, the underlying basis for the obtained results, refer to the gradual withdrawing of assistance or the handover by the expert as the learner becomes more autonomous and takes over the responsibility for learning. Collins, Brown, and Newman (1989) note that fading is a gradual process through which the frequency, explicitness, and specificity of the strategies diminishes. Fading is the pivotal key to the efficiency of scaffolding and autonomy achievement as paying little heed to the timing of assistance removal culminates in fossilization or prolonged reliance on teachers’ support (Ohta, 2000; Johnson, 2003). Without fading, the crucial element of the balancing between the challenge and support provided by the task is ignored. This balance is a prerequisite for successful learning which can create a sense of flow in the learners to enable them to focus on the task at hand (Van Lier, 1996, 2007; Michell & Sharpe, 2005; Thompson, 2013). As Murray and Arroyo (2002) indicate, Challenging but not overwhelming tasks are of a great priority to diminish learners’ distraction, frustration, and lack of motivation.

With regard to the increased level of affective SF, it can be stated that as the context becomes more challenging, the mediators enhance learners’ motivation through increased level of emotional support. In this regard, Heron (2001), as well as Wood et. al. (1976) underscore the adjusted degree of support and the maintenance of learners’ frustration at a minimum level through enriched support to pave the way for learners’ autonomy achievement and self-directed learning.

Despite the decline in the usage of cognitive, meta-cognitive, and social SFs, no significant difference was observed in cultural and linguistic SFs employment. Cultural scaffolding, as Pawan (2008) regards, is the application of cultural and historical tools that are familiar to the learners to support their learning. Therefore, it encompasses the usage of Iranian culture and L1 in SFCs to facilitate the learners’ self-directed learning. Despite the support of L1 use in the literature (e.g., Auerbach, 1993; Grim, 2010; Carson & Kashihara, 2012), most Iranian institutes inject a note of caution in teachers’ perception and attitude with regard to the use of L1. Therefore, the entire omission of L1 in most Iranian English classes can be referred to as the probable underlying reason. In the same line, Díaz (2009) compares and contrasts NEST and non-NEST teachers and finds out that NEST teachers surprisingly rely more on
translation than non-NESTs. This might be due to the teaching methods that ban the use of mother tongue in such classes. Furthermore, Pawan (2008) highlights the point that teachers’ inadequate employment of cultural scaffolding may be related to their insufficient knowledge. Therefore, awareness enhancement through training might change the result.

Figure 4. A comprehensive portrayal of teachers’ SRs obtained results.

With regard to the relative importance of form and meaning, Kramsch (2004) regards meaning with favor and seeks teachers’ support to transcend language form and concentrate on different meaning types including social, cultural, and grammatical. As a result, the teachers might have had paid more attention to meaning which in turn resulted in the lack of significant difference in their linguistic SF. Furthermore, as learners in this study lay in elementary and intermediate levels, the production of the context-appropriate form is challenging for them. Therefore, the same level of linguistic support is required to assist them in the language production. This conscious attention to the linguistic medium at early stages of language learning and at all stages in structure-oriented language classrooms is what Littlewood (2011) highlights. The findings can also be discussed from a third perspective, namely focus-on-form instruction (Long, 1991) which stresses the inseparability of form and meaning. This type of pedagogical practice has been classified by Dalili (2011: 2119) into six subsections all of which underscore the simultaneous focus on “both form and meaning, both explicit and implicit knowledge/learning, and both accuracy and fluency”. They include process instruction (i.e., structured input with the focus on comprehension of forms), textual enhancement (i.e., visual/typographical enhancement to increase noticing of form as well as meaning communication), interational feedback (i.e., the usage of conversational devices to direct learners’ self-correction), instructional conversation (i.e., scaffolding through teacher learner meaning-based interactions to overcome form difficulties), focused communicative tasks (i.e., meaning-based communicative tasks which direct learners to the usage of a specific form in their output), and discourse-based approaches (i.e., the use of
contextualized grammatical points in authentic corpora). In sum, SFCs, as one type of instructional conversations, amalgamate form and meaning as inseparable entities.

5. Pedagogical implications

The findings of the study can be of significance in terms of EFL teachers’ pedagogical perception enhancement which in turn can improve their practice and progress. The teachers’ acquisition of conscious knowledge about their SRs and the required SFs and SSs with regard to the learners’ level and appropriate context can improve their pedagogical perception about their choices and practices in the class. Owing to the close association among teachers’ practice, perception, and progress, as Yu (2004) asserts, teachers’ and learners’ progress are closely inter-related with their pedagogical perception. Using such knowledge, they can enhance the effectiveness of their teaching practices. This close inter-relationship among these three factors is illustrated in Figure 5 according to which teachers construct their practices based on their perceptions both of which will directly impact the teachers’ and learners’ progress. Interestingly, practice, and progress will also reconstruct teachers’ perceptions.

In the same line, Van Lier (1996) voices his support and asserts that scaffolding fosters teacher’s perception of learners’ abilities, needs, and interests through constant monitoring of learners’ performances. Similarly, Perry, Hutchinson, and Thauberger (2008) assert that increasing awareness of such strategies enables the teachers to incorporate them in all aspects of their teaching and learning environment and become more flexible and sensitive to learners’ needs. Likewise, the heightened awareness can result in pattern recognition (Bereiter, 1997; Kennedy, 1999) which in turn fortifies teachers’ sensitiveness to the learners’ actual level of competence (Andrews, 2007). As Tsui (2009) and Berliner (1986) note, pattern recognition and meaningful interpretation of the patterns owing to their teaching experience is what distinguishes expert teachers from novices. These improvised patterns can be recognized and novice can get acquainted with them to expand this very ability.

![Figure 5. Inter-relationships among perception, practice, and progress (Yu, 2004: 4).](image)

Besides, this crucial factor is highlighted by Prabhu (1990: 173) who refers to the teachers’ sense of plausibility and stresses that the value of teaching lies in teachers’
capacity to make teaching “active, alive or operational enough to create a sense of involvement for both teachers and students”. Therefore, the development of SR model is practically beneficial owing to enhanced teachers’ awareness and sensitiveness of such strategies and their application.

In conclusion, Heron’s model seems to provide a sound basis for the identification and comparison of EFL teachers’ SRs as the results in this study confirms the SCT concepts, specifically graduated support and fading, within which the teachers’ choice of SFs, degree of support, and the link between their qualification and strategy choice is entirely justifiable. Needless to say, further investigation is required to confirm the SR model practicality.

REFERENCES


